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Parking Study

Aldershot Town Centre,

for

Rushmoor Borough Council

A19106C

Parking Study, Aldershot Town Centre,

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Should you have any queries relating to this document please contact: James Bailey

- Patrick Parsons Limited Satelliet House 2 Nexus Park Lysons Avenue Ash Vale GU12 5QE
- T: +44 (0) 1276 700 400
- E: james.bailey@patrickparsons.co.uk





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1.0 Introduction & background

Background and brief

- 1.1 Patrick Parsons has been commissioned by Rushmoor Borough Council (RBC) to undertake a detailed Parking Study within Aldershot Town Centre. A similar study was carried out in 2013/14, which included the town centre, residential permit holders zone to the south and further roads to the south which are currently unrestricted. A follow up study was also undertaken in 2017, which just focused on the town centre area.
- 1.2 The main purpose of this study is to determine the current state of the parking situation in Aldershot town centre and look at the likely future demand, given future regeneration in Aldershot and emerging sustainable transport options. Within the original brief, it states that the Council would like to understand:
 - Whether there have been any changes to how current off-street and on-street car parking in and around Aldershot town centre is utilised, since the last study was carried out in 2017;
 - How supply and demand is likely to change in the future, given planned regeneration and other development, the increasing use of sustainable alternative transport modes including new technologies, bus and train services and changes in car ownership and use.
- 1.3 In order to achieve this outcome, a series of comprehensive and detailed on- and off-street parking surveys were undertaken. A study area was specified by RBC and was very similar to the town centre (green) area included as part of the 2013/14 and 2017 surveys. A study area plan is included within **Appendix A**.

Current and future state of Aldershot town centre

- 1.4 Aldershot has a strong identity as a Military town and is often referred to as the 'home of the British Army'. The Garrison to the north of Aldershot comprises around 11,500 people, including resident troops, soldiers in transit on courses, civil servants, contractors and dependents. The total population of Aldershot is around 36,321.
- 1.5 Currently, the town centre suffers from an over-supply of retail floorspace and relatively high shop vacancy rates. Many large chains, such as M&S and Woolworths and the whole of The Galleries shopping centre, which adjoins the Wellington Centre have closed down in recent years. It might be argued that much of this is due to the economic downturn and the rise of internet shopping.

- 1.6 Aldershot is very well served by public transport, with a mainline railway station towards the south-eastern side of the town centre. The railway station provides twice hourly services to London Waterloo, Alton, Guildford, Ascot and Farnham. There are also many bus services providing multiple buses to surrounding towns including Farnborough, Camberley, Fleet, Farnham and Guildford.
- 1.7 In terms of the surrounding road network, the A323 runs just to the north of the town centre and links the A325 to the west and A331 to the east. The A325 links Aldershot to Farnborough and Farnham, whilst the A331 provides a fast link to the M3 motorway to the north and Guildford, via the A31, to the south.
- 1.8 The Council has an ambitious regeneration programme, which seeks to create a mixed-use town centre with high quality housing, retail, leisure and employment uses. The key regeneration sites include The Galleries, Union Street East, Aldershot Railway Station and refurbishment of Princes Hall. The recently adopted (February 2019) Local Plan supports the regeneration of the town centre and outlying areas, by seeking to rebalance the oversupply in retail with the redevelopment of a number of key sites, including the Wellesley development to the north of Aldershot, comprising up to 3,850 new homes.

Format of the report and limitations

- 1.9 There are a further nine sections to this report. Section 2 sets out the methodology used during the parking study, including the data collection and analysis. In Section 3 we present the results of the parking surveys and analyse the results of the surveys carried out for the car parks and on-street parking areas. In Section 4 we compare the 2019 survey results to the 2014 and 2017 surveys. Section 5 considers future parking demand. Section 6 investigates good practice case studies used for other towns and cities in the UK and Europe. Section 7 looks at off-street parking initiatives which could be applied to Aldershot, whereas Section 8 looks at on-street initiatives. Section 9 looks at potential sustainable transport initiatives which could be used to ease parking congestion and in Section 10 we conclude the report.
- 1.10 The general limitations of this assessment are that:
 - A number of data sources have been used in compiling this report. Whilst Patrick Parsons (PP) believe them to be trustworthy; it is unable to guarantee the accuracy of the information that has been provided by others.
 - This report is based on information available at the time of preparation. There is potential for further information to become available, which may create a need to modify conclusions drawn in this report.



2.0 Methodology

The Study Area

- 2.1 The study area is shown in **Appendix A**, as outlined in green.
- 2.2 The study area was agreed with Rushmoor Borough Council and was adapted from the town centre area included as part of the 2013/14 and 2017 surveys.
- 2.3 Parking on-street within the study area is mainly pay & display, although there are some parking bays for permit holders, taxis only, disabled users only and loading only.
- 2.4 In addition to the on-street surveys, we were instructed to survey the Council run and commercial car parks within the town centre. **Table 2.1** below provides a summary of the car parks surveyed, including the number of spaces.

Car Park Name	Туре	No. of	No. spaces
		entrances and	
		exits	
Princes Gardens	Short stay	2	71 (incl. 4 disabled)
High St Multi-storey	Short and long stay	1	326 (incl. 11 disabled)
Cross Street	Short stay	1	7 (incl. 2 disabled)
Co-op car park	Short stay	1	71 (incl. 3 disabled)
Birchett Road	Short stay	1	76 (incl. 3 disabled)
Princes Hall	Short stay	2	43 (incl. 2 disabled)
Westgate	Short stay	1	518 (incl. 30 disabled)
Wellington Centre	Short stay	1	450 (incl. 15 disabled)
Parsons Barracks	Long stay	1	167 (incl. 6 disabled)
Aldershot Railway Station	Short and long stay	2	238 (incl.4 disabled)

Table 2.1 – summary of Council run car parks

Survey of existing restrictions & parking places

2.5 An "existing site features" survey was undertaken in 2013, the restrictions were checked onsite in March 2017 and again in June 2019. The original survey was undertaken with the use of a measuring wheel and tape on site. The features picked up included; dropped kerbs / driveways, existing waiting restrictions and parking places, prohibition of waiting and loading, bus stop clearways, school keep clear markings etc. These features were then drawn up on AutoCAD in a presentable format. A plan showing the 'Existing Waiting Restrictions and Parking Places is included within **Appendix A**.

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2.6 All spaces and lengths of road on which parking could take place were then counted. The lengths of parking places were broken down by restriction type and road, and presented in tabular form. Where individual bays were not designated, the number of available spaces was calculated by dividing the length of each bay and line of parking spaces by 5.5m. Whilst Manual for Streets (MfS) specifies a 6.0m parking bay, this is for an individual parallel bay; 5.5m is a length in which one car can park in a long line of cars and is standard practice. In any case, this was actually borne out in the surveys for this site. The list of roads surveyed and the lengths of restriction / number of bays can be found in **Appendix B**.

Data Collection

- 2.7 Full duration and classification surveys were undertaken using the survey company Streetwise Services Ltd. On-street vehicle hourly parking beat surveys were undertaken on Tuesday 11th June and Saturday 15th June 2019. Parking surveys were also undertaken for the ten car parks on these two days using digital cameras to log the number of vehicles entering and exiting the car parks. Before these survey days were fixed, consultation took place with relevant parties to ensure that no roadwork's or special events were taking place that would affect parking patterns.
- 2.8 The aim of the surveys was to log the demand and duration of stay of parked vehicles and whether they were parked in disabled bays, parallel bays or unclassified bays. The parking beat surveys involved the enumerators walking along each of the roads at hourly intervals, recording the vehicle registration plates and where they were parked.
- 2.9 The on-street parking surveys were carried out from 6am to 8pm. Each 'beat' lasted for no longer than 1 hour.
- 2.10 The registration plates were recorded using tablets on-site. It should be noted that each 'beat' provides a "snapshot" of the existing parking situation along each road at that particular time of day. Naturally, the parking situation would vary between the hourly beats, during the 'inter-peak'. This is to be expected and is unavoidable with parking beat surveys. Parking on double yellow lines and goods vehicles loading activity, for example, was picked up during each beat as the enumerator passed through. In order to track this activity with detail, enumerators would have had to be stood at regular intervals along each road, permanently throughout the day.
- 2.11 For the ten car parks in the town centre, surveys were undertaken between 8am and 8pm on the Tuesday and the Saturday. The surveys involved one complete count of the number of cars parked in each car park just before 8am. Digital cameras were then erected at the entrances and exits to all car parks, to record the number of vehicles coming and going. The survey company broke this data down into 15 minute intervals. However, we have presented the data in hourly intervals and prepared 'parking accumulation' bar charts for each car park.



