Taunton Deane Borough Council

Executive - 12 October 2011

Taunton Car Parking Strategy 2011 - 2021

Report of the Strategic Director and Civil Contingencies and Parking Services Manager
(This matter is the responsibility of Executive Councillor Edwards)

1. Executive Summary

The most recent review of car parking provision for Taunton occurred in 2008 (Executive May 2008). Closure of some of the town centre car parks has now occurred and time scales for development in other parts of the town centre have changed. The economic downturn and the opening of the second Park and Ride have also had an impact on parking behaviour. This strategy looks at the period 2011 – 2021, although it is recognised that it will need further review at regular intervals within this period. The strategy mainly deals with the question of availability of spaces to meet demand although the potential financial impacts are dealt with within section 4 of this report.

2. Background

The last report to the Executive on this subject was in May 2008. That report looked at both the availability of spaces and the future impact on Taunton Deane's revenue funding. Three years further down the line, some of the closures have occurred and there is a clearer understanding of when other closures may occur. The second County Council Park and Ride facility, at Taunton Gateway (J25), has also opened. This update of the strategy deals with the numbers of spaces predicted as needed to meet demand within Taunton over the next 10 year period – though clearly it will need regular review and updating during that period. It looks at a number of management issues by which more spaces can be made available as well as recommending some car parks remaining open in the medium term.

The financial implications for the preferred option in the strategy are dealt with within section 4 of this report. However, it is clear that the economic downturn and the opening of the park and ride are also having a significant impact on the revenue generated from pay and display. This is something that must be considered as a corporate issue, and perhaps some of the recommendations in the May 2008 report (investment of

capital income to produce returns) taken forward. This will be considered as part of the Budget Review programme.

3. The Strategy Options

The objectives, options and a description of the measures are found within the strategy document at Appendix A. The conclusions reached are for discussion and it is recognised that members may wish to reach alternative conclusions.

4. Finance Comments

The Medium Term Financial Plan already picks up the potential loss of income from the redevelopment of the retail centre in the town centre. The viability of this scheme is still marginal and the developer would need to take all the income from the parking provision to make it work. However, the discussions on the terms for any agreement are still to be had and we will want to ensure that as the economic situation improves and schemes become more profitable, that some return will be available for Taunton Deane. However, for the purposes of the MTFP a loss of £900k is identified, which is the worst case scenario based on closure of the two multi-storey car parks with no replacement funding stream.

All of the options for better space and traffic management identified in the Strategy have financial implications. Some options are inter-related and the overall impact will depend on decisions made, and, not least perhaps, on reactions and changes in behaviour by motorists.

5. Legal Comments

The Council's car parks are governed by the Off-Street Parking Places Order 1985 (as mended). Any proposals to alter charging times, tariffs or classes of vehicles subject to charges or limit duration of stays will have to be taken through the formal public process to amend the Order

6. Links to Corporate Aims

The provision of car parking is a key element of Project Taunton which links to the Corporate Aim Regeneration.

7. Environmental Implications

Included in the aims of the strategy are: reducing congestion and making a better town centre environment.

8. Community Safety Implications

No particular issues identified. Any new car parking would need to consider safety as part of the design and operation.

9. Equalities Impact

If members choose to support the proposed changes to the parking of Blue Badge Holders, a full equalities impact assessment will be required.

10. Risk Management

There are considerable reputational risks and risks to the local economy if the Council does not take a longer term and strategic view on the supply of parking spaces to meet demand within the town centre.

11. Partnership Implications

Somerset County Council has provided extremely valuable assistance in modelling the options contained within this report.

12. Scrutiny Committee

Scrutiny Committee debated the Strategy on 22 September. Members welcomed the review, felt the document was very thorough and reaffirmed the existing strategy of maintaining town centre spaces primarily for shoppers and visitors whilst encouraging commuters and long term parkers to use Park & Rides sites or other peripheral car parks. They were broadly supportive of Package 2, although some concerns were expressed on Sunday charging. Other issues specifically mentioned were future demand for spaces, disabled parking provision and charges, RingGo, motor cycle and bicycle parking, electric vehicles and the impact of public transport.

13. Recommendations

The Executive is recommended

(i) To approve the Strategy;
(ii) To agree to a phased implementation of Package 2 as the best range of options to achieve the aims, including
- restricting some car parks to short-stay only;
- adjusting disabled parking length of stay;
- encouraging use of Park & Ride;
- adjusting the charging scheme and reviewing payment methods;
- charging on Sundays;
- increasing fees on long stay; and
- providing better information to users

(iii) To require further work, and consultation as appropriate, on the above to be undertaken prior to implementation and in particular

- car park usage, travel habits and modelling of the impact of travel planning
- costs of alternative space provision as part of a phased approach to retail redevelopment
- useage by Blue Badge Holders

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Taunton Car Parking Strategy

2011-2021

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August 2011

Revision	Purpose	Summary of changes	Originator	Date
Version 1.0	Report to Scrutiny Committee		JDL	31.08.11

TAUNTON PARKING STRATEGY REVIEW

Executive Summary

This Strategy has been produced in order to realign parking requirements for the future in light of the recent economic downturn.

The aims of this Strategy are to identify measures to:

- Reduce long stay in town centre;
- Increase supply for shoppers;
- Create a better town centre environment;
- Reduce congestion; and
- Make the transport network more efficient.

The timescale for this Strategy looks to a 10-year period from 2011 to 2021, with a provision for interim review and update every two years to reflect any changes in circumstance and to look at the Project Taunton achievements and proposals. Data has been examined to determine:

The Current Situation

- Existing Car Park Capacity
- Ticket Pricing
- Park and Ride
- Analysis of Car Park Data
- Current Demand for Pay and Display Car Parks
- Length of Stay in pay and Display Car Parks
- Current Demand for Park and Ride Car Parks

Future Proposals

- Planned Changes to the Car Parks
- Impact of Car Parking Closures

This identified that commuter parking supply is likely to be adequate up to 2021 but shopper parking supply would fall short over the same time period.

From this, a number of options were identified and drawn up into Packages to address shortfall in shopper car parking.

It is recommended that TDBC pursue a light-touch approach in the short term (1-2 years) as part of Package 2. This will include:

- Restrict some car parks to short-stay only;
- Adjust Disabled Parking Length of Stay; and
- Efficiency Options:
  - Adjust Charging Scheme;
  - Increase parking fees on long stay;
  - Provide better information to users; and
  - Review Payment Methods.

Following further assessment, implementing the remainder of Package 2 (a Smarter Choices-based approach) is most likely to achieve the strategy objectives and it is recommended that this is pursued in the longer term. This includes:

- Retain Castle Street and Enfield
- Encourage shoppers to use Park and Ride; and
- Efficiency Options:
    - Implement Charges on Sundays; and
    - Increase Motorcycle Spaces.

Package 2 would also align well with the Somerset Future Transport Plan 2011-2026 (FTP) and the Bridgwater, Taunton and Wellington Future Transport Strategy (formerly TTSR2) 2011-2026, which supports the reduction in congestion and the improvement in traffic management. A more engineered-led Package (Package 3) does not align as well with these transport strategies because it is likely to attract more vehicles to the town centre, which will increase congestion and be contrary to traffic management initiatives.

1. Introduction

1.1 Background

The Parking Strategy for Taunton originates from the late 1990s when various options for improving traffic and congestion management in the town were proposed. The original Strategy was produced jointly between Taunton Deane Borough Council (TDBC) and Somerset County Council (SCC).

The main aims were to

- reduce the number of short distance vehicle trips within the town;
- encourage all day parkers to use car parks on the outskirts of the town, leaving the central car parks for use by shoppers and visitors, using tariffs as the main mechanism for influencing use;
- provide Park & Ride facilities on the main east and west approaches to retain and grow Taunton's position as an economic hub; and
- introduce Decriminalised Parking Enforcement (later Civil Parking Enforcement (CPE)) to achieve better use of the highway network, including residents parking schemes and on-street charging, where appropriate

The Strategy was developed alongside the County Council's Local Transport Plan, the Urban Design Framework, and the Vision for Taunton aspirations.

It was reviewed in 2005 by W S Atkins, and again in 2007 by Parsons Brinckerhoff, with reports going to the TDBC Executive. The latter review looked at the effect of the first Park & Ride site at Silk Mills, the latest developments and timetable for the Project Taunton initiatives, and the overall need (demand) for off-street parking provision.

It is now prudent to review the position again in the light of:

- TDBC's proposed Core Strategy;
- the current Project Taunton timetable;
- the Taunton Town Centre Action plan;
- changes in Planning Policy advice from Central Government;
- the newly adopted Somerset Future Transport Plan (2011-2026)
- the planned introduction of county-wide CPE; and
- the present economic climate.

'Project Taunton' is one of the largest town centre regeneration programmes in the South West. It is a multi-million pound programme of improvements for Taunton, ensuring a sustainable and prosperous future for Somerset's principal town. Within the town it will help create 2,200 new homes and 6-7,000 new jobs. Project Taunton will also provide 67,000m^2 (gross) retail space and a further 85,000m^2 of other commercial floorspace including office and leisure uses. Across the Borough Council's area there is provision for around 17,000 new homes over the period 2008-2028. Some of the redevelopment proposals will require closure of car parks and provision of replacement parking stock.

1.2 Review of Parsons Brinckerhoff Study

In 2007, Parsons Brinckerhoff undertook a study 'Taunton Parking Strategy Review' to determine likely capacity requirements for parking demand in Taunton until 2021. This was based on data used in an earlier study in 2006 by WS Atkins 'Taunton Parking Study: Development Review' and data that Parsons Brinckerhoff collected as part of the study. The Parsons Brinckerhoff report was updated in 2008 and showed that, based on their work, there would be a shortfall in shopper/short stay parking but commuter/long stay parking provision was adequate and would more than likely have an oversupply in the future when both park and ride sites were built to capacity. The report presented a number of different options to mitigate the short stay shortfall.

One issue the current Strategy has identified with the Parsons Brinckerhoff and WS Atkins work was that the parking numbers used to make the calculations were incorrect, assuming 5722 spaces in total. Data provided by Taunton Deane Borough Council and an audit of car parks undertaken in October 2010 by Somerset County Council suggests that at the time of these studies there were in the region of 5540 spaces in Taunton.

1.3 Aims, Objectives and Strategy Timescales

The underlying context of the Strategy remains the requirement to manage the impact of congestion within the town whilst ensuring adequate parking provision for those needing to bring vehicles into the town for shopping, visiting or commercial purposes.

The aims of this Strategy are to identify measures to:

- Reduce long stay in town centre;
- Increase supply for shoppers;
- Create a better town centre environment;
- Reduce congestion; and
- Make the transport network more efficient.

The timescale for this Strategy looks to a 10-year period from 2011 to 2021, with a provision for interim review and update every two years to reflect any changes in circumstance and to look at the Project Taunton achievements and proposals.

1.4 Methodology

This is to be examined in the light of the aims mentioned in 1.3 above by considering:

- current usage of existing car parks, including location and tariff;
- the impact of the current Park & Ride provision;
- current national and local policies in relation to tariff;
- nature of charging regime, e.g. Pay & Display, Pay on Exit etc;
- approved Project Taunton developments; and
- planned Project Taunton developments.

Issues currently not taken into consideration include:

- the effect of new road schemes (TTW and NIDR[1]);

[1] Taunton Third Way and Northern Inner Distributor Road

- the impact of future additional Park and Ride provision; and
- potential effect of changes to on-street provision.