Data Analysis

- 2.12 The car park survey data was analysed first and a summary of the results is presented in the next section of the report. As explained previously, the survey data was provided by the survey company in 15 minute intervals, but we have modified the data and presented it in hourly intervals. Parking accumulation bar charts have been prepared for each car park on the Tuesday and Saturday survey days.
- 2.13 The parking accumulation charts were produced by adding and subtracting those vehicles who entered and exited the car park over the past hour, from the previous hours count of spaces occupied. The number of free spaces available at each hourly interval could then be determined by subtracting the number of spaces occupied from the total capacity of the car park. The results of this analysis would then help us to determine which car parks are at, or over capacity and which are well under capacity. The analysis of the car park survey results can be found in **Section 3.0**.
- 2.14 In terms of the on-street parking analysis, in order to show whether a road was 'under-utilised' or at capacity, we have prepared bar charts to show the number of spaces occupied and free spaces at each hourly interval. This meant using the 'site features survey' to determine how many useable spaces there are along each road or section of road and subtracting the number of vehicles surveyed along this section of road at each hourly interval.
- 2.15 We have presented the duration of stay of vehicles parked in each road. The registration number of each car was noted during the surveys and it was recorded how many times they were identified on each successive parking beat. If they were only noted once, then they were recorded as having parked for between 0-1 hours, whereas if they were noted twice then they were recorded as having parked for between 1-2 hours and so on.
- 2.16 As part of the previous surveys undertaken in 2013/14, we made assumptions about which parked cars belonged to residents, commuters and short stay visitors. We have made similar assumptions here. Each user-type was classified in the following way:
 - **Residents** were assumed to be those who were parked during the first survey 'beat' (06:00 07:00). Most of these vehicles either stayed for most of the day or went away and returned at a later time. Those who came and went at various points throughout the day were also classified as residents.
 - Commuters / long stay visitors were assumed to be those who arrived after the first survey beat and were picked up during five or more consecutive 'beats'. So for example, for a vehicle which was recorded during the 08:00 to 09:00 beat to be classified as commuter, they would have to stay until at least the 12:00 to 13:00 'beat', without leaving in between.
 - Short stay visitors were assumed to be those who appeared for just one single or consecutive period during the survey day, up to four times. So for example, for a vehicle which was first recorded during the 08:00 to 09:00 beat to be classified as a



short stay visitor, they could stay up to the 11:00 to 12:00 beat, but no later and not picked up again during that survey day.

- 2.17 The duration of stay pie charts, proportion of users and capacity bar charts have been presented together on Ordinance Survey plans, for easy reference to each road and its proximity to the town centre and railway station. These are included within **Appendix C** and analysed in **Section 3.0**.
- 2.18 The use of disabled bays has been assessed and is analysed in **Section 3.0**. For the disabled bays in each road we subtracted the number of cars parked in disabled bays in each road, at each hourly interval, from the number of disabled bays surveyed for each road. This allowed us to establish whether the demand for disabled bays was greater than the supply and, hence, whether more designated bays are required.
- 2.19 Cycling activity has also been assessed. In order to establish the cycling requirements for each car park, we have subtracted the number of bicycles parked in each car park, at each hourly interval, from the number of cycle parking bays surveyed for each car park.
- 2.20 It should be pointed out again that, for the assessments of the disabled bays and cycle stands, as outlined above, the tables presented in **Section 3.0** provide just a snapshot in time, when the beat was undertaken.

3.0 Summary of survey results

- 3.1 This section of the report summarises and presents the parking survey results. The results of the parking surveys have been analysed as set out in **Section 2.0** of this report. The car park survey results have been analysed first, followed by the on-street survey results.
- 3.2 The analysis of the on-street survey results has been divided into two sections. Firstly, we deal with the volume / capacity and the duration of stay for each road. Secondly, we deal with the use of disabled bays.

Analysis of Car Park Survey Results

3.3 **Table 2.1** shows the number of spaces for each car park. The number of spaces for each car park was used during the analysis, along with the survey data and the following bar charts illustrate the level of occupation of the car parks at hourly intervals during the Tuesday and Saturday survey days. The blue bars represent the number of cars parked in the car park, whilst the red bars represent the number of free spaces. Where the car park is over-capacity the red bars are shown below the blue bars and represent the deficit in spaces.

Car Parks	Туре	No. of	No. of spaces
		entrances and	
		exits	
Princes Hall	Short stay	2	43 (incl. 2 disabled)
Princes Gardens	Short stay	2	71 (incl. 4 disabled)
High Street Multi Storey	Short and long stay	1	326 (incl. 11 disabled)
Со-Ор	Short stay	1	71 (incl. 3 disabled)
Wellington Centre	Short stay	1	450 (incl. 15 disabled)
Cross Street	Short stay	1	7 (incl. 2 disabled)
Birchett Road	Short Stay	1	75 (incl. 3 disabled)
Westgate	Short Stay	1	505 (incl. 30 disabled)
Aldershot Station	Short and long stay	2	210 (incl. 4 disabled)
Parsons Barracks	Long stay	1	167 (incl. 6 disabled)

Table 2.1 – Summary of car parks surveyed

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Princes Gardens Car Park Results

3.4 Princes Gardens car park has 71 spaces, including 4 disabled spaces. As can be seen from **Figure 3.1** below, the maximum occupancy on Tuesday was at 8pm (96%) i.e. there was approximately 4% spare capacity. As can be seen from **Figure 3.2**, the maximum occupancy on Saturday was at 2pm (89%), i.e. there was approximately 11% spare capacity. The occupancy of the car park on both days increased during the midday, reduced towards the evening and increased in the evening.

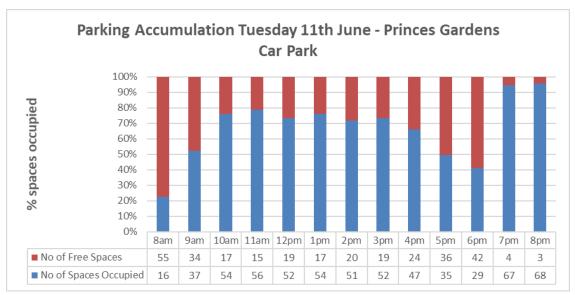


Figure 3.1: Number of Parked Cars in Princes Gardens Car Park on Tuesday 11th June

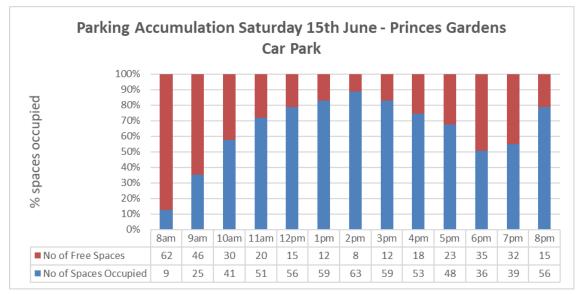


Figure 3.2: Number of Parked Cars in Princes Gardens Car Park on Saturday 15th June



High Street Multi Storey Car Park Results

3.5 The Multi-Story car park has 326 spaces, including 11 disabled spaces. As can be seen from **Figure 3.3** below, the maximum occupancy on Tuesday was at 8pm (52%) i.e. there was approximately 48% spare capacity. As can be seen from **Figure 3.4**, the maximum occupancy on Saturday was also at 8pm (57%) i.e. there was approximately 43% spare capacity. The occupancy of the car park on both days increased as the day went on, except for a dip at 6pm.

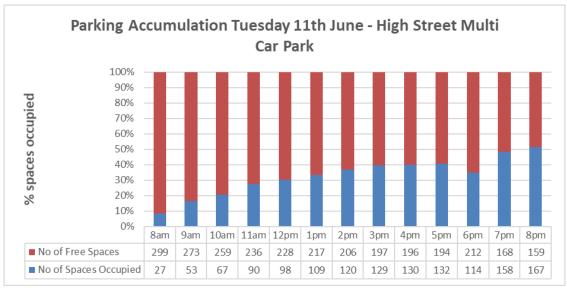


Figure 3.3: Number of Parked Cars in Multi Storey Car Park on Tuesday 11th June

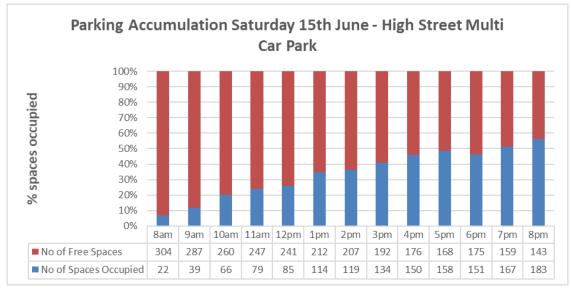


Figure 3.4: Number of Parked Cars in Multi Storey Car Park on Saturday 15th June

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Cross Street Car Park Results

3.6 Cross Street car park has 7 spaces, including 2 disabled spaces. As can be seen from **Figure 3.5** below, the maximum occupancy on Tuesday reached the maximum capacity of the car park at 11am, 1pm and 4pm and fluctuated between 58-85% occupancy throughout the day. As can be seen in **Figure 3.6**, on Saturday the car park was at full capacity all day. Between 9am to 7pm the maximum occupancy exceeded the capacity of the car park, at times by 2 cars. The one to two car deficit was likely due to the cars parking in an undesignated space, rather than circulating, as the car park is small in size and capacity.

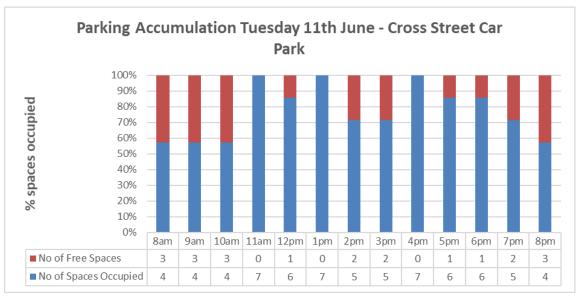


Figure 3.5: Number of Parked Cars in Cross Street Car Park on Tuesday 11th June

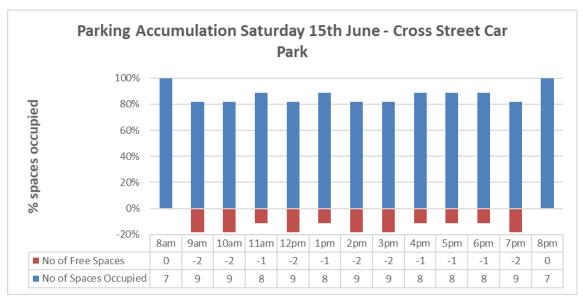


Figure 3.6: Number of Parked Cars in Cross Street Car Park on Saturday 15th June

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Co-Op Car Park Results

3.7 The Co-Op car park has 71 spaces, including 3 disabled spaces. As can be seen from Figure 3.7 below, the maximum occupancy on Tuesday was at 2pm (56%) i.e. there was approximately 44% spare capacity. As can be seen from Figure 3.8, the maximum occupancy on Saturday exceeded the capacity of the car park at 2pm, by 3 vehicles, and at 3pm by 1 vehicle. This deficit in spaces shows that up to 3 vehicles were either circulating the car park looking for a space, or parked / waiting in undesignated spaces. The car park was significantly busier on the Saturday compared to the Tuesday.