2. The Current Situation

2.1 Existing Car Park Capacity

Since Parsons Brinckerhoff's work was done, Old Gas Works, a private SCC car park, Greenbrook Terrace and Livestock Market have all closed. This means that the existing stock of car parking spaces in Taunton is currently 4880 (including 1565 private spaces belonging to supermarkets, Somerset County Cricket Club and Network Rail). This means approximately 2/3^{rds} of the parking stock is under TBDC control. This data is shown in Table 2.1. The location of these car parks are shown in Figure 2.1.

Location	Ownership	Number of Commuter Spaces	Number of Shopper Spaces
Belvedere Road	TDBC	0	110
Canon Street	TDBC	0	288
Castle Green	TDBC	0	61
Castle Street	TDBC	0	70
Coal Orchard	TDBC	0	110
Crescent	TDBC	0	226
Cricket Ground	Private	200	0
Duke Street	TDBC	0	58
Elms Parade	TDBC	0	27
Enfield	TDBC	197	0
Fons George	TDBC	0	83
High Street	TDBC	0	257
Kilkenny	TDBC	259	0
Lidl	Private	0	77
Marks & Spencer	Private	0	59
Morrisons	Private	0	436
Orchard Multi Storey	TDBC	0	553
Priory Bridge Road	TDBC	464	0
Railway Station	Private	200	0
Sainsbury's	Private	0	263
Tangier	TDBC	247	0
Tesco	Private	0	330
Victoria Gate	TDBC	73	0
Whirligig	TDBC	0	36
Wood Street	TDBC	0	196
TOTAL		**1640**	**3240**

Table 2.1 showing total current parking provision at March 2011.

During Summer 2011, it is likely that some of the car parks will be closed or changed. These are discussed in more detail in Section 3.

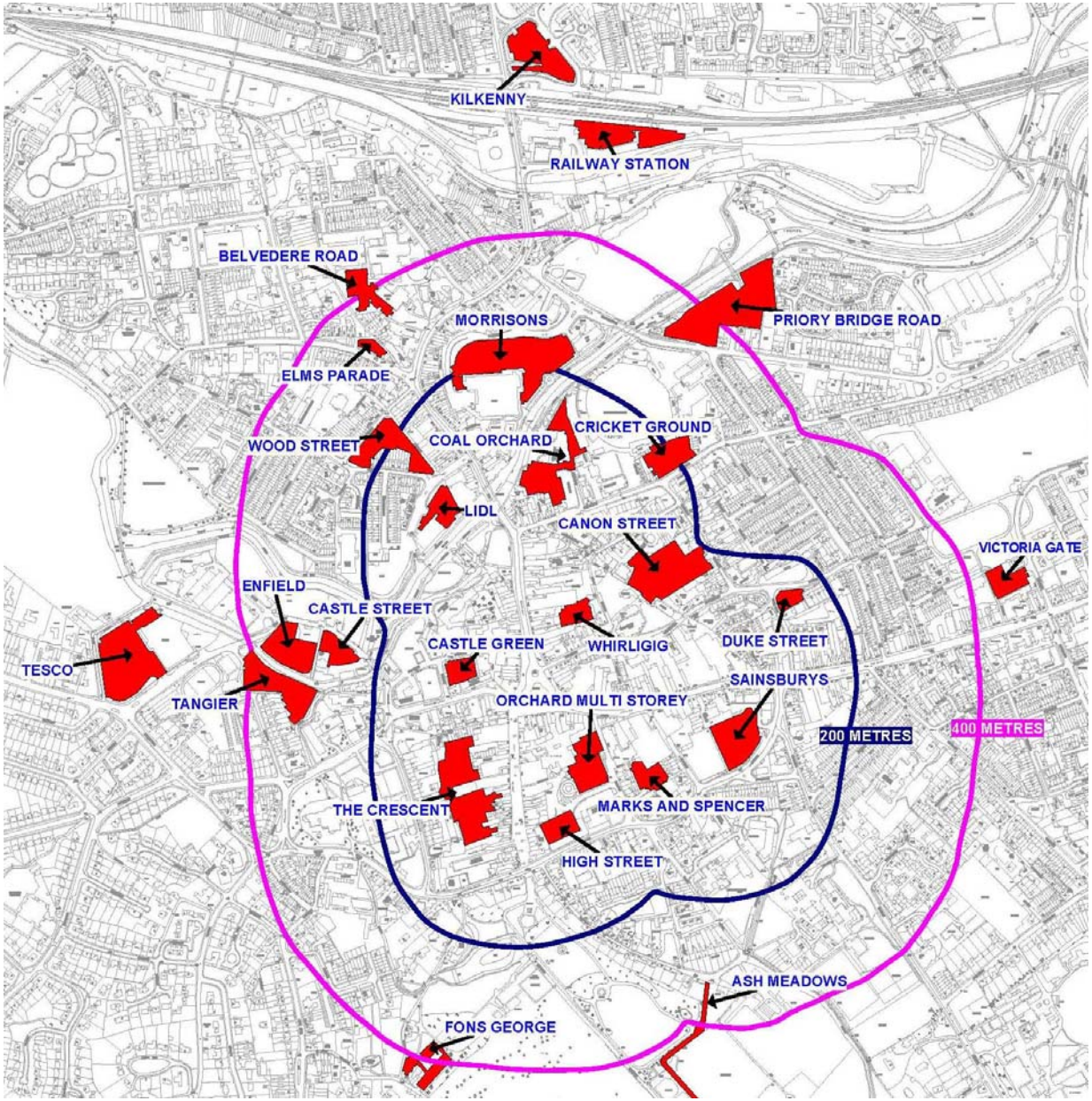


Figure 2.1 – Location of car parks within Walking Distance of the Shopping Area.

200m - All car parks within this area are designated Shopper.

200m to 400m - All car parks within this area are designated Shopper apart from Enfield, Priory Bridge Road and Tangier – all Commuter.

Beyond 400m - All car parks within this area are designated Commuter.

Based on a medium walking speed of 3mph (www.walkit.com), 200m will take 2 and a half minutes to walk and 400m will take 5 minutes to walk.

Privately-owned car parks have also not been included in any detailed analysis of current trends, along with 4 existing public car parks that were likely to skew current trend analysis due to their unique nature. These are shown in Table 2.2:

Castle Green	Limited Waiting of 2 hours and likely to be closed in the next 6 months.
Fons George	Located on the 400m perimeter from the town centre and not near any retail premises. It has a 6 hour maximum stay and its primary purpose is to serve leisure use at Vivary Golf course and Park.
Shire Hall (County Hall)	Limited to use on a Saturday as used privately during the week.
Whirligig	Limited Waiting of 2 hours and only provides 36 spaces in total. Plays a role for those needing to make a very short visit to Taunton Town Centre.

Table 2.2 Public Car Parks not considered during current trend analysis

However, all of these car parks have been included in future trend predictions.

2.2 Ticket Pricing

Table 2.3 shows the current TDBC car park pricing structure, as of March 2011. Of note are the three different tariffs. Whirligig and Castle Green are not represented. Charges apply on Saturdays and Bank Holidays but not Sundays.

	Up to	
	1 hour	£1.20
Shopper 1 Car Parks	2 hours	£2.00
Canon Street	3 hours	£2.70
Coal Orchard	4 hours	£3.40
Crescent (maximum stay 4 hours)	5 hours	£5.70
High Street,	6 hours	£6.10
Orchard Levels 1, 1A, 2, 2A, 3 and 3A	7 hours	£7.00
	Over 7 hours	£7.60

	Up to	
	1 hour	£1.10
Shopper 2 Car Parks	2 hours	£1.80
Ash Meadows (maximum stay 3 hours)	3 hours	£2.10
Belvedere Road	4 hours	£2.60
Castle Street	5 hours	£3.70
Duke Street	6 hours	£4.40
Elms Parade	7 hours	£5.20
Fons George (maximum stay 6 hours)	Over 7 hours	£5.90
Orchard Levels 4, 4A, 5 and 5A		
Wood Street Shire Hall/The Well/County Hall Car Park (Saturdays)		

	Up to	

Commuter Car Parks Enfield Kilkenny Priory Bridge Road Tangier Victoria Gate	1 hour	£1.10
	2 hours	£1.80
	3 hours	£2.10
	4 hours	£2.60
	5 hours	£3.50
	6 hours	£4.30
	7 hours	£4.60
	Over 7 hours	£5.10

Table 2.3 Car Park Charges for Taunton

All of these car parks are pay and display. All TDBC car parks operate RingGo, which allows users to book their car into the car park over the phone without displaying a ticket. The latest data shows that 8% of parking charges are currently paid for using RingGo (2010/11). Long stay is currently defined as over 7 hours.

2.3 Park and Ride

Since the last review, Gateway Park and Ride (east of M5 J25) has been completed. A planned extension to the Silk Mills site has been postponed due to the economic downturn and lack of current demand. Data is shown for the park and ride sites from November 2010 to mid June 2011[2]:

	Silk Mills – Cars Capacity - 600	Gateway – Cars Capacity - 1000	Ticket Sales
Total Daily Average	344 (57%)	313 (31%)	1030
Weekday Average	375 (63%)	344 (34%)	1106
Saturday Average	178 (30%)	153 (15%)	625

Table 2.4 Average Car Occupancy and Ticket Sales at the Park and Ride sites

It is also possible to identify the average people per car overall based on tickets purchased (not including data on Season tickets):

	People per car
Weekdays	1.5
Saturday	1.8

Table 2.5 Average People per Car at Park and Ride sites

Clearly there is still plenty of capacity within both car parks for these to take on further demand in the short to medium term.

Pricing for the Park and Ride is as follows (July 2011):

- Adult Day Return - £2.20; Child Day Return - £1.30 (5-15 years old inclusive);
- Shopper Special Ticket - £1.50 per car. Valid for up to 5 people travelling in the same car, who must travel together on both journeys. Available for use 10am to 4pm on Mondays to Fridays only;

[2] Note that this includes the Christmas period and snow affected days

- Group ticket - £5.50 (up to 5 people travelling together; valid on day of purchase only). This ticket makes travel into town even cheaper for groups of people who car share to the site;
- Weekly ticket - £9.00 or Flexirider - £11.00 (allows 12 single journeys; valid for one calendar month from day of issue);
- Calendar monthly ticket - £30.00 or Annual season ticket - £300.00.

Data from both the Silk Mills and Gateway Park and Ride sites[3] for an average weekday shows that most entries (72%) into the car park occur by 9.00am. Figure 2.2 shows entries into both sites over time during the day, which shows the peak time for entry is around 8am.