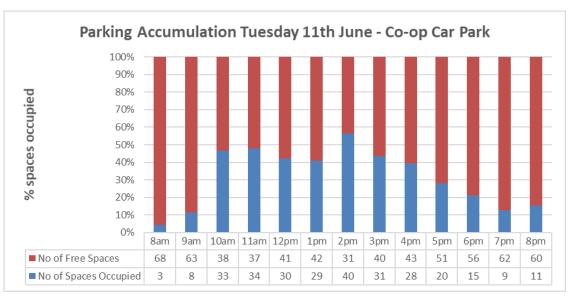


Figure 3.7: Number of Parked Cars in Co-Op Car Park on Tuesday 11th June

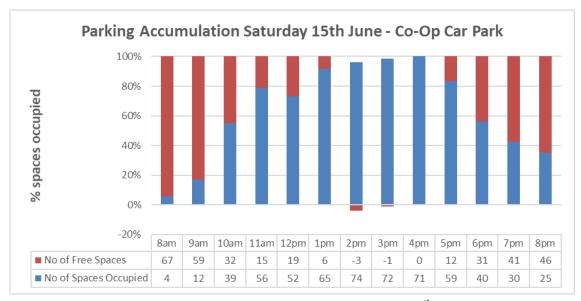


Figure 3.8: Number of Parked Cars in Co-Op Car Park on Saturday 15th June

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Birchett Road Car Park Results

3.8 Birchett Road car park has 75 spaces, including 3 disabled spaces. As can be seen from Figure 3.9 below, the maximum occupancy on Tuesday was at 12pm (71%) i.e. there was approximately 29% spare capacity. As can be seen from Figure 3.10, the maximum occupancy on Saturday was at 1pm (91%) i.e. there was approximately 9% spare capacity. The car park peaked at around noon, occupancy decreased in the afternoon and plateaued in the evening.

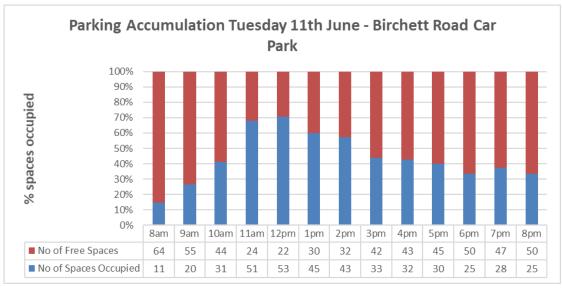


Figure 3.9: Number of Parked Cars in Birchett Road on Tuesday 11th June

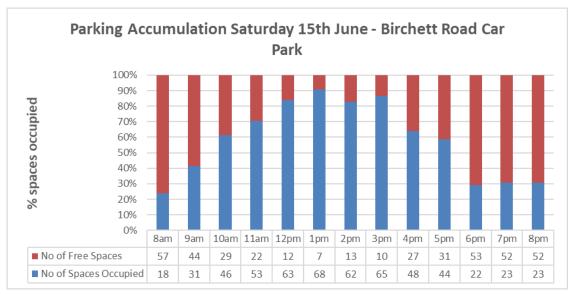


Figure 3.10: Number of Parked Cars in Birchett Road Car Park on Saturday 15th June



Princes Hall Car Park Results

3.9 Princes Hall car park has 43 spaces, including 2 disabled spaces. As can be seen from **Figure 3.11** below, the maximum occupancy on Tuesday was at 4pm (72%), I.e. there was approximately 28% spare capacity. Between 4 to 5 pm occupancy dropped by 20 vehicles and slightly increased in the evening. As can be seen from **Figure 3.12**, the maximum occupancy on Saturday was at 7pm (40%), i.e. there was approximately 60% spare capacity. The car park was busier on the Tuesday compared to the Saturday. It should be noted that Princes Hall car park is for use by permit holders only during the day, on weekdays. It is only open to the public after 6pm Monday to Friday and on weekends. It should be noted that the car park is directly adjacent to the Princes Hall Theatre and, therefore, can get very busy on show days and evenings.

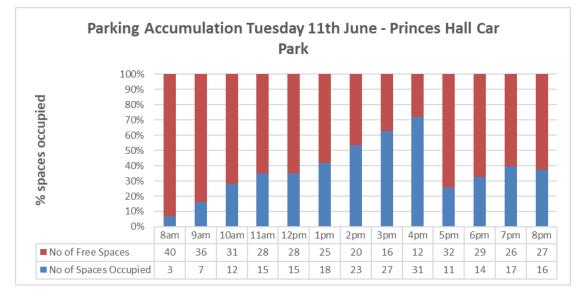


Figure 3.11: Number of Parked Cars in Princes Hall on Tuesday 11th June



Figure 3.12: Number of Parked Cars in Princes Hall Car Park on Saturday 15th June

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Westgate Car Park Results

3.10 Westgate car park has 505 spaces, including 30 disabled spaces. As can be seen from both Figures 3.13 and 3.14 below, the maximum occupancy was recorded at 8pm (85% on Tuesday and 86% on Saturday) i.e. there was approximately 15% and 14% spare capacity respectively. Both graphs show a similar trend, occupancy peaked at 1-2pm, slightly decreased at around 3-4pm and increased in the evening. In general, the car park was busier throughout the day on Saturday. In addition to Morrisons and Westgate customers, the car park can also get busier when productions are on at the Princes Hall Theatre.

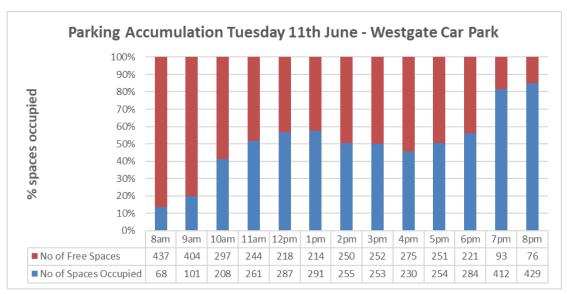


Figure 3.13: Number of Parked Cars in Westgate on Tuesday 11th June

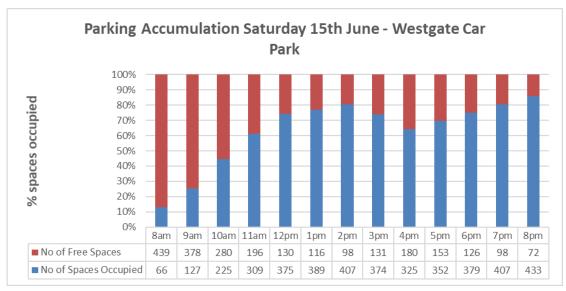


Figure 3.14: Number of Parked Cars in Westgate Car Park on Saturday 15th June

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Wellington Centre Car Park Results

3.11 Wellington Centre car park has 450 spaces, including 12 disabled spaces. As can be seen from **Figure 3.15** below, the maximum occupancy on Tuesday was at 12pm (49%) i.e. there was approximately 51% spare capacity. As can be seen from **Figure 3.16**, the maximum occupancy on Saturday was at 1pm (33%) i.e. there was approximately 67% spare capacity. The occupancy of the car park on both days dropped off significantly by the evening. The car park was busier on the Tuesday.

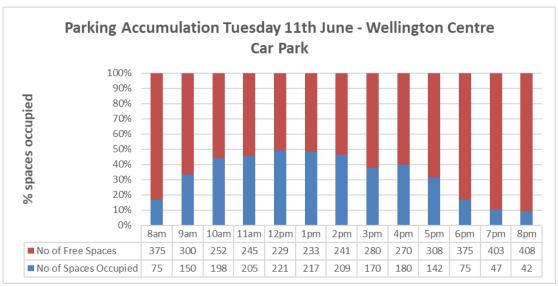


Figure 3.15: Number of Parked Cars in Wellington Centre Car Park on Tuesday 11th June

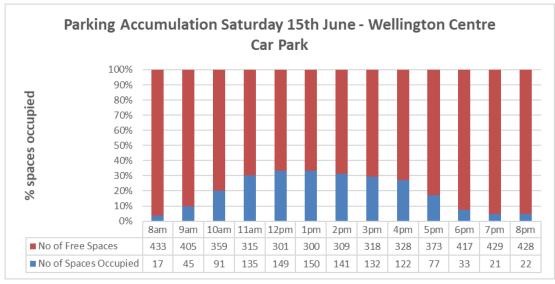


Figure 3.16: Number of Parked Cars in Wellington Centre Car Park on Saturday 15th June



Aldershot Station Car Park Results

3.12 Aldershot Station car park has 210 spaces including 4 disabled spaces. As can be seen from **Figure 3.17** below, the maximum occupancy on Tuesday was at 1pm (77%) i.e. there was approximately 23% spare capacity. The occupancy increased throughout the day reaching the peak around noon, then started to decrease in the afternoon and significantly decreased in the evening. As can be seen from **Figure 3.18**, the maximum occupancy on Saturday was at 3pm (34%) i.e. there was approximately 66% spare capacity. There was a gradual increase in occupancy on Saturday, peaking in the afternoon and a gradual decrease in the evening. Tuesday was significantly busier than Saturday, owing to mid-week commuter demand.