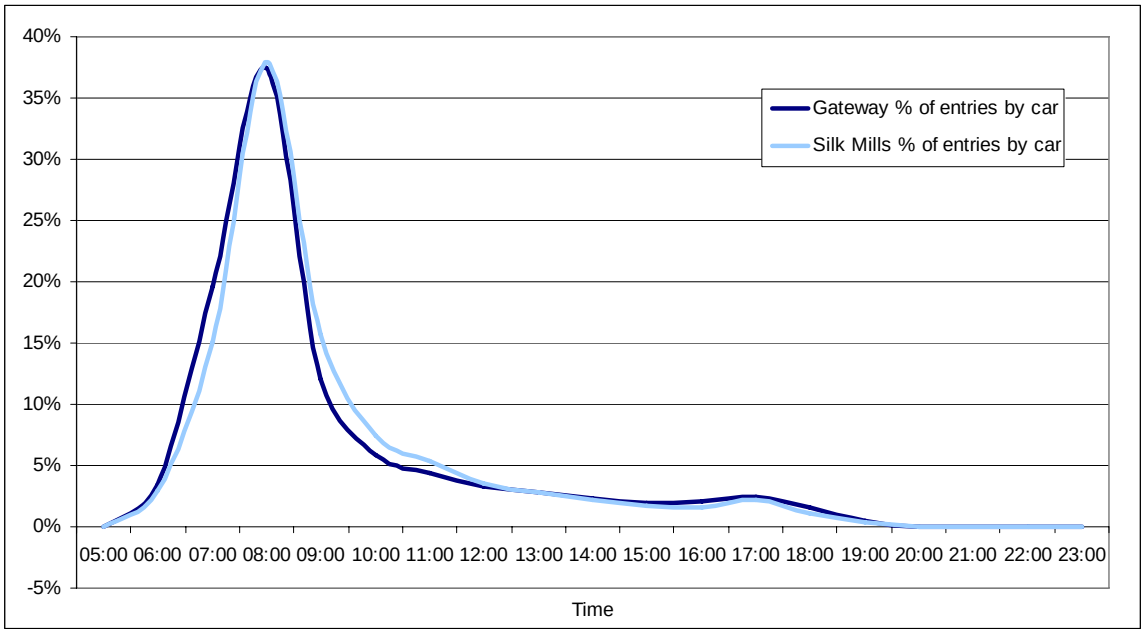


Figure 2.2 Entries by car at Silk Mills and Gateway Park and Ride on an average weekday (April 2010 to April 2011)

2.4 Analysis of Car Park Data

Figure 2.3 shows the total transactions for each month and the percentage split over time during the day. This data shows that length of stay in the car parks is broadly consistent during the year and that most shoppers/short stay users park for 2 hours or less. The exception is in December, where shoppers/short stay users park for up to 4 hours with a slight trend still shown at 5 hours. After this point, there is a significant fall in the number of tickets purchased for each hour until 7 hours and over. Statistical data of this pattern is shown in Appendix A.

[3] Automatic Traffic Counters at the entrance to the Park and Ride site

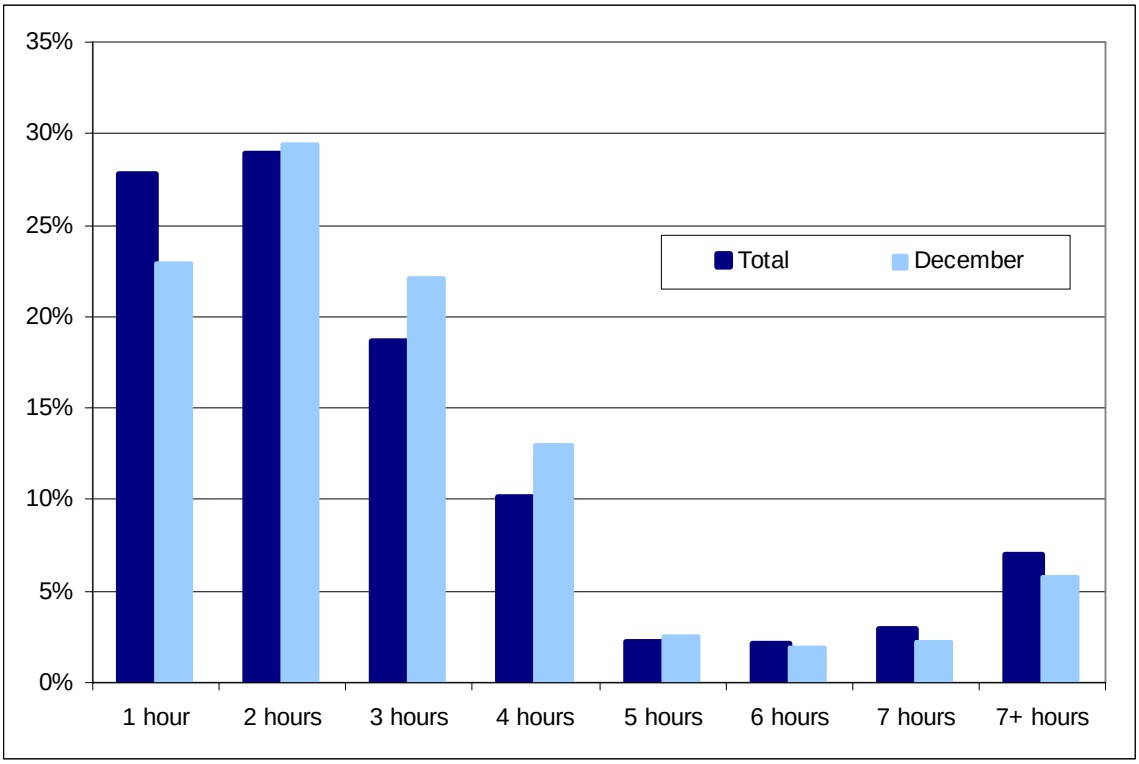


Figure 2.3 Percentage of tickets sold for each time period during the day in all car parks compared with December only, 2010/11

2.5 Current Demand for Pay and Display Car Parks

One way to determine current demand is to identify utilisation rates in each car park and correlate this against the available capacity. This will effectively give a percentage of the capacity that is currently used. In order to achieve this, In and Out surveys were conducted in October 2010. During the data collection process, the vehicle registrations were recorded on entry and exit of each car park, along with the time that this took place. Using software to match the registrations, it was possible to build a precise picture of the patterns of activity in each car park.

The data gives the number of vehicles in the car parks of every five-minute intervals between 7am and 6pm. From this, it is possible to identify the maximum number of vehicles in the car park at any one point in the day. However it should be noted that this does not necessarily mean that all those vehicles are parked. Some people may just drive in, wait for a short while or sometimes just leave straight away. Indeed 14% of all cars entering and exiting the car parks did so within the same five-minute period, indicating a drop-off or collection visit. The highest levels of this activity were identified in The Crescent and Elms Parade car parks.

By dividing the maximum number of spaces used per day in the remaining car park by the total number available, it was possible to establish how close to capacity each car park was (i.e. the utilisation of car parking). In some car parks, utilisation exceeded 100%. This included Castle Street, the Crescent and Belvedere Road. It was felt that in these three car parks, additional activity is taking place that changes the dynamic of the car park and skews the data and these are discussed below:

- Belvedere Road Within this car park there was a significant amount of long stay (likely to be from TDBC staff and residents over night), very short stay (especially between 12pm and 2pm) as well as activity likely to be generated by the Tone Leisure Centre. Due to the uncertainties in these patterns, it is unwise to use this data in capacity analysis.
- Castle Street The data from this car park showed a significantly higher utilisation to the spaces available. In practical terms it is not possible to explain this activity that may well be due to the location of the data collectors, the trips generated to the car park by the Castle Hotel as well as activity generated by taxis.
- The Crescent There were times during the day when utilisation exceeded capacity but it is likely this is in part generated by the existence of a motor repair shop, as well as most deliveries to the High Street accessing these locations via this car park. In addition the newly opened Tesco store has its own car park which would not have been included in the TDBC car park audit.

Due to the factors examined above, it was decided that these three car parks should be excluded from the overall assessment of existing demand. In addition, Enfield car park was not included in the original In and Out counts.

The data was combined to give an overall indication of utilisation. This was divided into Shopper and Commuter parking to ensure that neither datasets were skewed. This data is displayed in Appendix B. The calculations show the current demand for Shopper car parks is 83%. In Commuter car parks this figure is 34%.

2.6 Length of Stay in Pay and Display Car Parks

A further calculation was undertaken to identify the total length of stay of each vehicle that went in and out of the car park. All car parks except Enfield were included in this analysis. Average length of stay for all car parks is shown in Figure 2.4. This shows that Commuter car parks have the highest length of stay at the beginning of the day and this drops off as the day goes on. Shopper car parks also see a peak prior to 9am, which assumes commuters using these car parks, and a further peak around 11am, which is more likely to be shoppers. On average, people in commuter car parks stay longer than in shopper car parks.

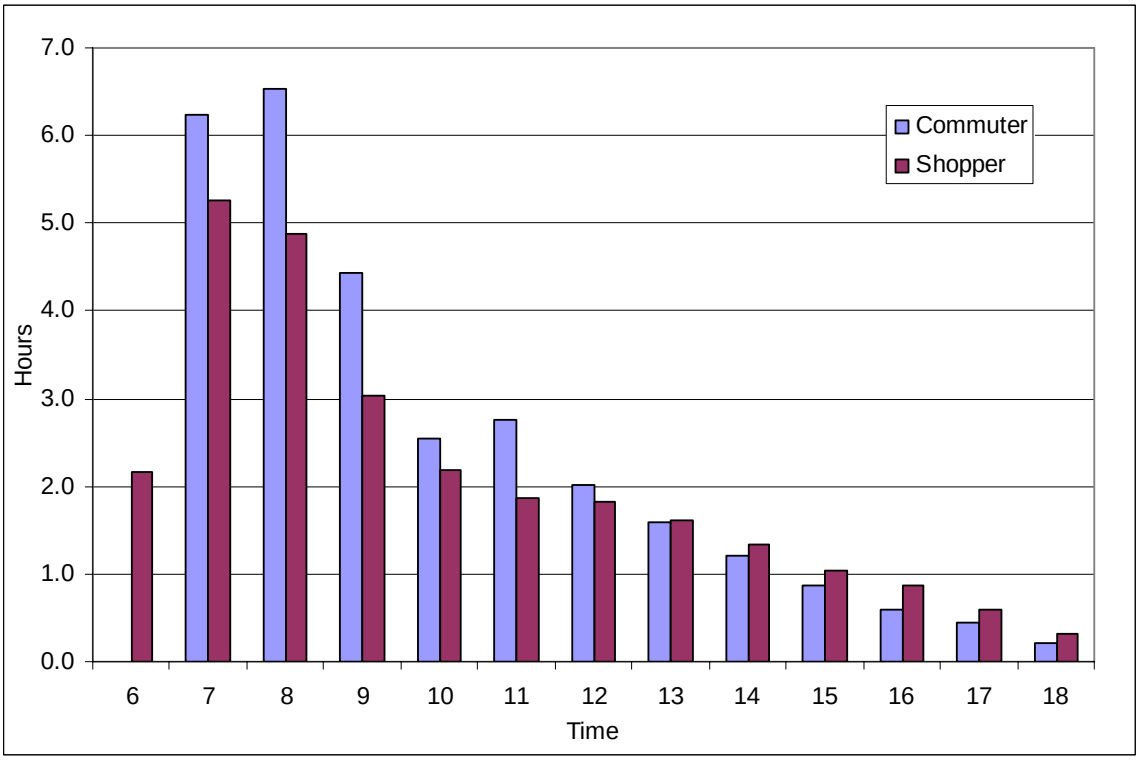


Figure 2.4 Average length of stay in Shopper and Commuter Car Parks by arrival time

In addition, Appendix C shows the proportion of vehicles staying up to a certain length of time, for example, 1 hour, 2 hours and so on in all car parks. Also shown is the proportion of vehicles staying for over five and over seven hours. This is broken down by car park location to show the car parks within 200m, within 400m and beyond 400m of the shopping area. This shows that within 200m of the shopping area, the majority of users stay for up to 2 hours. However it should be noted that in Duke Street, High Street and in Orchard Multi Storey, 11% of vehicles stay longer than five hours. This is important because all the car parks within 200m of the shopping area are designated as Shopper car parks. Clearly commuters are using these car parks for long stay purposes. In addition, of the Shopper car parks beyond 200m and within 400m of the shopping area, Belvedere Road and Castle Street both have high levels of occupancy over five hours (30% and 42% respectively). It is interesting to note within this category that Priory Bridge Road has low occupancy over five hours (8%) despite it being designated as Commuter car park. However, it is anticipated that the new development at Firepool will significantly increase demand for commuter car parking in this area. Beyond 400m, car parks are solely for commuter use and this is largely reflected in the patterns of length of stay. This supports the discussion in Section 2.4 regarding length of stay of users.

While commuters parking in shopper spaces isn't currently a problem in capacity terms, as spaces become more in demand in the future this could become an issue. It is also well known publicly that the lack of Traffic Regulation Order preventing returns within the day at the Crescent Car Park allows users to stay all day (by returning to buy an additional ticket as needed). Although The Crescent Car Park is a four hour maximum stay the Traffic Regulation Order does not prevent returns on the same day. Renewal of a parking stay can be affected with RingGo.

2.7 Short stay / long stay timescales

The current cut-off between short stay and long stay in TDBC car parks is 7 hours. Through our analysis of In and Out data and the data summarised in Section 2.6, it is clear that a short stay of up to 7 hours could easily accommodate commuter use and that commuters frequently park in designated shopper car parks. The Parsons Brinckerhoff 2007 Report defined short stay as over 6 hours, although this was based on historical best practice rather than evidence of use.

In order to define a more accurate cut-off for short and long stay, the In and Out data collected from shopper car parks was used. The length of stay in hours for every vehicle arriving between 9am and 4pm in these car parks was determined. This timeframe was chosen to specifically rule out any obvious commuter users prior to 9am and also to align with the typical retail opening timescale. The 90th percentile was taken from this data and came to 4.1 hours. The 95th percentile came to 5.6 hours. This means that more than 90% of users in shopper car parks stayed for less than 5 hours.

Additionally, the data in Figure 2.3 showing the percentage of tickets purchased for 5 hours or more give a representation of the amount of long stay users parking in short stay car parks. This shows a drop in ticket purchases between 4 and 5 hours.

Based on the above analysis, it can be assumed that short stay in shopper car parks is realistically up to 5 hours.

2.8 Current Demand for Park and Ride Car Parks

It cannot be assumed that people using the Park and Ride sites would automatically park in the town centre if the Park and Ride did not exist so although it provides additional capacity, different behaviours cause people to choose whether to park in the town centre or to park at a Park and Ride. Not all the people using the two sites will wish to travel to the town centre. Some people are also not prepared to pay for parking in the town centre. Furthermore, it is known that some people park and share or park and cycle from the two sites. It is not therefore possible to use the total mean value of use as the current demand for Park and Ride. Based on these externalities, it has been assumed that 75% of the average car park use at the Park and Ride sites contributes to the overall demand for car parking in Taunton.

3. Future Proposals

3.1 Planned Changes to the Car Parks

The Project Taunton regeneration work identified the car parks still to be redeveloped within Taunton:

Existing Car Park	Total Spaces	Total Number of Parking Spaces Lost	Original Predicted Year of Closure	Revised Predicted Year of Closure	Notes	Importance to Project Taunton (1-very important;3-mildly important)
Castle Green	61	61	2008	2011	Not counted in this study	1
Cricket Ground	200	200	2008	2013	Out of TDBC control	3
Coal Orchard	110	110	2009	2014		1
Tangier	247	40	2009	2013	Will lose spaces for coach parking	1
The Crescent	226	226	2011	Not closing		-
High Street	257	257	2011	2014	Reopen in 2017	1
Orchard Multi Storey	553	553	2011	2014	Reopen in 2017	1
Priory Bridge Road	464	264	2012	2011	Reduce to 200 & relocated at Firepool	1
Castle Street	70	70	2012	2016		3
Enfield	197	197	2012	2016		3
TOTAL	**2385**	**2062**				

Table 3.1 Car Parks likely to be required for Project Taunton regeneration plans

3.2 Impact of Car Parking Closures

Taking into consideration the above information and using it to project forwards to 2021, assessments of the demand and available capacity have been undertaken.

Commuter Parking Levels

Table 3.2 and Figure 3.1 represent the likely impact on commuter car parking supply and demand if the Project Taunton plans are implemented without any intervention to mitigate this change. Parking capacity declines steadily until 2014. At this point, it is assumed that the Silk Mills Park and Ride will be extended, increasing commuter supply, and parking supply remains static from this point forwards.

The commuter demand reflects the projected growth in non-residential (commercial) development (equating to 60,000m² of floor space), which is likely to take place over the next 10 years. This assumes that 1000 spaces will be required to accommodate this growth[4], with development tailing off after 2018. Commuter demand assumes a consistent rate of growth to 2018. The demand also assumes that all non-residential development will solely use public car parks. Realistically, at least some development will provide private spaces. For

[4] Parsons Brinckerhoff 2007 Report

more information on the previous calculations, see the Parsons Brinckerhoff 2007 Report.

Year	Commuter Do Nothing	Commuter Demand	Difference between capacity and demand	Notes
2010	3458	1057	2401	Current Usage inc P&R + those using shopper spaces
2011	3194	1182	2012	Priory Bridge Road - 264 reduction
2012	3194	1307	1887	
2013	2947	1432	1515	Tangiers Closed - 247
2014	3147	1557	1590	Silk Mills Extension + 400; Cricket Ground Closed - 200
2015	3147	1682	1465	
2016	2950	1807	1143	Enfield Closed - 197
2017	2950	1932	1018	
2018	2950	2057	893	
2019	2950	2057	893	
2020	2950	2057	893	
2021	2950	2057	893	

Table 3.2 Comparison of Commuter capacity and predicted demand

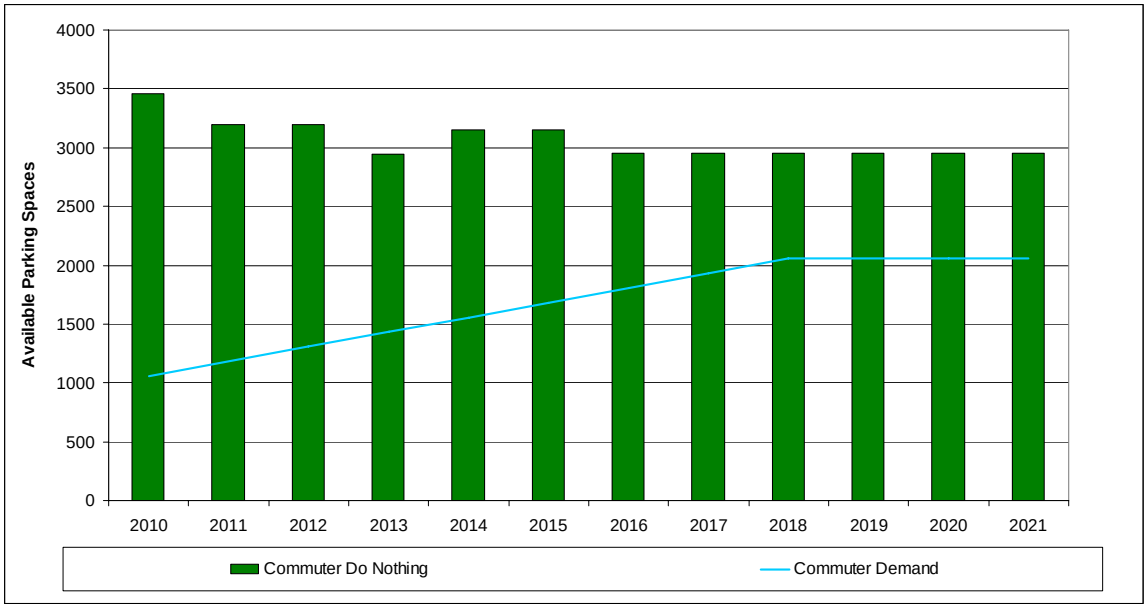


Figure 3.1 Future Demand - Commuter shown against current levels ('Do Nothing' approach)

Shopper Parking Levels

Table 3.3 and Figure 3.2 represents the likely impact on shopper car parking supply and demand if the Project Taunton plans are implemented without any intervention to mitigate this change.

The shopper demand reflects the assumption that an additional 721 additional parking spaces will be required to serve the predicted retail floor space increase of 50,100m² to 2021. More information on this report can be found in the Parsons

Brinckerhoff 2007 Report. This has been distributed evenly across the lifetime of the strategy and reflects the growth in population of the town through the Local Development Framework process. In addition, the IHT 2005 document 'Parking Strategies and Management' suggests that for retail parking, a degree of capacity should always be retained to allow for people circulating car parks looking for a space. It is suggested that this figure is somewhere between 10% and 15%. For the purposes of this strategy, this figure has been set at 10%.

Year	Shopper Do Nothing	Shopper Demand	Difference between capacity and demand	Shopper Demand +10%	Difference between capacity and demand +10%	Notes
2010	3022	2519	503	2771	252	Current Usage including reduction in spaces assumed to be used by commuters
2011	2961	2584	377	2842	119	Castle Green Closed - 61
2012	2961	2649	312	2914	48	
2013	2851	2714	137	2985	-134	Coal Orchard closed - 110
2014	2041	2779	-738	3057	-1015	High Street and Orchard MS Closed - 257 - 553
2015	2041	2844	-803	3128	-1087	
2016	1971	2909	-938	3200	-1228	Castle Street Closed - 70
2017	2781	2974	-193	3271	-490	High Street and Orchard MS Reopened + 553 + 257
2018	2781	3039	-258	3343	-561	
2019	2781	3104	-323	3414	-633	
2020	2781	3169	-388	3486	-704	
2021	2781	3234	-453	3557	-776	

Table 3.3 Comparison of Shopper capacity and predicted demand

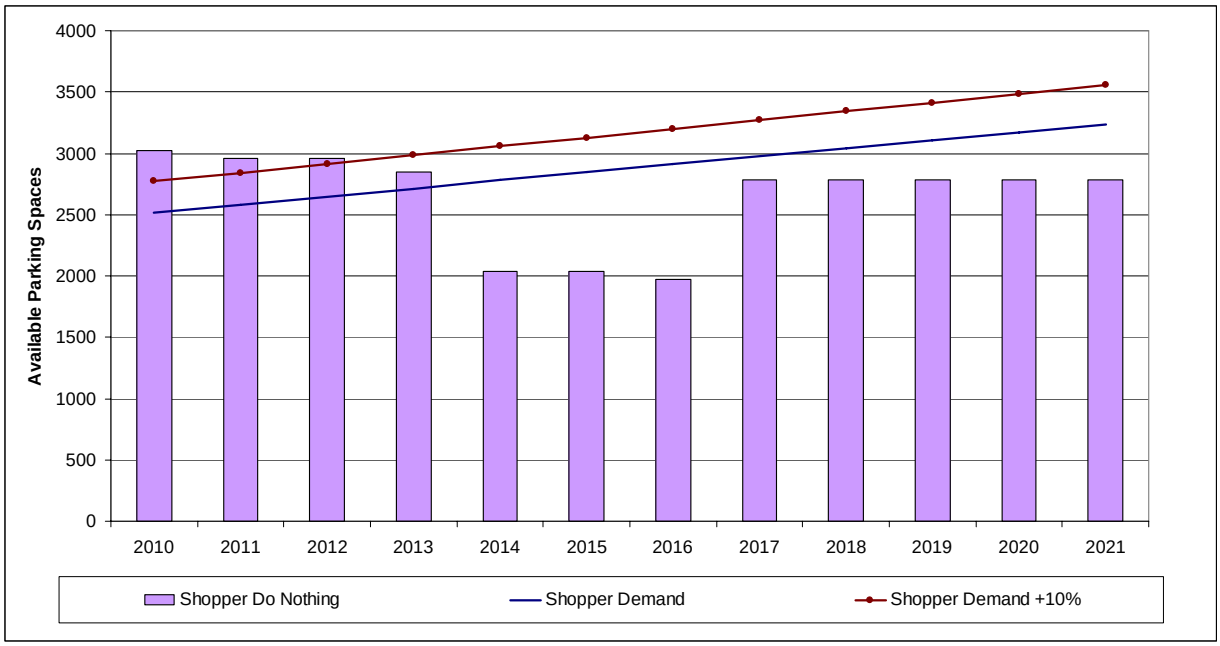


Figure 3.2 Future Demand - Shopper shown against current levels ('Do Nothing' approach)

4. Possible Strategies to Mitigate Shortfall

The data suggests that given the current provision for commuters, there should be sufficient parking to meet overall demand when taking into account the two Park and Ride sites available to users. It is assumed that the Silk Mills Park and Ride will be extended within the lifetime of the strategy. However, a number of options need to be considered to address the shortfall in public parking spaces for shoppers and short-stay visitors. In addition, other options are needed to address how the car parks function to see if they could be made more efficient or easier to use. Sections 4.1 and 4.2 look at these two sets of Options separately. The options are provided simply to give a scope of the range of measures that can be used to achieve the objectives, without a detailed assessment of how they may be implemented or supported. Section 5 examines how each option performs against the Strategy objectives and also at any pros and cons for each one.