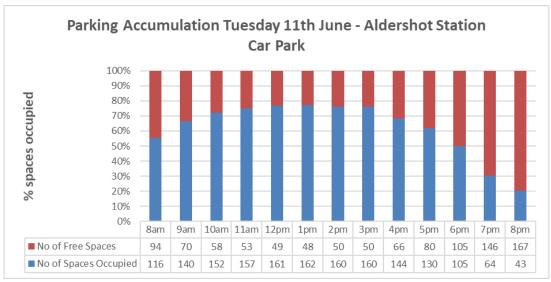


Figure 3.17: Number of Parked Cars in Aldershot Station Car Park on Tuesday 11th June

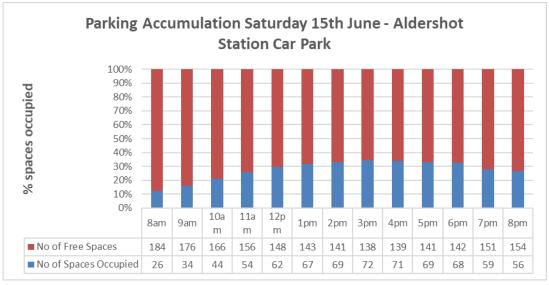


Figure 3.18: Number of Parked Cars in Aldershot Station Car Park on Saturday 15th June

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Parsons Barracks Car Park Results

- 3.13 Parsons Barracks car park has 167 spaces, including 6 disabled spaces. As can be seen from **Figure 3.19** below, the maximum occupancy on Tuesday was at 12pm (30%) i.e. there was approximately 70% spare capacity. As can be seen from **Figure 3.20**, the maximum occupancy on Saturday was also at 12pm (8%) i.e. there was approximately 92% spare capacity. In general, both days showed an increase in occupancy between 8am and 12pm and a decrease in the afternoon and evening. Tuesday was significantly busier than Saturday; but there was still ample spare capacity on both days.
- 3.14 We have been informed that Parsons Barracks car park is to be sold off for development. This will of course result in the cars which currently park there being displaced (most likely to the Co-Op car park and Aldershot Station car parks). On football days, Aldershot Station car park is most likely to be used by fans.

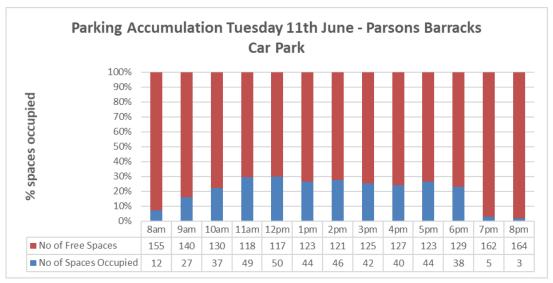


Figure 3.19: Number of Parked Cars in Parsons Barracks Car Park on Tuesday 11th June



Figure 3.20: Number of Parked Cars in Parsons Barracks Car Park on Saturday 15th June

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Analysis of On-street Parking Survey Results

- 3.15 Capacity bar charts, duration of stay pie charts and user types pie charts have been produced for each road in the study area. Plans are included within **Appendix C**.
- 3.16 The 'existing site features' surveys helped to determine the capacity bar charts. The existing site features plans are included in **Appendix A** and in tabular form, including the number and type of spaces, in **Appendix B**.
- 3.17 Whilst individual lengths and sections of roads have been analysed (results in **Appendix C**), the descriptive analysis given below will group roads where applicable, in order to provide a picture of the state of on-street parking within a particular area. The capacity bar charts will be discussed first, followed by the duration of stay pie charts for each road / group of roads.

Town Centre Results West of and including Barrack Road

- 3.18 This area includes Alexandra Road and Barrack Road. Alexandra Road and Barrack Road contained predominantly short stay parkers (0-4 hours) on both the Tuesday and Saturday survey days, with over 65% of parkers classified as short stay at any one time. On the Tuesday survey, both roads were at or close to capacity for much of the day. On the Saturday survey, the capacity for both roads in the morning were below 50% and peaked at noon.
- 3.19 Alexandra Road contains 9 P&D spaces and Barrack Road contains 6. It is probable that most of those vehicles parked in these roads during each survey beat were parked in the P&D bays and the peak in volume in Alexandra Road is possibly due to taxis picking up at those times.

East of and including Pickford Street (excluding Victoria Road)

- 3.20 This area includes Pickford Street, Sebastopol Road, Crimea Road and Windsor Way. The capacity bar charts for Tuesday show that Sebastopol Road, Pickford Street and Crimea Road were at or close to capacity and at times over capacity. The Saturday surveys for Pickford Street show that occupancy peaked during the early morning and in the evening and dropped during midday, whereas Sebastopol Road reached maximum occupancy during midday and stayed at a constant rate at around 75-90% the rest of the day.
- 3.21 Pickford Street and Sebastopol Road contained mostly short stay parkers (0-4 hours) on both Tuesday and Saturday survey days, except for the Sebastopol Road Saturday survey which contained a higher number of long stay parkers. The varied duration of stay is likely due to the lack of signed restrictions for the on-street bays on Sebastopol Road.
- 3.22 The capacity bar chart for Crimea Road for Tuesday shows fluctuations throughout the day, peaking at noon, whereas the Saturday chart shows an overall decrease in occupancy throughout the day. Crimea Road contained predominantly short stay parkers on the Tuesday survey day, with over half accounted for, and the Saturday survey shows predominantly short stay parkers (47%) and residential parkers (28%).



South of Victoria Road

- 3.23 This area includes Birchett Road, Gordon Road (north of Birchett Road), Frederick Street and Heathland Street. For Elms Road, Arthur Street and South Grosvenor Road see paragraph 3.32.
- 3.24 The capacity bar chart for Tuesday shows that for Birchett Road the capacity decreased towards 10am, then increased towards the late afternoon peaking at 66% and decreasing in the evening. The Saturday survey shows fluctuations in the occupancy ranging between 35% and 71% and the busiest times were between 10am and 5pm. The majority of the bays along Birchett Road are 'Permit Holders Only' and 'Permit Holders or Pay at machine'. Despite the mainly residential nature of the road, around 80% of vehicles parked along Birchett Road were short stay (0-4 hours).
- 3.25 The other roads linking Victoria Road and Birchett Road contain a small number of limited waiting parking spaces. Gordon Road was at low occupancy in the morning, occupancy around noon was exceeding capacity and occupancy in the afternoon to the evening fluctuated on both days. All vehicles that parked during the Tuesday and Saturday survey days were short stay (0-4 hours). Heathland Street occupancy on the survey days was low in the morning and fluctuated throughout the day. Around 96% of the cars parked during the surveys stayed between 0-4 hours.

East of Barrack Road, west of Pickford Street and north of and including Victoria Road and Station Road

- 3.26 This area includes Short Street, Lower Nelson Street, Cross Street, Grosvenor Road, Princes Way, Little Wellington Street, High Street, Station Road and Victoria Road. The main thoroughfares through the town centre are Victoria Road and the High Street. Victoria Road contains an estimated 69 parking spaces, whilst the High Street contains 44 parking spaces.
- 3.27 Occupancy for Victoria Road was low in the morning for both days and the occupancy for the rest of the Tuesday survey fluctuated between 40% and 65%, whereas for the rest of the Saturday survey the occupancy generally fluctuated between 50% and 70%. In general, the occupancy for the High Street fluctuated between 40% and 60%. At least 97% of the vehicles in both roads were short stay parkers (0-4 hours).
- 3.28 The capacity bar charts for Station Road for both days show low occupancy in the morning and the occupancy for the rest of the day was either at, close to or exceeded parking capacity. Generally late afternoon and evening on the Saturday were the busiest times. The vast majority were short stay parkers (93% and 95%), but there were some longer stay parkers.
- 3.29 The surveys of Grosvenor Road show fluctuations in occupancies throughout the day. In general, the peaks in occupancies occurred during the morning and the evening. Around 99% of the cars parked were short stay (0-4 hours). This high percentage is most likely due to the short stay nature of the parking bays on Grosvenor Road.
- 3.30 Cross Street has capacity of 2 spaces for disabled badge holders only. The Tuesday survey showed that one vehicle was parked between the hours of 10am to 12pm and 7pm to 8pm.

Saturday was busier with at least one or more vehicles parked on the road from 10am onwards. The occupancy exceeded the capacity at 1-2pm, with 3 vehicles parked on the road. Most of the vehicles were short stay parked for between 0-4 hours.

3.31 Short Street also has a capacity of 2 spaces for disabled badge holders only. The Tuesday survey did not record any vehicles between 6am to 8pm. The Saturday survey showed that at least one of the bays was being used from 11am onwards. The occupancy exceeded the capacity between 2pm to 3pm and 5pm to 6pm. The extra vehicle was likely parked on a double yellow line. All vehicles parked were short stay.

On-street Parking 2nd Survey

- 3.32 Due to issues with the parking survey conducted on Tuesday 11th of June 2019 and Saturday 15th June 2019, in the area covering Elms Road, Arthur Street and Grosvenor Road south of Victoria Road only, a second parking survey was undertaken on Saturday 27th July 2019 and Tuesday 30th July 2019. Station Road and Birchett Road were resurveyed to act as a control, as the 2nd survey was conducted during school holiday. Comparing the results of the two surveys will show the impacts of the school holiday on the second survey, thus we can apply a multiplication factor to negate its effects, if required.
- 3.33 Comparing the survey results for Birchett Road and Station Road show that the trends throughout the day were similar. However, school holidays had conflicting effects on the occupancy of the resurveyed roads. The total number of occupied spaces has increased at Birchett Road by a factor of 1.15, whereas, Station Road has decreased by a factor 0.15. As the results show slightly higher occupancies compared to the first survey, we have decided not to apply a multiplication factor for the second survey results and these results will act as a worst-case scenario for the roads surveyed.

Arthur Street

3.34 The capacity bar chart for Tuesday shows that peak occupancy, around 70%, occurred during the early morning, 06:00-07:00, and in the evening 18:00-20:00. Between 07:00 and 18:00, occupancy fluctuated between 26%-44%. Saturday was busier compared to Tuesday, with occupancies fluctuating between 40%-61%. The Tuesday survey show that most users were short stay parkers, with a 70% and 30% split between short stay and residential use, respectively. Around 58% of cars were short stay, 32% residential use and 10% commuter use on the Saturday survey.

B3007 Grosvenor Road (South)

3.35 The Tuesday survey showed an overall increase in occupancy throughout the day, occupancy in the morning was around 45% and between 17:00-19:00 reaching the maximum occupancy. The Saturday survey had fluctuating results, between 11% and 90%, but never reached full capacity. The average occupancy was 58% throughout the day. The majority of users for both days more than 80% were short stay.



Elms Road

- 3.36 Elms Road showed relatively high occupancies for both survey days, with more than 50% of the users being residential. Tuesday survey showed occupancy peaked at 90% in the early morning and evening. The occupancy in between fluctuated around 55% and 76%. The occupancy for the Saturday survey was more consistent, varying between 84% and 95%.
- 3.37 In summary:
 - The overall parking occupancy peaked at between 11am and 12 noon during the Tuesday survey;
 - On-street parking was slightly busier overall on the Saturday survey day. It was consistently busy throughout the afternoon, with a slight peak at between 4pm and 5pm;
 - The vast majority of visitors to the town centre who parked on-street stayed for up to or just over 1 hour on both the Tuesday and Saturday, with a higher proportion of short stay visitors on the Saturday;
 - The outer lying roads of Alexandra Road, Barrack Road, Birchett Road, Heathland Street, Victoria Road eastern end, Crimea Road, Sebastopol Road and Pickford Street had the longest duration of stay and, hence, least turnover. Peak duration of stay in these roads was around 6 to 10 hours or more;
 - Roads closer into the town centre, Victoria Road and High Street, tended to have a duration of stay of between 1 to 3 hours and, consequently, a higher rate of turnover.



Use of Disabled Bays

3.37 The use of disabled bays has been determined from the survey data. In order to determine the demand for disabled parking in each road, the number of cars parked in disabled bays in each road was subtracted from the number of disabled parking spaces in that road. Tables 3.1 and 3.2 show the results of this analysis and show the number of spare disabled parking spaces in each road, for each survey interval. Figures 3.21 and 3.22 show the total cars displaying a blue badge parked and disabled vacant spaces for all roads combined, for each survey interval.

Table 3.1: Use of disabled bays by road and hour

	s										N	o. blue	e badge	hold	er park	ed and	spare	disabl	ed bay	s									
	ace	6am -	7am	7am-	8am	8am -	9am	9am-2	10am	10am-	11pm	11am-	12pm	12pm	-1pm	1pm-	2pm	2pm-	-3pm	3pm-	4pm	4pm-	5pm	5pm-	6pm	6pm-	7pm	7pm-8	pm
Road Name	No. Disabled Sp	No. Cars Parked	No. Spare Spaces																										
A323 High Street	2	0	2	1	1	0	2	1	1	1	1	0	2	1	1	0	2	1	1	1	1	1	1	0	2	1	1	1	1
B3007 Grosvenor Rd	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
B3007 Princes Way	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2
Birchett Road	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
Crimea Road	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1
Edward Street	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
Gordon Road	1	0	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1
Heathland Street	2	0	2	0	2	0	2	2	0	0	2	2	0	2	0	2	0	1	1	1	1	1	1	0	2	0	2	0	2
High Street	6	0	6	1	5	1	5	2	4	2	4	3	3	1	5	1	5	3	3	2	4	2	4	0	6	1	5	1	5
Short Street	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2
Station Road	2	0	2	0	2	0	2	0	2	0	2	0	2	1	1	0	2	0	2	0	2	0	2	0	2	0	2	0	2
Union Terrace	2	0	2	0	2	0	2	0	2	2	0	2	0	2	0	1	1	0	2	0	2	0	2	0	2	0	2	0	2
Victoria Road	5	0	5	0	5	0	5	0	5	1	4	3	2	3	2	1	4	1	4	3	2	1	4	1	4	2	3	1	4
Total	28	2	26	4	24	3	25	7	21	8	20	12	16	13	15	8	20	8	20	8	20	6	22	2	26	5	23	4	24

Table 3.2: Use of disabled bays by road and hour

	s										N	lo. blue	e badge	e holde	er park	ed and	l spare	disabl	ed bay	s									
	ace	6am -	7am	7am-	8am	8am -	9am	9am-3	10am	10am-	11pm	11am-	12pm	12pm	-1pm	1pm-	2pm	2pm-	3pm	3pm-	4pm	4pm-	5pm	5pm-	6pm	6pm-3	7pm	7pm-8	pm
Road Name	No. Disabled Sp	No. Cars Parked	No. Spare Spaces																										
A323 High Street	2	0	2	0	2	0	2	2	0	0	2	1	1	0	2	1	1	0	2	0	2	0	2	0	2	1	1	0	2
B3007 Grosvenor Rd	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	0	1	1	0	1	0	1	0	0	1	0	1	1	0
B3007 Princes Way	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	1	1
Birchett Road	1	1	0	0	1	0	1	0	1	0	1	0	1	0	1	1	0	0	1	0	1	0	1	0	1	0	1	0	1
Crimea Road	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0
Edward Street	1	0	1	0	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	1
Gordon Road	1	0	1	0	1	0	1	0	1	1	0	1	0	1	0	0	1	1	0	0	1	1	0	0	1	0	1	1	0
Heathland Street	2	0	2	0	2	0	2	0	2	1	1	1	1	1	1	1	1	2	0	2	0	1	1	2	0	1	1	1	1
High Street	6	1	5	1	5	1	5	2	4	5	1	2	4	5	1	3	3	3	3	2	4	3	3	3	3	2	4	2	4
Short Street	2	0	2	0	2	0	2	0	2	0	2	1	1	1	1	1	1	2	0	1	1	1	1	2	0	1	1	1	1
Station Road	2	0	2	0	2	0	2	0	2	0	2	1	1	1	1	0	2	1	1	0	2	0	2	0	2	0	2	0	2
Union Terrace	2	0	2	0	2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
Victoria Road	5	0	5	0	5	1	4	1	4	3	2	4	1	3	2	2	3	4	1	4	1	3	2	3	2	0	5	1	4
Total	28	3	25	2	26	3	25	7	21	14	14	15	13	17	11	13	15	18	10	13	15	13	15	14	14	8	20	11	17

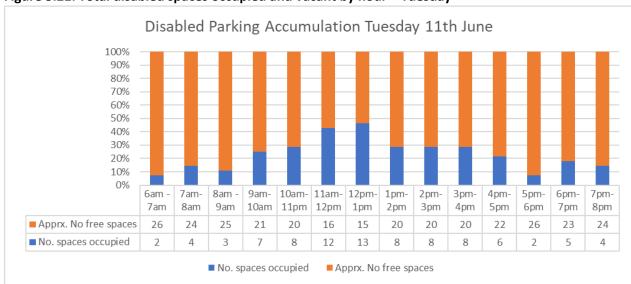
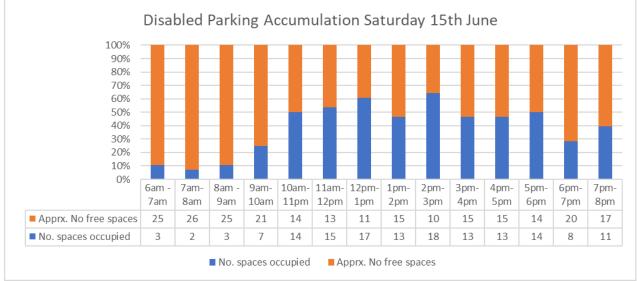


Figure 3.21: Total disabled spaces occupied and vacant by hour – Tuesday





3.38 **Figures 3.21 and 3.22** above shows that disabled bays were generally well used throughout the day, especially between 10am and 5pm on the Saturday. For roads with higher capacity for disabled bays, such as the High Street and Victoria Road, there were periods of the day when they were unused. Disabled bays on B3007 Grosvenor Road and B3007 Princes Way experienced little to no usage during the survey days.



Use of Cycle Stands

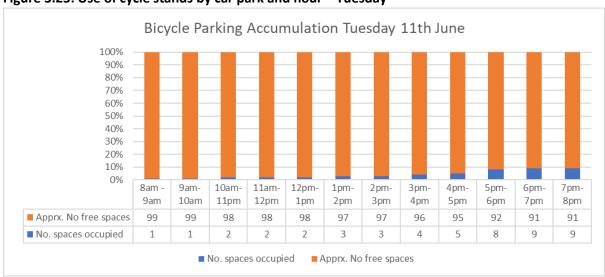
3.39 The use of cycle stands has been determined from the survey data. In order to determine the demand for cycle stands for each car park, the number of bicycles parked were subtracted from the number of bicycle stand spaces in that car park. **Tables 3.3 and 3.4** show the results of this analysis and shows the number of vacant bicycle spaces in the car park, for each survey beat. **Figures 3.23 and 3.24** show the total bicycles parked and vacant spaces for all car parks combined, for each survey interval.