4.1 Options to increase shopper capacity

All of the Options below work on the assumption that the Park and Ride sites have capacity to take displaced commuters from the town centre[5].

Option 1 – Restrict all commuter parking in the town centre

It is clear from the analysis that there is capacity within the existing car parking supply to accommodate shopping users from commuter parking stock if parking was to be unequivocally reallocated to meet shopper demand. An approach of limiting the length of stay and greatly increasing long-stay pricing would provide in the region of 700 additional spaces long-term to 2021. This option would apply to all TDBC-controlled car parks in Taunton. Commuters would be expected to use either the Park and Ride or private long stay car parking within the town centre. It is acknowledged that this option may prove difficult to implement and may not be appropriate given the lack of flexibility this would then mean for people wishing to park in Taunton.

Option 2 – Restrict some car parks to short-stay only

As discussed in Section 2.6, some commuters use short stay car parks for long stay use because there in no restriction on this activity. One way of addressing this would be to designate more car parking within the town centre (within 200m of the retail area) as short stay, rather than giving a choice of staying longer. Retaining some commuter parking both inside and outside of the 200m retail zone alongside the provision of the two Park and Ride sites should still provide sufficient provision for commuters, although this should be discouraged through a pricing mechanism. The short stay for shoppers would also encourage a higher turnover of users in the car parks. This option would make it more difficult (but not impossible) for commuters to park in the core of the town centre, prioritising available capacity for short stay retail purposes. As noted in Section 2.4, short stay should be set at 5 hours or less. Suggested car parks to include are:

- High Street;
- Orchard Multi Storey, potentially retaining some commuter parking at a premium;

[5] It should be noted that the Silk Mills P&R site has not yet been extended from 600 to 1000 spaces.

- Canon Street;
- Coal Orchard; and
- Realign the Crescent Traffic Regulation order to 4 hours, no return.

In order to determine the likely additional spaces that could be available, the percentage of users over 5 hours in these car parks was determined, using data summarised in Appendix C. However, it should also be noted that some of these car parks will be closed over the lifetime of this Strategy and therefore the total additional number of spaces is relatively low. It is anticipated that approximately 200 spaces are currently being used by commuters/long stay. However, more importantly, this process will create a behaviour change among users so that commuters are not encouraged to park in the town centre. Long stay parking will still be available in short stay car parks within 400m of the Town Centre at:

- Belvedere Road;
- Duke Street
- Elms Parade;
- Priory Bridge Road (Firepool);
- Tangier; and
- Wood Street.

Option 3 – Adjust Disabled Parking Length of Stay

The present charging policy allows blue badge holders to park without payment in any bay in any car park for any length of time. As Table 4.1 shows, there is an under provision in disabled spaces in some car parks[6], although Taunton Deane Borough Council has made progress in ensuring that car parks nearest the town centre have higher levels of disabled parking than those further away. This means that if disabled users turn up later in the day and wish to park, they may be forced to use standard bays.

Car Park	Percentage Disabled Bays
Canon Street	3%
Coal Orchard	7%
Crescent	3%
Duke Street	2%
High Street	0%
Orchard Multi Storey	1%
Wood Street	0%
Whirligig	19%
Belvedere Road	4%
Castle Street	4%
Elms Parade	0%

Table 4.1 Percentage of Disabled Bays at Shopper Car Parks in Taunton

This option proposes to restrict the time that blue badge holders can stay for free in marked disabled bays to 3 hours in line with current best practice. In addition,

[6] From DfT document 'Inclusive Mobility' For car parks associated with shopping areas, leisure or recreational facilities, and places open to the general public: A minimum of one space for each employee who is a disabled motorist, plus 6% of the total capacity for visiting disabled motorists.

more marked bays should be provided, particularly where demand is likely to be higher. Disabled users parking in unmarked bays would be expected to pay. Counts of current usage would be useful to determine existing demand.

Option 4 – Retain Castle Street and Enfield
As shown in Table 3.1, Castle Street and Enfield car parks are not as fundamental to the Project Taunton regeneration plans as the other car parks. An option is to retain these car parks and ensure they are both short stay only.

Option 5 – Retain Coal Orchard
There are currently plans to develop on the Coal Orchard car park and they have been identified as fundamental to the Project Taunton proposals. This option would retain Coal Orchard, which is likely to have an impact on the regeneration plans.

Option 6 – Encourage shoppers to use Firepool
Some of the commuter parking spaces to be provided by the proposed Firepool car park (Priory Bridge Road) could be re-allocated to shoppers in order to diminish the shortfall in town centre parking. The location of this car park will be beyond the desirable walking distance of 200 metres from the edge of the Primary Shopping Area. Therefore, due to the distance from the town centre core area, this is possibly only an option for very mobile shoppers/short stay visitors, or used at Christmas as an overspill facility. This would be very unfavourable for the mobility impaired.

Option 7 – Encourage shoppers to use the Park and Ride
At present data from traffic counters at the Silk Mills site suggests that just over 20% of shoppers and short-stay visitors use the Park & Ride facility in Taunton. When the shortfall of shopper parking spaces occurs, more shoppers may consider using the Park & Ride facilities rather than attempt to find a parking space in the town centre. Tickets purchased between 10am and 4pm are cheaper for individuals and groups. An estimated 15% increase in Park and Ride use would see 200 more spaces being occupied across the two current sites. A further part of this option would be to allow group tickets to be purchased on Saturdays.

Option 8 – Provide temporary parking facilities
Figure 3.3 shows that during the years of 2014, 2015 and 2016, the number of town centre parking spaces for shoppers/short-stay visitors will be at the lowest following the closure of the Orchard Multi Storey and High Street car parks. These three years will have a maximum shortfall of approximately 500-680 spaces from the 2010 demand levels before the new Paul Street car park opens in 2017. This option only aims to mitigate the 3-year significant shortfall in provision and not any long term shortfall in parking provision. It would be necessary to work with the developer to phase parking facilities in and out to minimise the impact during construction.

Option 9 – Convert Canon Street to a Multi-Storey
The potential to convert the existing Canon Street surface car park into a multi-storey car park is identified in the Taunton Town Centre Area Action Plan (October 2006), produced by TDBC. This could provide an additional 300 parking spaces that could be allocated to shoppers and short-stay visitors. Canon Street

car park is located within 200m of the edge of the Primary Shopping Area. However there are a number of problems associated with this option: the car park is situated adjacent to a conservation area, the surrounding highway network is congested at peak times and the road geometry of Canon Street itself is relatively poor. Additionally, there is a significant cost associated with this option, which would need to be addressed.

4.2 Options to improve car park efficiency

Option A – Adjust Charging Scheme
The current scheme consists of three different tariffs – Shopper 1, Shopper 2 and Commuter. It is not clear what the difference is in these and operationally to users given the minimal price differences, it is unlikely to make a significant change in behaviour. This is especially true where the Orchard Multi Storey has 2 sets of shopper charges on different levels. It is possible that this car park could still retain a limited amount of Commuter parking at a premium rate. The charging tariffs could be realigned to simply a single shopper tariff and one for the commuter. Alternatively, the scheme could be redesigned to a short-stay tariff and a long stay tariff.

Option B – Implement Charges in the Evenings
The current charging tariff ends at 6pm. One option is to charge a flat tariff after this time for evening use. This is most likely to affect residents parking in public car parks and people accessing evening events and recreation in the town centre. Counts of current use are needed to determine existing demand.

Option C – Implement Charges on Sundays
The current tariff system does not charge for parking on Sundays. One option is to charge a flat tariff for Sunday use. This is most likely to affect people shopping on Sundays, as Sunday shopping has increased in recent years. Counts of current use are needed to determine existing demand.

Option D – Increase parking fees on long stay
The car parking within Taunton offers relatively low charges for long stay parkers. Current parking charges for the existing long term starting point (7 hours) are as follows:

Shopper 1	£7.60
Shopper 2	£5.90
Commuter	£5.10

Increasing charges on long stay (over 5 hours) in both commuter and shopper car parks would make it a less attractive option for long stay parking in the town centre. One issue that needs to be considered is that it should not be possible to buy two short stay tickets for a lower price than one long stay one. Additionally, maximum stays should be enforced to prevent long stays. Current government advice seeks not to increase costs on motorists so re-profiling of tariffs would be required, potentially supporting Option A.

Option E – Provide better information to users
Variable Message Signing on the entrance to the town centre that adjust as car parks fill up are useful tools to help the motorist find a car parking space more efficiently, although various studies have questioned their effectiveness over the

long- term[7]. Additionally, improved information via leaflets and the internet (e.g. height information, availability of disabled spaces and motorcycle parking) can be made available for users to make better choices before they arrive in the town centre.

Option F – Increase Motorcycle Spaces
As part of making Taunton a better environment to shop and live, allowing people to park motorcycles is important as these modes can help to reduce congestion. Provision in car parks for motorcyclists would fill an identified need[8]. More information is required on demand as current use is not known. .

Option G – Review Payment Methods
Taunton Deane Borough Council uses Pay and Display on arrival in all of its car parks as well as operating RingGo. Pay on Foot is a more popular option with users where motorists are issued a ticket and pay as they leave for the time that they used, but significant investment is required for implementation. It is suggested that as new car parks are constructed, such as Firepool and Paul Street, Pay on Foot is designed in. A phased programme of changes could be drawn up for the existing car parks where pay on foot could be viably implemented. Since the system relies on barriers, there may be car parks where this realistically may not be feasible due to the operational nature of the car park.

Option H – Environmental Improvements
Advances in alternative fuel technology have provided a viable market for electric vehicles. The Government has recognised the environmental benefits of this through its purchase subsidy. Running parallel with this is the provision of charging points. Taunton Deane Borough Council, in conjunction with Project Taunton and Somerset County Council, has installed two charging points at the Gateway Park & Ride site and will shortly have twp points in a central Taunton car park. It is suggested that further investment should be made to increase the number of charging points across the Borough as vehicle ownership grows.

4.3 Progressing Options
The next section looks at the options appraisal process to see which of the above options fit best with the aims of this Strategy, as outlined in Section 1.3.

[7] Smith, J. and Phillips, S. (1993) H5/9E:Evaluation of the Leeds Car Park guidance system TRL, Crowthorne. // IHT/I Struct E (1984) Design Recommendations for Multi-storey and Underground Car Parks (2nd Edition), IHT/ IStructE // Axhausen, K.W..; Polak, J. W.; Bolttze, M. and Puzicha, J. (1994) Effectiveness of the Parking Guidance Information system in Frankfurt au Main, Traffic Engineering and Control, May 1994, 304-309.
[8] Research for the emerging Somerset Motorcycling Strategy identified that lack of suitable places to secure their vehicles in public car parks is a significant issue for users.