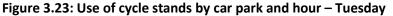
Table 3.3: Use of cycle stands by car park and hour

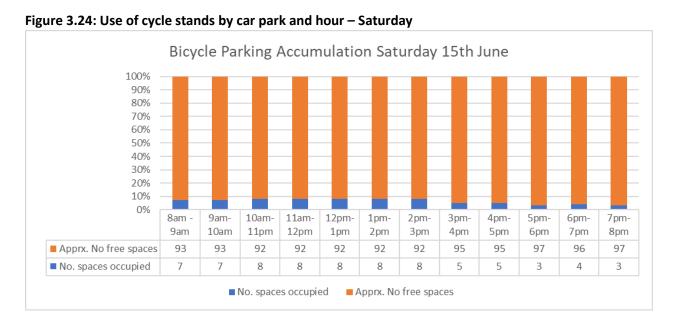
	es	8am -	9am	9am-3	10am	10am-	11pm	11am-	·12pm	12pm	-1pm	1pm-	2pm	2pm-	3pm	3pm-	4pm	4pm-	5pm	5pm-	6pm	6pm-	7pm	7pm-	8pm
Car Park	No. bicycle space	No. Bicycles Parked	No. Spare Spaces																						
Princes																									
Gardens	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	1	7	1	7	2	6	2	6
High Street																									
Multi Storey	20	0	20	0	20	1	19	1	19	1	19	2	18	2	18	2	18	2	18	5	15	5	15	5	15
Aldershot																									
Station	72	1	71	1	71	1	71	1	71	1	71	1	71	1	71	2	70	2	70	2	70	2	70	2	70
Total	100	1	99	1	99	2	98	2	98	2	98	3	97	3	97	4	96	5	95	8	92	9	91	9	91

Table 3.4: Use of cycle stands by car park and hour

	ces	8am -	9am	9am-	10am	10am-	11pm	11am-	12pm	12pm	-1pm	1pm-	2pm	2pm-	3pm	3pm-	4pm	4pm-	5pm	5pm-	6pm	6pm-	7pm	7pm-	8pm
Car Park	No. bicycle spac	No. Bicycles Parked	No. Spare Spaces																						
Princes																									
Gardens	8	0	8	0	8	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1	7	1	7	0	8
High Street																									
Multi Storey	20	6	14	6	14	6	14	6	14	6	14	6	14	6	14	3	17	3	17	0	20	0	20	0	20
Aldershot																									
Station	72	1	71	1	71	1	71	1	71	1	71	1	71	1	71	1	71	1	71	2	70	3	69	3	69
Total	100	7	93	7	93	8	92	8	92	8	92	8	92	8	92	5	95	5	95	3	97	4	96	3	97







3.40 **Figures 3.23 and 3.24** above shows that the bicycle parking space in Princes Gardens, Aldershot Station and High Street Multi Storey car parks are well under-utilised. The High Street Multi Storey car park had the highest occupancy with 30% of the bicycle parking spaces occupied between 8am and 2pm on the Saturday.

4.0 Comparison with 2014 and 2017 survey results

4.1 This section of the report aims to compare the results of the 2019 study with the previous studies conducted in 2014 and 2017.

Key differences between the 2014 study and the 2019 study

- 4.2 The Aldershot Parking Study Report 2014 was undertaken to identify any improvements to the use of existing on-street and off-street car parking facilities and to identify areas where parking may have required better management. Comprehensive and detailed off-street parking surveys, shown in **Appendix D**, and on-street surveys, shown in **Appendix E**, were carried out on Thursday 21st November and Saturday 23rd November 2013. The proportion of short stay visitors, residents and commuters were determined according to a methodology used on previous projects.
- 4.3 The 2013 surveys included Council run car parks only, so Wellington Centre, Westgate and Aldershot Station car parks were not included. Parsons Barracks and Princes Hall car parks were also not included.

Off-street Parking

- 4.4 Comparing the off-street parking results for 2014 and 2019 shows a slight decrease in overall occupancy in 2019. In general, all the car parks surveyed in 2014 were busier and had higher occupancy rates compared to the 2019 study, these include Princes Gardens, High Street multi-storey, Cross Street, Co-Op and Birchett Road. The only rise in occupancy between 2014 and 2019 was seen at the Cross Street and Princes Gardens Car Parks on the weekend surveys.
- 4.5 Cross Street, Co-Op and Birchett Road Car Parks show similar trends between the 2014 and 2019 studies, however the peak times changed in Princes Gardens and High Street multistorey car parks. The weekday and weekend peaks for Princes Gardens Car Park changed from 11am- 1pm in 2014 to 7pm-8pm in 2019 and from 6pm-8pm in 2014 to 1pm-3pm in 2019, respectively. For High Street multi-storey car park the peak occupancy hours changed from 2pm-4pm in 2014 to 7pm-8pm in 2019.

On-street Parking

- 4.6 Overall, over half of the roads surveyed show an increase in occupancy between 2014 and 2019, with Barrack Road, Frederick Street and Station Road showing a significant increase in occupancy. On-street parking occupancy decreased in Cross Street, High Street and Sebastopol Road. Birchett Road, B3007 Princes Way, Crimea Road and Heathland Street, Elms Road and Arthur Street show similar occupancy rates between the surveys undertaken in 2014 and 2019.
- 4.7 In general, there has been a significant increase in short stay parkers, slight increase in commuter use and decrease in residential use. Heathland Street, Station Road and Elms Road are the only ones that show a decrease in short stay parkers.



Key differences between the 2017 study and the 2019 study

4.8 The Aldershot Parking Study Report 2017 was undertaken to determine the cumulative occupancy of the parking stock in Aldershot town centre. Comprehensive and detailed off-street parking surveys, shown in **Appendix F**, and on-street surveys, shown in **Appendix G**, were carried out on Saturday 1st April and Tuesday 4th April 2017.

Off-street Parking

- 4.9 In summary, occupancy of off-street parking has reduced. Only 3 car parks (Princes Gardens, Cross Street and Aldershot Station) had a rise in occupancy between 2017 and 2019, whereas 6 car parks (Co-Op, Birchett Road, Princes Hall, Westgate, Wellington Centre and Parsons Barracks) showed decreases in occupancy, some significantly so. High Street Multi-Storey car park is the only one that had more or less similar results compared to the 2017 study.
- 4.10 In general, the results of the 2017 and 2019 studies show similar trends and the busiest periods occurred at the same times of day. Some exceptions include the High Street multistorey car park (2017 peak occurred during the early to mid afternoon and 2019 peak occurred during the evening) and Princes Hall Car Park (2017 peak occurred between 10am-3pm and 2019 occurred between 3-4pm).

On-Street Parking

- 4.11 Overall, 10 out of the 22 roads surveyed show an increase in occupancy between 2017 and 2019. These roads include Alexandra Road, B3007 Grosvenor Road, Court Road, Crimea Road, Cross Street, Frederick Street, Pickford Street, Station Road, Victoria Road and Windsor Way. In contrast, 9 roads showed a decrease in occupancy; A323 High Street, B3007 Princes Way, Barrack Road, Heathland Street, Little Wellington Street, Nelson Street, Sebastopol Road, Short Street and Upper Union Terrace. Occupancy rates in Birchett Road, Gordon Road and High Street show similar results to the study conducted in 2017.
- 4.12 Surveys conducted during the weekend show significant changes in occupancy rates between the 2017 and 2019 results, whereas, surveys conducted during the weekday have produced more comparable results.
- 4.13 The majority of on-street parking users for both studies were short stay, only parking between 0-4 hours. In general, the proportion of short stay parkers has increased, most prominently along the A323 High Street, Barrack Road, Crimea Road and Sebastopol Road. Windsor Way is an exception; short stay decreased from the 100% to 80%.

Analysis

4.14 Overall, the surveys show that there has been a decrease in the number of people using offstreet parking and an increase in the usage of on-street parking. The apparent switch between off-street parking to on-street parking could be related to the increase in short stay parkers on-street as well. It could be that shoppers want to spend less time in Aldershot; just pop-in and pop-out, rather than taking their time to shop, eat, drink or engage in leisure activities.



- 4.15 The time of year that the surveys were undertaken needs to be taken into consideration as well. The 2013/14 parking surveys were undertaken in late November. Whilst not peak Christmas shopping period, some people may have started to prepare and so footfall may have been slightly higher as a result.
- 4.16 It is always difficult to make any accurate and meaningful comparisons of traffic survey results from year to year, as a variety of factors can cause significant differences from year to year, month to month and even week to week. Any conclusions drawn from comparing these survey results should be taken with caution.

5.0 Future parking demand (Forecasting)

5.1 This section of the report considers future parking demand which *could* be imposed on the town centre. We consider historic traffic trends, the nationally recognised traffic growth model (TEMPro), emerging development proposals and potential demographic changes, before considering the combined effect and applying it to the parking surveys.

Historic trends in traffic flow and parking data

- 5.2 To begin with we looked at historic trends in traffic flow data in the local area. The Department for Transport (DfT) produces estimated historic two-way Annual Average Daily Traffic (AADT) flows for all motorways, 'A' roads and some minor road links throughout the UK. Two-way AADT flow data was available for the following locations close to Aldershot town centre:
 - A323 east of town;
 - A325 north of the Wellington roundabout;
 - A325 south of the Wellington roundabout;
 - A331 north of the A323 junction, and;
 - A331 south of the A323 junction.
- 5.3 We have plotted the AADT two-way flows from each count site on a graph for the past 10 years and the results can be seen in **Figure 5.1** below.

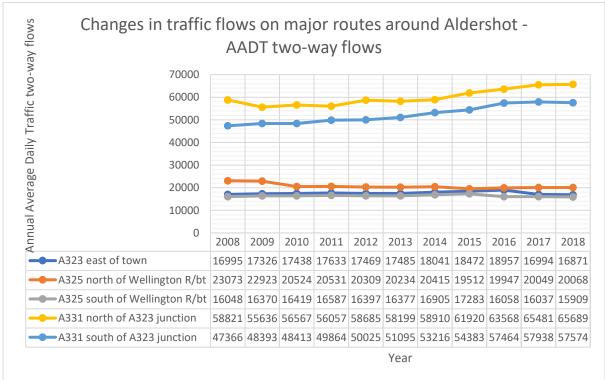


Figure 5.1 – Changes in AADT two-way flows on major routes around Aldershot

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- 5.4 As can be seen from **Figure 5.1** above, the traffic flows on the A331 have clearly increased over the past 10 (between 12% and 22% increase) and 5 years (13% increase). However, on the more local distributor roads (A323 and A325), traffic flows have remained largely unchanged (actually reducing by around 3 or 4% over the past 5 years).
- 5.5 We have also looked at the differences in the on and off-street parking results in the town centre over the past 5 years (comparing the 2014 parking survey results with the 2019 results, as outlined in **Section 4.0**).
- 5.6 The comparison of the parking surveys undertaken in 2013/14 and 2019 show mixed results. The parking occupancy in the car parks has, on the whole, decreased over the past 5 years, whereas the parking occupancy on-street has, on the whole, increased slightly over the past 5 years. As explained at the end of Section 4.0 though, traffic patterns can change from year to year and month to month, so it is always difficult to draw any concrete conclusions.