5. Option Appraisal

Each option is appraised against the aims of the Strategy, outlined in Section 1.3. An assessment of the main issues is outlined.
Strongly supports aim ✓✓; Partly supports aim ✓; Neither supports nor conflicts with aim -; Conflicts with aim×; Strongly conflicts with aim ××

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
1	Restrict all commuter parking in the town centre	✓✓	✓✓	-	✓	✓✓	Should help reduce peak hour traffic in town centre; Encourage commuters to use Park and Ride; Opportunity for travel behaviour change; Should increase turnover of shoppers in car parks.	Would prove unpopular given the reduction in choice available to those wishing to park for longer periods in the town centre (even at a premium price); Initial changes are likely to cause confusion as people learn new habits; Unlikely to be popular with the business community as it requires changes of patterns of use; More information is needed to determine the exact impacts on traffic flows.

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
2	Restrict some car parks to short-stay only	✓✓	✓✓	-	✓	✓	Encourage commuters to use Park and Ride; Opportunity for travel behaviour change; Should increase turnover of shoppers in car parks.	Initial changes are likely to cause confusion as people learn new habits; Unlikely to be popular with the business community as it requires changes of patterns of use; More information is needed to determine the exact impacts on traffic flows.
3	Adjust Disabled Parking Length of Stay	✓	✓	-	×	×	Increased turnover of users; Enforcement through existing blue badge (clock system); Fairer system for all users, as opposed to those who arrive first.	Need to identify demand from commuters with a blue badge to ensure they are not put at a disadvantage; No current knowledge of use.
4	Retain Castle Street and Enfield	-	✓	-	✓	×	Both car parks within 400m of retail zone; Not identified as fundamental to plans by Project Taunton	Enfield is a commuter car park so not designated as short stay; Unlikely to be that effective without Option 2

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
5	Retain Coal Orchard	-	✓	-	✓	×	Within 200m of retail zone; Captures vehicles coming from the north before entering the town centre even after the Firepool development	Reduces availability of land for development; Capacity not fully utilised if Option 2 not implemented.
6	Encourage shoppers to use Firepool	×	✓	✓	✓	×	Captures vehicles from the north before they enter the town centre; Frees up short stay in the town centre; Puts less demand on sites needed for development and could affect the need for Options 4 and 5.	On the cusp of 400m from the retail zone; Distance may cause an inconvenience for shoppers; May not provide significant capacity due to proposed use; Without Option E, may increase vehicle trips around town.
7	Encourage shoppers to use Park and Ride	×	✓	✓✓	✓✓	✓✓	It is cheaper for groups or families due to the availability of group tickets; Less traffic in the town centre	Reliant on a strong marketing campaign; Makes the shopping experience less convenient.

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
8	Provide temporary parking facilities (likely to be Canon Street or the Crescent)	×	✓	×	×	×	Resolves phasing issues with High Street and Orchard Multi Storey; Could increase short stay spaces with or without Option 2.	Significant cost implication would need committed funding; Would need to take into account Conservation Area issues; Encourages more traffic into the town centre; Any beyond 400m from the retail zone are likely to be undesirable.
9	Convert Canon Street to a Multi-Storey	×	✓✓	××	×	××	Could increase short stay spaces with or without Option 2.	Significant cost implication would need committed funding; Would need to take into account Conservation Area issues; Encourages more traffic into the town centre.

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
A	Adjust Charging Scheme	✓	✓	-	×	✓	Easier for decision makers and users to understand; Make better use of the transport network by influencing behaviour; Best implemented in conjunction with other efficiency measures.	Little value implementing in isolation
B	Implement Charges in the Evenings	-	-	-	×	-	Increased revenue stream for TDBC.	Potential displacement of people using car parks for overnight (residential) purposes; Does not help increase supply for shoppers or reduce congestion since the shops are shut and congestion is less of an issue in the evenings; Discourages growth in the night-time economy; Needs more enforcement resource.

Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
C	Implement Charges on Sundays	-	-	-	×	-	Greater control of demand which has historically not been needed; Increased revenue stream for TDBC.	Would need more enforcement; Will produce objections from residents, retail sector, leisure economy and Sunday-specific activities; Potential detrimental effect on on-street situation as drivers look to avoid payment off-street; Need more information on whether it has a long term profit.
D	Increase parking fees on long stay	✓	✓✓	✓	✓	✓✓	Should deter some commuters; Frees up more spaces for short stay; Still allows long stay parking in retail zone at a premium. Could be more effective alongside other measures to increase shopper supply.	Current government advice seeks not to increase costs on motorists so re-profiling of tariffs would be required; Politically unpopular.

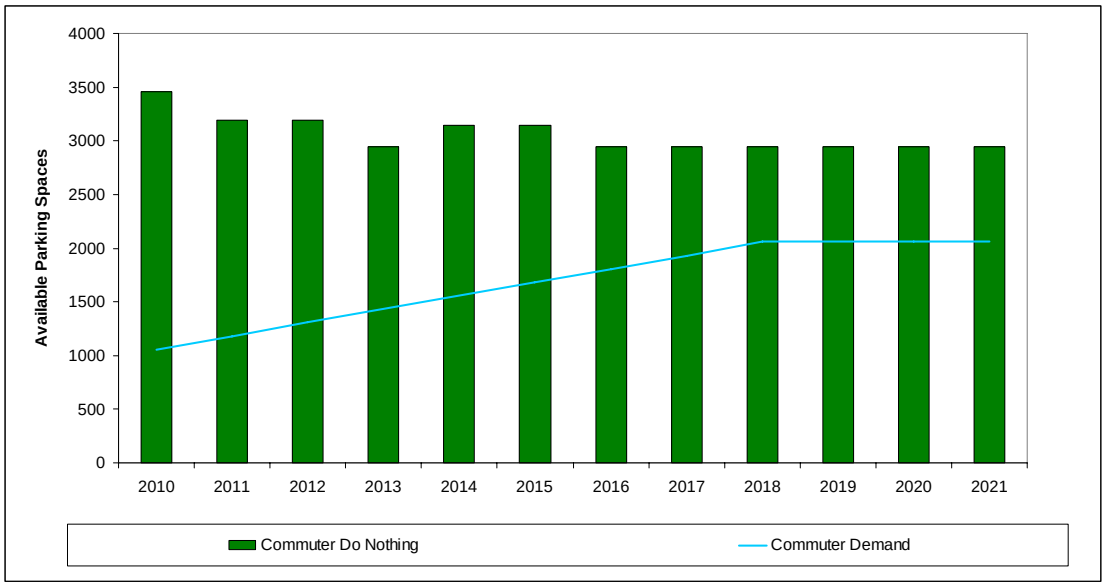
Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
E	Provide better information to users	-	-	✓	✓	✓✓	Reduce the number of vehicles going round the town; Better informed drivers with a potential to change behaviours; Best implemented in conjunction with other efficiency measures.	Siting important so drivers can make early decisions (prior to the Park and Ride sites); Implementation and funding likely to be via a third party (SCC); Most people will be local and may not wish to change behaviours; Little value implementing in isolation
F	Increase Motorcycle Spaces	-	✓	-	✓	✓	Would marginally improve traffic management and congestion by taking up less road space than cars; Would also improve the street scene by removing motorcycles parked where they are able to be secured.	May take up car parking spaces therefore reducing capacity and income.

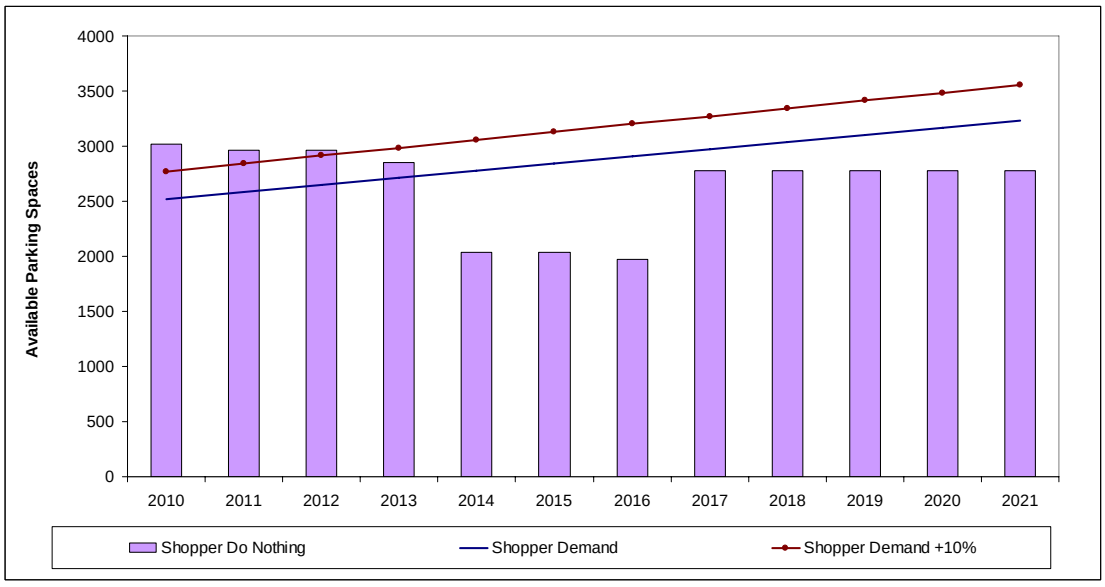
Option	Option Description	Reduce long stay in town centre	Increase supply for shoppers	Create better town centre environment	Reduce congestion	Make transport network more efficient	Pros	Cons
G	Review Payment Methods	-	-	✓	-	✓	Makes payment more efficient and often seen as cheaper and better value by users; Reduces the need for enforcement, with a potential for long-term revenue saving.	Costly to implement, requiring significant capital investment to change.
H	Environmental Improvements Electric vehicle charging points	-	-	✓			Reduces pollution throughout vehicle journey	Requires capital investment

Table 5.1 Assessment of Options

6. Packages to Address Shortfall

	Long Stay	Short Stay	Environment	Congestion	Traffic Management
Do Nothing	**x**	**x**	**x**	**x**	**x**
Description: No Options	Maintains the existing programme of regeneration without implementing any mitigation measures through parking.				
No Supporting Options	Likely to create a shortfall in shopper/short term parking in the medium to long term.				

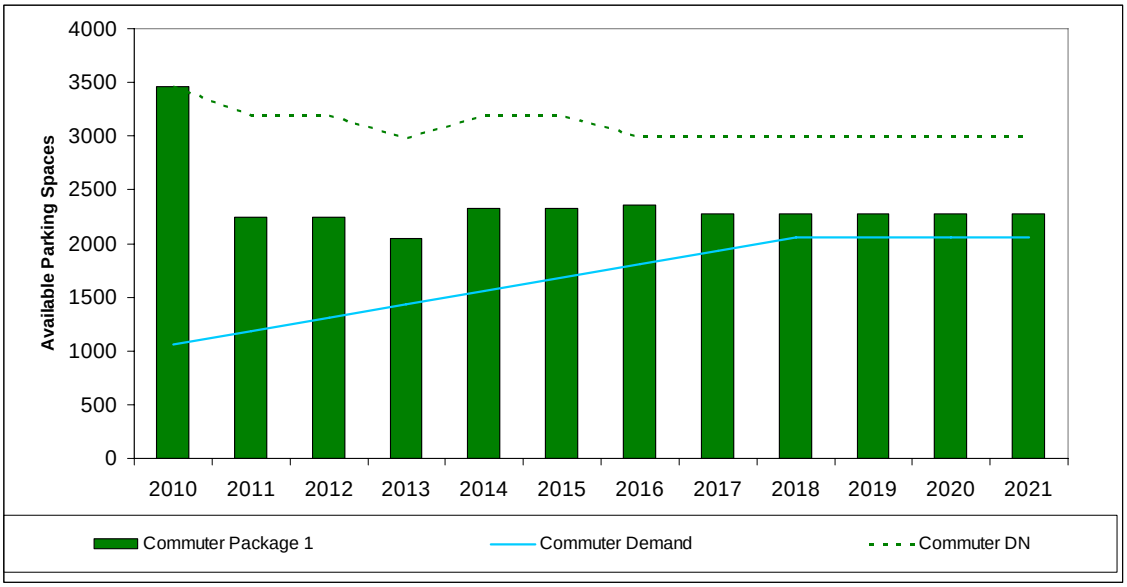


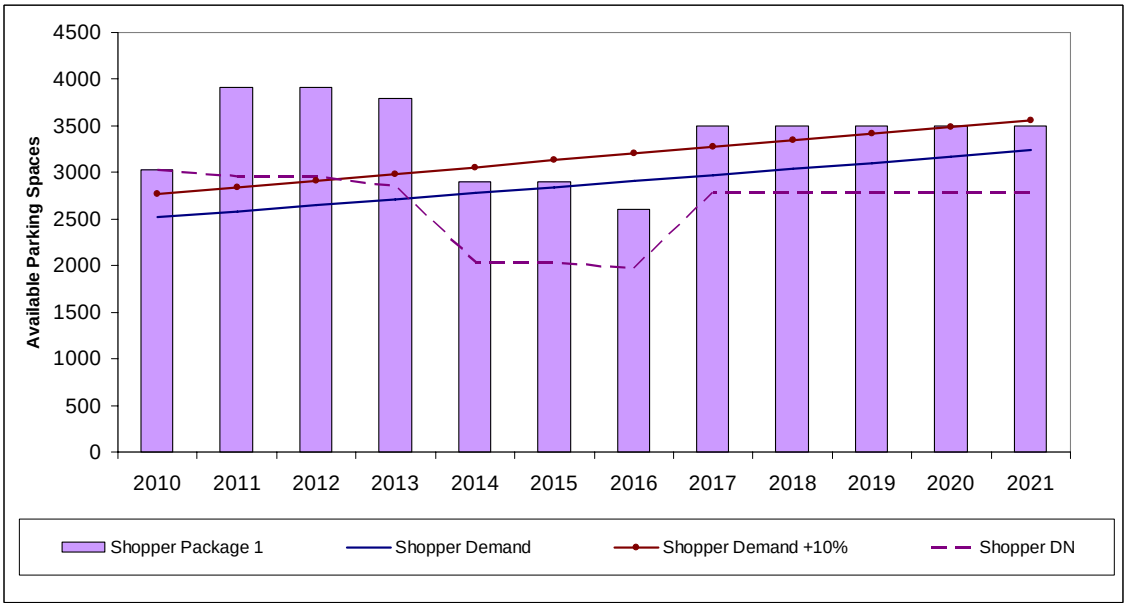


Figures 6.1 and 6.2 Do Nothing (DN) Approach against Demand for Commuter and Shopper.

As discussed in Section 3.2.

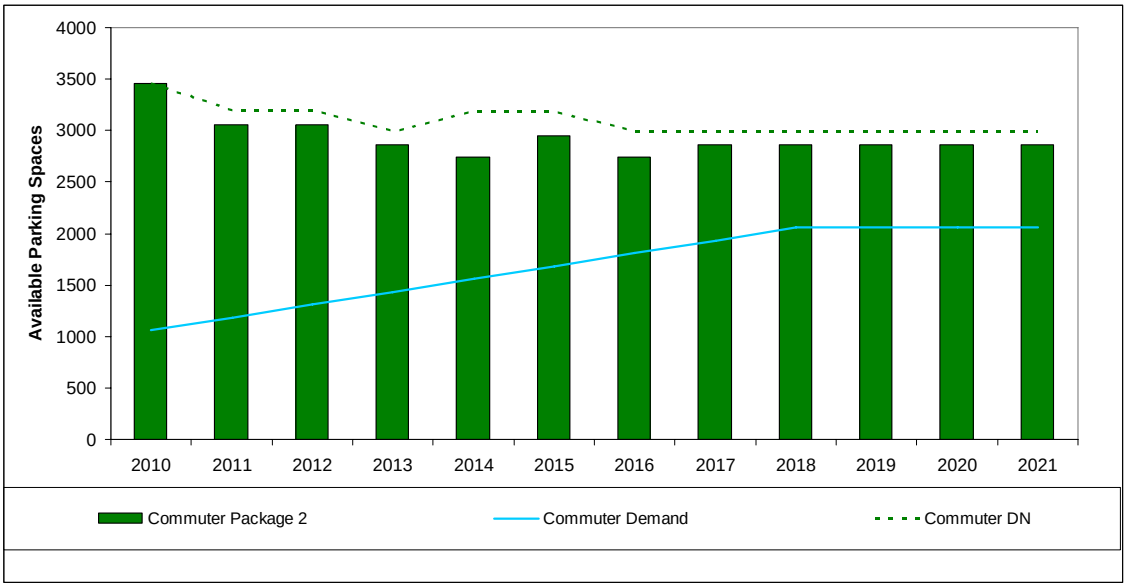
Package 1	✓✓	✓✓	-	✓	✓✓
Description: Option 1, 3	Look to designate all short stay spaces noted in Option 1 as well as improvements to information and payment methods.				
Supporting Options: A, D, E, G	Likely to create a shift in user behaviour in the short term as they adjust to the changes. Displaces commuters to the Park and Ride sites or privately owned sites in Taunton Town Centre. Work would need to be undertaken to assess the public acceptability of this option.				

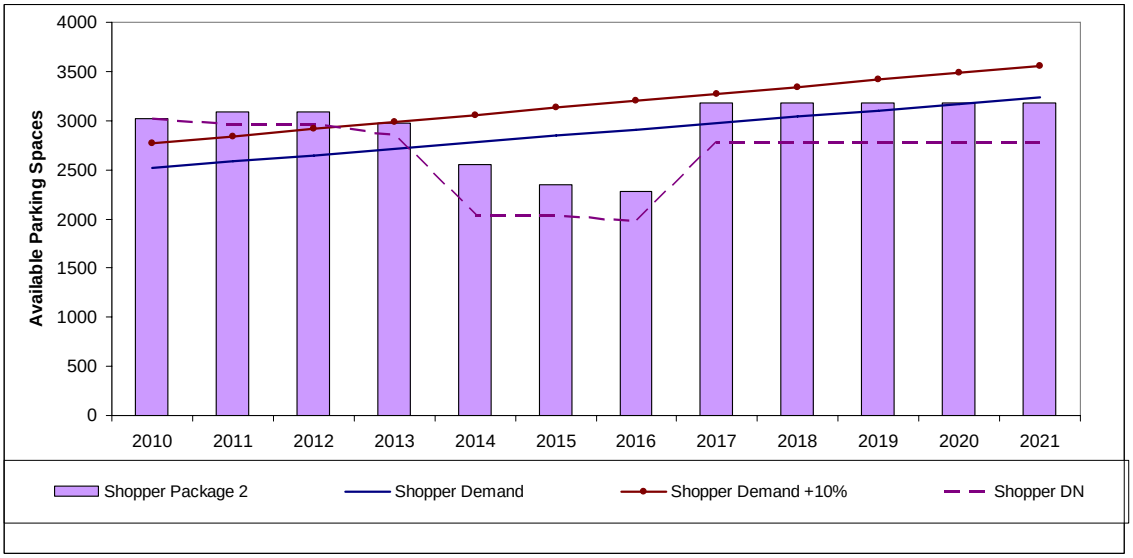




Figures 6.3 and 6.4 Package 1 compared against the Do Nothing (DN) (shown as dashed line) This Package provides an increase in parking supply for shoppers to the detriment of commuters and starts to create a behaviour change in users so that central car parks are only used by shoppers. Shopper demand is close to +10%, which is important in shopper car parks. Commuter parking is solely in Park and Ride sites or in private long stay in the town centre.

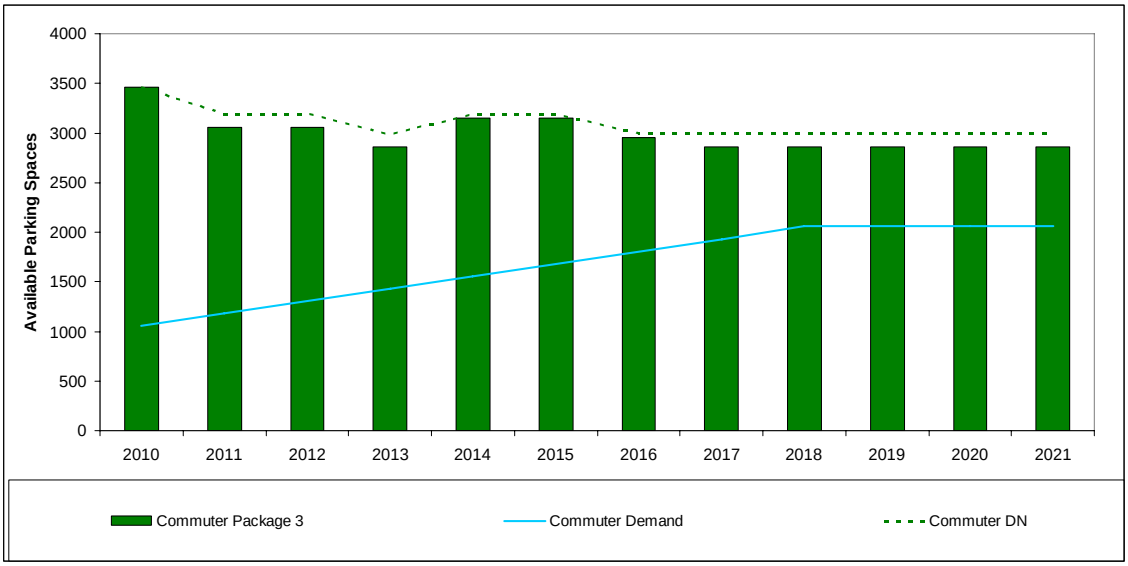
Package 2	✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Description: Option 2, 3, 4, 7	Using Option 2 (placing some restrictions on long stay use) as a basis plus enhanced changes to car parks (e.g. charging on Sundays), improved smarter choices measures e.g. enhanced promotion of the Park and Ride, particularly during 2014 and 2017.				
Supporting Options: A, C, D, E, F, G	Greater short stay provision than the Do Nothing option and with information elements, users should be able to get to sites more easily. Uses some space identified for Project Taunton regeneration (Enfield and Castle Street) although these have not been identified as crucial to success of the development. Shortfall between 2014 and 2017 mitigated by increased promotion of Park and Ride to shoppers during this timescale.				