Trip End Model Presentation Program (TEMPro)

- 5.7 TEMPro is a traffic growth forecasting software, which uses data from the National Trip End Model (NTEM). It is usually used as part of assessing the traffic impact of a new development on the local highway network. The model used in the software takes account of predicted changes in population, employment, housing, car ownership and trip rates. The NTEM datasets and TEMPro software are produced and approved by the DfT.
- 5.8 We have been asked to consider an assessment year for future parking demand and supply of 2024 (5 years after writing this report). We have interrogated the TEMPro model for the Wellington Ward, which covers Aldershot town centre. When considering both the average day and average weekday, the traffic growth factor derived from the model is **+6.7%**.

Emerging development proposals

5.9 A list of the latest developments currently under construction or proposed has been supplied to us by Rushmoor Borough Council's Regeneration Department. We have compiled a summary table outlining the proposed number of units / commercial floor space, current progress (i.e. if during construction, how much has already been built out), anticipated progress by 2024 (assessment year) and the anticipated number of parking spaces to be provided. The summary can be seen in **Table 5.1** below.



	Total	Additional	Current	Progress by	Parking to be
Development site	units	facilities	progress	2024	provided
Wellesley	3850	2 Primary Schools, Day care facilities, Neighbourhood centre, Offices, Pub / restaurant, Local Shops, Play areas	1800	2400	To Rushmoor BC parking standards
The Galleries and Arcades	602	2787sqm commercial space	Consultation	452	602 residential + 250 space public car park. 845 residential cycle parking spaces + 15 commercial cycle parking space.
Union Street East	140	1210sqm commercial space	Consultation	140	115 on-site + 25 spaces within existing off-site car park
Hippodrome House	70	-	Pre-App	70	50 spaces on-site + 20 spaces off- site
Bus Station development	32	617sqm retail	Pre-App	32	32 on site
Railway Station Public Realm	-	-	Pre-App	N/A	Loss of 6 spaces within existing station car park
Wellington Centre	25	-	Pre-App	25	25 spaces within existing car park
Willow House	25	-	Pre-App	25	None
The Old Warehouse, Star Yard	14	-	Pre-App	14	14 on site

Table 5.1 – Summary of development proposals in and around Aldershot

5.10 As can be seen from **Table 5.1** above, the only development which is currently under construction is also the largest, the Wellesley development (formerly known as the Aldershot Urban Extension). The other developments are currently proposed and are, by and large, all located within the town centre.

- 5.11 All but one of the developments will provide parking for residents. This means that the majority of the new developments are unlikely to attract additional demand for parking spaces. There will be some additional trips from residents visitors and customers to the new commercial units. Given the town centre location of most of the development sites as well, this will also discourage car use and potentially car ownership of the future residents of these developments.
- 5.12 It is also noted that there will be some changes to the existing car park arrangements. The biggest change will be the removal of the High Street multi-storey car park as part of the Galleries regeneration project. The car park currently has 326 car parking spaces and this will be replaced with a 250 space public car park. The development will also provide 845 residential cycle parking spaces and 15 commercial cycle parking spaces. Parsons Barracks is also to be sold off for development and will not be used in the coming years. The Railway Station car park will also lose 6 spaces as a result of the proposed public realm improvements.
- 5.13 The other changes to the existing car park arrangements involve utilising existing public parking spaces as spaces for residential use. This includes 25 off-site spaces for the Union Street East development, 20 off-site spaces for the Hippodrome House development and 25 spaces within the Wellington Centre car park.
- 5.14 The 25 spaces for the Wellington Centre development will be located within the Wellington Centre car park. The other 45 spaces are likely to have to be accommodated in a mixture of the Princes Garden car park, Birchett Road car park, Co-Op car park and/or the new 250 spaces Galleries car park. Princes Gardens, Birchett Road and Co-Op car parks are already at or over capacity for part of the day, so there is little spare space to convert to residential use. However, in reality, if some spaces in these car parks are designated for residents only, shoppers are likely to park elsewhere (e.g. the Wellington Centre car park, or perhaps Westgate).
- 5.15 As part of the forecasting exercise, we have transferred the High Street multi-storey parked cars into the proposed new 250 space Galleries car park. In order to account for the 45 off-site residential spaces, we have subtracted 45 spaces from the proposed new 250 space Galleries car park.
- 5.16 As stated above, in reality, if spaces are utilised for residential use in the Princes Gardens, Birchett Road and Co-Op car parks, there is ample capacity in the Wellington Centre car park to accommodate displaced shoppers cars. This will also benefit the Wellington Centre in terms of increased income from parking and footfall.
- 5.17 As Parsons Barracks will be developed and not be used as public car parking, its forecasted occupancy will need to be allocated to other car parks. The peak forecasted weekend occupancy is estimated to be 54 occupants and 14 on the weekend. The forecasted occupancy during the weekday will be split 50/50 between Aldershot Station car park and Co-Op car park. Forecasted weekend occupancies will be allocated to Aldershot Station car park only. For events such as football days, Aldershot Station can be used as opposed to Parson Barracks.

- 5.18 In terms of additional trips and parking demand generated to or attracted by the proposals, as stated before the majority of the development proposals are located within the town centre and will have their own parking on site, or designated within nearby car parks. However, the Wellesley development will generate some new trips towards the town centre and the new commercial space (assumed retail) will attract some new trips.
- 5.19 In order to estimate trips generated by the residential development or attracted by the commercial developments, we have used trip rates from the TRICS database. TRICS is a nationally recognised trip rate database, which uses traffic survey data from other similar developments to derive a trip rate per individual residential unit (i.e. 1 flat), or per 100sqm of commercial (i.e. retail) floorspace.
- 5.20 The likely new trips (associated with the development proposals) generated to / attracted by the town centre can be seen in **Table 5.2** below.

Development site	Daily residential trip rates - one-way (based on Wellesely TRICS data)	Estimate daily residential trips - one- way	Estimated % driving into town (based on NTS and assumptions)	Commercial daily trip rate - one-way (based on 'Mixed Shopping Malls' TRICS data) (per 100sqm)	Estimated commercial daily trips - one-way	Likely daily parking demand
Wellesley	2	1200	7%	N/A	N/A	84
The Galleries and Arcades	N/A*	N/A*	N/A*	11	307	307
Union Street East	N/A*	N/A*	N/A*	11	133	133
Hippodrome House	N/A*	N/A*	N/A*	-	-	-
Bus Station development	N/A*	N/A*	N/A*	11	68	68
Wellington Centre	N/A*	N/A*	N/A*	-	-	-
Willow House	N/A*	N/A*	N/A*	-	-	-
The Old Warehouse, Star Yard	N/A*	N/A*	N/A*	-	-	-
TOTAL	-	-		-	-	592

Table 5.2 – Estimated trips and parking demand from development proposals (2024)

*These development sites are already located within the town centre and will be provided with designated parking spaces for residents.

- 5.21 As we are ultimately considering parking demand, any TRICS data we have looked at, we have only considered one-way movements, as opposed to arrival and departure trips.
- 5.22 For the Wellesley development, the TRICS data used predicts that there will be an average of 2 (one-way) trips per dwelling. On the basis of 600 additional dwellings being constructed between now and 2024, this would equate to 1200 additional one-way trips. However, of course, only a small proportion will make journeys to Aldershot town centre for shopping purposes. We have looked at the 2017 National Travel Survey statistics (Table NTS9913) and this shows that around 22% of all journeys made in the south-east of England are for shopping, sport or entertainment purposes. However, not all of these will head to Aldershot town centre some will go to Farnborough, some to Camberley, some to Guildford and some to local centres etc. We have assumed that 1/3rd of the 22%, 7% will go to Aldershot.
- 5.23 For the new commercial units forming part of the Galleries, Union Street East and Railway Station developments, the TRICS data we have obtained estimates that there will be 11 one-way vehicular trips per 100sqm of commercial floor space.
- 5.24 It should be noted that the residential TRICS data used from the Wellesley Transport Assessment was for a weekday, whilst the 'Mixed Shopping Malls' TRICS data, obtained directly from the TRICS database, was for a Saturday. Unfortunately, these are the days of the week commonly used for these different uses and we are unable to obtain residential TRICS data for a Saturday, or 'Mixed Shopping Malls' TRICS data for a weekday. As a result, the residential and 'Mixed Shopping Malls' TRICS trips were combined on both the Tuesday and Saturday. Therefore, when considering parking demand on the Tuesday and Saturday, it should be considered a worst case scenario.



Change in demographic

5.25 We have looked at the 2011 Census data for age range in Rushmoor. We could not locate this data for Aldershot alone. The TEMPro traffic growth forecast takes account of changes in population and car ownership levels for a specific area (Wellington Ward), so we have not looked at these. Figure 5.2 below shows the age ranges of the population of Rushmoor, based on the 2011 Census records.