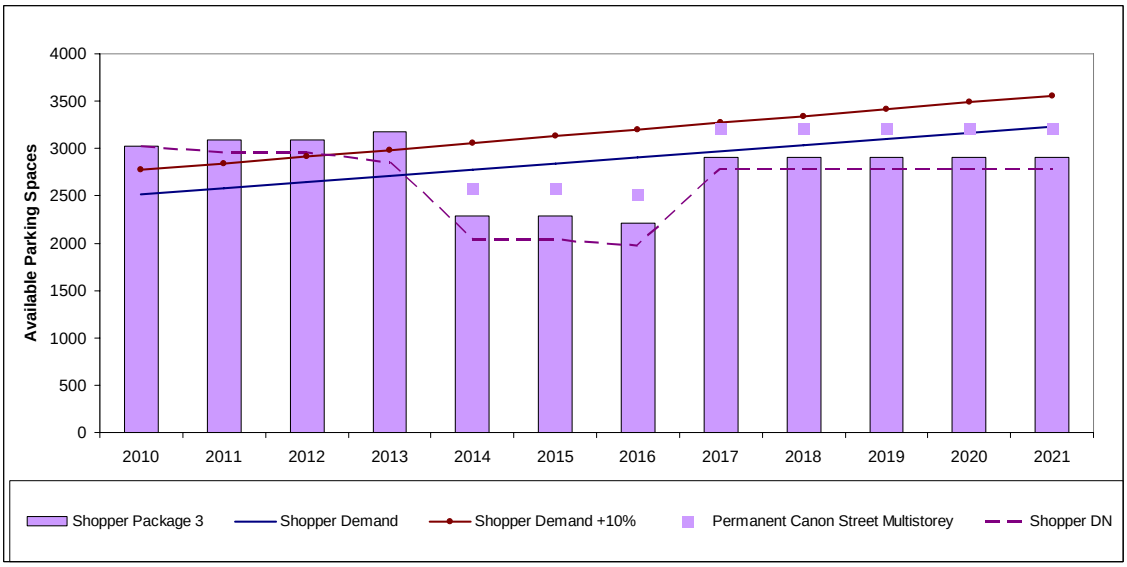




Figures 6.5 and Figure 6.6 Package 2 Assuming a 15% shopper switch to Park and Ride compared against the Do Nothing (DN) (shown as dashed line)
There is an increase in shopper spaces between 2014-1016 which creates a decrease in commuter spaces. Commuter supply is still greater than demand. By 2021, Shopper Demand is nearly achieved.

Package 3	✓✓	✓✓✓	✓	✓	✓
Description: Option 2, 3, 6, 8, 9	Using Option 2 (placing some restrictions on long stay use) as a basis plus enhanced changes to car parks (e.g. charging on Sundays) and provision of multi-storey temporary deck on either Canon Street or Crescent car park between 2014 and 2017.				
Supporting Options: A, B, C, D, E, F, G	Slightly more provision of parking but still not sufficient to achieve the levels of demand between 2014 and 2017. A feasibility study would be required to identify where a temporary multi-storey car park could realistically developed, along with likely costs. The additional trips to the town centre generated by this Package will have a negative impact on the environment, congestion and traffic management. Adding in Option 9 significantly increase vehicle trips and would impact on the town centre. Options 8 and 9 would require traffic modelling and testing.				





Figures 6.7 and 6.8 Package 3 Compared against the Do Nothing (DN) (shown as dashed line)

This Package increases shopper supply and retains commuter supply. Providing a permanent deck on Canon Street and a temporary deck at the Crescent increases supply to the equivalent of Package 2.

7. Conclusion

7.1 Discussion around the Packages

The data shows there is over-provision of commuter parking across all packages and time periods, which is an inefficient use of parking stock. It has been assumed that the extension to Silk Mills Park and Ride will be delivered during the lifetime of the strategy. Additionally these figures do not factor in the following which will also reduce the demand required in public car parks:

- new employment development within the town centre will have some private provision. This is the case for Firepool and also possible for other employment site is; and
- this strategy does not take into account the impact of progress made on travel plans over the same timescale. This should help to reduce the demand on public commuter spaces.

Figures 6.1 to 6.8 show the different Packages of options available to meet shopper demand. As shown, Package 1 is the best performer, balancing the parking stock efficiently. However, implementing such a scheme would be complex to implement and would be unpopular with non-retail businesses in particular. In many ways this could be seen as representing the theoretical 'best' solution, however in reality it may well be considered preferable to continue to retain a degree of flexibility in order to minimise any negative impacts on the view of Taunton as a place to do business. While catering for retail/tourist demand is important, this should not be at the expense of undermining Taunton's reputation as a business and economic centre given the employment-led focus on strategic growth.

Packages 2 and 3 meet the long term demand through alternative ways, although it should be noted that neither fully meets the likely shopper demand in 2014 to 2017. As can be seen between 2014 and 2016, there is a dip in shopper spaces but is an oversupply of commuter spaces. Package 2 could provide a low-cost alternative to any multi-storey options in Package 3 by providing and promoting cheap bus travel to and from the existing park-and-ride sites, as well as any new facilities at Monkton Heathfield and Chelston in Wellington. With sound marketing, this option could resolve the short-term issue of insufficient parking in the town centre shoppers

Further work is required to enable more detailed assessment, including:

- survey/interviews of car park use;
- public acceptability of restricting commuters to the town centre;
- modelled assessment of the impact of smarter choices/travel planning work;
- cost of providing and delivering multi-storey car park on the Crescent and on Canon Street;
- feasibility of increased promotion of the park and ride sites to shoppers; ~~and~~
- current disabled use; and
- variable message signing.

7.2. Recommendations

It is recommended that TDBC pursue elements of Package 2 in the short term (1-2 years) to achieve ‘quick wins’. This will include:

- Restrict some car parks to short-stay only;
- Adjust Disabled Parking Length of Stay; and
- Efficiency Options:
  - Adjust Charging Scheme;
  - Increase parking fees on long stay;
  - Provide better information to users; and
  - Review Payment Methods.

The feasibility of fully implementing Package 2 and Package 3 would need to be explored further as there are unknown elements to both. In terms of achieving the strategy objectives, Package 3 offers a better alignment and it is recommended that this should be pursued as the favourable Package. This includes:

- Retain Castle Street and Enfield
- Encourage shoppers to use Park and Ride; and
- Efficiency Options:
  - Implement Charges on Sundays; and
  - Increase Motorcycle Spaces.

Package 2 would also align well with the Somerset Future Transport Plan 2011-2026 (FTP) and the Bridgwater, Taunton and Wellington Future Transport Strategy (formerly TTSR2) 2011-2026, which supports the reduction in congestion and the improvement in traffic management. Package 3 does not align as well with these transport strategies because it is likely to attract more vehicles to the town centre, which will increase congestion and be contrary to traffic management initiatives.

Option H can be taken forward independently or as part of either package.

8. References and Data Sources

8.1 References

Axhausen, K.W..; Polak, J. W.; Bolttze, M. and Puzicha, J. (1994) Effectiveness of the Parking Guidance Information system in Frankfurt au Main, Traffic Engineering and Control, May 1994, 304-309.

Institute of Highways and Transport /I Struct E (1984) Design Recommendations for Multi-storey and Underground Car Parks (2nd Edition), Institute of Highways and Transport / IStructE

Institute of Highways and Transport (2005) Parking Strategies and Management

Parsons Brinckerhoff (2007) Taunton Parking Strategy Review

RingGo - www.ringgo.co.uk

Smith, J. and Phillips, S. (1993) H5/9E:Evaluation of the Leeds Car Park guidance system TRL, Crowthorne.

Somerset County Council (2011) Somerset Future Transport Plan 2011-2026

Taunton Deane Borough Council (2006) Taunton Town Centre Area Action Plan

Taunton Deane Borough Council (2011) Taunton Deane Core Strategy 2008-2028 (2011)

WalkIT – www.walkit.com

WS Atkins (2006) Taunton Parking Study: Development Review

8.2 Data Sources

Ticket pricing – Taunton Deane Borough Council

Car Park Bay Audit Data - Taunton Deane Borough Council

Parking ticket transactions - Taunton Deane Borough Council

Park and Ride Car Park and Ticket Sales - Somerset County Council

Silk Mills and Gateway Park and Ride Automatic Traffic Counter data - Somerset County Council

In and Out Car Park Survey Data - Somerset County Council

Appendix A – Percentage of tickets sold during 2010/11

	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	7+ hours	**Total**
April	28.7%	29.3%	18.2%	9.7%	2.2%	2.2%	2.9%	6.9%	100.0%
May	29.3%	26.0%	18.3%	9.9%	2.4%	2.5%	3.3%	8.2%	100.0%
June	28.4%	29.4%	18.0%	9.7%	2.3%	2.2%	3.0%	7.1%	100.0%
July	28.6%	28.8%	18.1%	9.5%	2.3%	2.3%	2.9%	7.4%	100.0%
August	27.2%	29.8%	18.9%	9.9%	2.2%	2.2%	2.7%	7.1%	100.0%
September	28.0%	28.6%	17.7%	9.6%	2.3%	2.5%	3.3%	7.9%	100.0%
October	28.4%	29.5%	18.4%	10.1%	2.1%	2.0%	3.0%	6.4%	100.0%
November	26.7%	28.1%	19.4%	11.3%	2.5%	2.2%	3.1%	6.7%	100.0%
December	22.9%	29.5%	22.1%	13.0%	2.5%	1.9%	2.2%	5.8%	100.0%
January	28.5%	30.3%	18.3%	9.6%	2.0%	1.7%	2.8%	6.6%	100.0%
February	28.8%	29.4%	17.9%	10.0%	2.1%	1.9%	3.2%	6.7%	100.0%
March	28.7%	28.8%	18.2%	9.8%	2.3%	2.1%	3.3%	6.8%	100.0%
Total	27.8%	29.0%	18.7%	10.2%	2.3%	2.2%	3.0%	7.0%	100.0%

Percentage of tickets sold for each time period during the day in all car parks during 2010/11 (from Ticket Sales, 2010/11)

Appendix B – Calculation of current Pay and Display car park demand

Car Park	Maximum occupancy at any one time	Number of Spaces	Ratio of Demand to Supply	Used in Capacity Calculations
Belvedere (S)	186	110	169%	No
Canon Street (S)	317	288	110%	Yes
Castle Street (S)	168	70	240%	No
Coal Orchard (S)	85	110	77%	Yes
Crescent (S)	249	226	110%	No
Duke Street (S)	46	58	79%	Yes
Elms Parade (S)	25	27	93%	Yes
High Street (S)	204	257	79%	Yes
Kilkenny (C)	118	259	46%	Yes
Orchard Multi Storey (S)	339	553	61%	Yes
Priory Bridge Road (C)	85	464	18%	Yes
Tangier (C)	177	427	41%	Yes
Victoria Gate (C)	41	73	56%	Yes
Wood Street (S)	148	196	76%	Yes

	Sum of Max Demand	Sum of Supply	Ratio of Supply and Demand
Shopper Max	1481	1777	83%
Commuter Max	421	1223	34%

Calculation of Capacity in Taunton Car Parks (from In and Out data, October 2010)

Appendix C – Percentage of Length of Stay in Pay and Display Car Parks

Within 200m	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	Total 7+ hours	Total 5+ hours
Canon Street (S)	35%	28%	16%	8%	3%	2%	1%	6%	9%
Coal Orchard (S)	54%	23%	13%	4%	2%	1%	0%	3%	4%
Crescent (S)	45%	27%	12%	5%	3%	2%	1%	4%	7%
Duke Street (S)	47%	22%	14%	3%	3%	2%	1%	8%	11%
High Street (S)	30%	32%	18%	7%	2%	2%	2%	6%	11%
Orchard Multi Storey (S)	23%	32%	21%	9%	4%	2%	2%	7%	11%
Wood Street (S)	38%	23%	15%	10%	5%	1%	1%	6%	8%

Between 200m and 400m	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	Total 7+ hours	Total 5+ hours
Belvedere (S)	25%	21%	12%	4%	8%	3%	3%	24%	30%
Castle Street (S)	17%	15%	12%	7%	7%	7%	8%	26%	42%
Elms Parade (S)	71%	13%	3%	5%	2%	0%	3%	2%	6%
Priory Bridge Road (C)	34%	16%	22%	16%	3%	2%	1%	6%	8%
Tangier (C)	23%	17%	9%	6%	6%	4%	5%	30%	40%

Beyond 400m	1 hour	2 hours	3 hours	4 hours	5 hours	6 hours	7 hours	Total 7+ hours	Total 5+ hours
Kilkenny (C)	22%	8%	3%	3%	2%	4%	7%	51%	62%
Victoria Gate (C)	58%	10%	7%	4%	2%	3%	3%	13%	19%

Length of Stay in Car Parks (from In and Out data, October 2010)