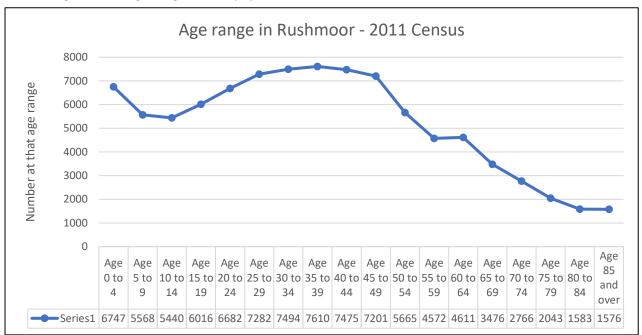


Figure 5.2 – Age ranges of the population of Aldershot (2011 Census)

- 5.26 As can be seen from **Figure 5.2** above, the majority of the population are aged between 25 and 50. There are also a large number of babies and toddlers, but the number of young children and teenagers drops off.
- 5.27 In light of the future town centre developments, Rushmoor Borough Council are expecting a younger, family demographic to be attracted to the town. However, there is no concrete data to support this at this time, other than the type of residential units being proposed.
- 5.28 The fact is that, according to the Office for National Statistics (ONS), the population of the UK is getting older, at least proportionally. As people live longer, the percentage of those aged over 65 is increasing. Rushmoor is no different. According to population age projection data published by the ONS in July 2017, the percentage of the population aged over 65 in 2016 was 13.9%. This is projected to increase to 17.7% by 2026 and to 22.1% by 2036.
- 5.29 For calculating the likely change in parking demand, zone system picture presented above, in terms of change in population age, we have assumed that this will not affect the parking demand. There may well be an increase in the number of younger people and families to the town, but there is expected to be an increase in older people as well.



Likely change in parking demand

- 5.30 It is important to bear in mind that the TEMPro traffic growth data is an overarching figure which is supposed to take account of a certain level of planning development. It is also worth noting that over the past 5 or 10 years, traffic growth (at least at the local level) has remained unchanged, or fallen slightly. We have found this to be the case at many sites across the south-east of England over the past few years.
- 5.31 We therefore, need to be careful not to over-inflate the future parking demand with a high growth factor and worst case scenario predicted trip generation, which could exaggerate the future parking demand. We equally don't want to underestimate the future parking demand and end up with fewer spaces than required. We have decided to apply the 6.7% growth factor, but it should be considered as a worst case scenario.
- 5.32 In terms of how we apply the growth and future development demand to the existing parking figures, the growth factor is applied to all existing figures (so essentially all of the existing parked car figures are inflated by 6.7%). The additional parking demand (592 vehicles) from the development proposals were then applied to specific car parks (those closest to the development proposals) and split throughout the day on the basis of existing car park usage throughout the town centre and general peaks in demand being early to mid afternoon and evening time.
- 5.33 Based on existing parking trends in the town centre, the split of the additional parking demand throughout the day has been applied as shown in **Table 5.3**.

				0		7							
8am	9am	10am 11an		12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	
4.0%	4.0%	6.0%	8.0%	10.0%	10.0%	10.0%	8.0%	6.0%	6.0%	8.0%	10.0%	10.0%	

Table 5.3 – Future parking demand hourly split

5.34 We have assumed that visitors of the proposed developments will park for around 2 hours, on average, and will mainly use the car parks. With our assumptions, an estimated hourly parking demand was produced, shown in **Table 5.4**.

	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
In	24	24	36	47	59	59	59	47	36	36	47	59	59
Out	0	0	24	24	36	47	59	59	59	47	36	36	47
Running													
Total	24	48	60	83	106	118	118	106	83	72	83	106	118

Table 5.4 – Actual future parking demand, based on an average duration of stay of 2 hours

- 5.35 It is assumed that the two closest car parks, Wellington Centre and the new Galleries and Arcades car parks, will be used the majority of the time. By subtracting the 50 residential spaces from the new 250 space Galleries car park, the car park will be very close to capacity in the late afternoon / early evening. Therefore, we have split the future parking demand 50/50 between the Wellington Centre and Galleries car parks from 8am to 2pm. For the rest of the day, 2pm to 8pm, the Wellington Centre car park will have available spaces to accommodate the remaining forecasted parking demand. Therefore, 100% has been added to the Wellington Centre car park.
- 5.36 It is always difficult predicting where future visitors to the town centre will park. Of course they will choose convenience first (i.e. closer to the shops), but they will also choose those car parks which are larger and, hence, where they are more likely to find a space. If a car park is full then they will go elsewhere to park in another one. This will, of course, be made easier if they had the benefit of real-time information on space availability before they enter the car park.
- 5.37 The revised car park result graphs for the future assessment year (2024) are shown in **Appendix H**, which includes 6.7% growth for all figures, plus the estimated parking demand from development proposals. The revised on-street result graphs for the future assessment year (2024) are shown in **Appendix J**, which just includes the 6.7% traffic growth. As explained above, because the majority of new visitors to the town centre will use the car parks, we have assumed that all of the estimated development trips will use the car parks and have only applied natural growth to the on-street results.
- 5.38 As can be seen from the forecasted off-street (car park) results, shown in **Appendix H**, on the whole, there will still be capacity within the town centre car parks to accommodate the forecasted growth and anticipated development by 2024. Cross Street car park will exceed capacity on both days, but this is because it is a small car park and tends to be full most of the day at present anyway. The Co-Op car park will also exceed capacity between 2pm and 4pm on the Saturday, as will Princes Gardens car park in the early evening, but only by a couple of vehicles.
- 5.39 It should be noted that the Princes Hall car park can easily reach its capacity during major shows and events due to its proximity to Princes Hall, which generally starts around 19:30. This is also true for Westgate car park, during key events such as public holidays. The car park is expected to reach full capacity.
- 5.40 It is important to remember that if a car park exceeds its capacity, parkers will move on to another car park. The 250 space Galleries car park is likely to be very busy at times, but the Wellington Centre car park should be promoted as a suitable alternative and is likely to be used by displaced vehicles from other central car parks.
- 5.41 As can be seen from the revised on-street results shown in **Appendix J**, many of the roads in the town centre will exceed capacity. Of course some of the roads are already close to, or exceeding capacity and this assumes that parking demand will increase in line with predicted



traffic growth (+6.7%), which as we have already mentioned is considered a worst case scenario.

- 5.42 Most of the roads which exceed capacity are either the smaller roads in the town (e.g. Union Terrace, Short Street, Court Road, Cross Street, Heathland Street and Gordon Road), which have little capacity to take further demand, or outer lying roads with no or less restrictive parking restrictions (e.g. Pickford Street, Sebastopol Road and Crimea Road).
- 5.43 Alexandra Road, Barrack Road, Station Road and Elms Road were also shown to be over capacity, whilst the main west-east roads, the High Street, Victoria Road, Birchett Road and Arthur Road all remained under capacity.
- 5.44 Similar to those car parks which are shown to exceed capacity at certain times of the day, those drivers visiting the town centre, but unable to park in one of the streets exceeding capacity will either park in a street which does have spare capacity, or in a nearby car park. At the busiest time at 1pm on the Tuesday, the Wellington Centre car park still has 134 spare parking spaces. Also at this time, there is spare capacity in some of the other car parks, such as Westgate, Birchett Road and Co-Op, so we have no doubt that there is ample spare capacity in the town centre to accommodate future growth and demand generated by development proposals.

6.0 Good practice parking case studies

6.1 This section of the report outlines good parking practice which has been used in other cities and towns across the UK and Europe, many a similar size or slightly larger then Aldershot. The case studies have been collated from a mixture of literature review research (e.g. 'In-Town Parking: What Works?' published by the Association of Town and City Management), site visits to similar local town centres and a meeting with Enterprise Car Club.

Nottingham City – real-time parking information (Intelligent Transport Systems)

- 6.2 Nottingham operates a city wide Intelligent Transport System (ITS), which includes an innovative 'ParkSmart' scheme. Essentially the City is divided in five zones and each zone is denoted by a colour coded symbol. For example, Castle zone is denoted by a castle symbol on a brown background and Royal zone by a crown symbol on a blue background. There are then associated car parks within each of these zones and drivers follow the relevant symbol on the directional sign to reach the car park they would like to park in.
- 6.3 The advance directional signs on which the zonal symbols are placed also provide real-time information on how busy a car park is and how many spaces are available. The 'ParkSmart' zone system was consulted upon with the car park owners in the City centre prior to implementation and it has been approved by the Department for Transport. It was recognised as a cost effective way of simplifying car park directional signing.

Maidenhead – ANPR / pay on exit car parks

- 6.4 Maidenheads Nicholsons Shopping Centre multi-storey car park was originally fitted with a pay-on-foot system. The issue with this system was that a barrier had to be fitted and this resulted in queuing back onto the one-way carriageway as you enter the car park, particularly during peak periods on Saturdays. Windsor and Maidenhead Council's solution was to remove the barrier and implement a Pay & Display system.
- 6.5 Whilst the Pay & Display system removed the significant queuing during peak times, the Shopping Centre started to see a decline in the numbers of visitors and a shorter duration of stay.
- 6.6 In 2012, the Council installed an Automatic Number Plate Recognition (ANPR) system, called ParkREG by Parkeon. No barriers are installed at the entrance into the car park, so queuing out onto the carriageway is not an issue. Instead ANPR cameras are installed at the entrance and exit from the car park. Drivers simply drive in, park up and don't have to worry about paying until they're ready to leave, so there is no anxiety associated with when a parking ticket is going to run out. Users are able to pay at the ticket machines by entering their vehicle registration number and are able to pay by cash or card. There is also the capability to sign up to ParkREG and pay by phone if required.



- 6.7 It is understood that following implementation there were some teething problems. The intention was to allow users to pay up to 24 hours after they've left the car park, where they could pay online at home. However, there were reports that some users couldn't enter their registration numbers, or find their vehicle. It is understood that these issues have been resolved now and many towns and cities car parks' use an ANPR system of payment, including the Wellington Shopping Centre car park in Aldershot.
- 6.8 Maidenhead also offers free parking on Sundays to entice shoppers into the town.

Colchester – tailored tariffs to encourage off-peak parking and consideration of wheelchair users

- 6.9 The North Essex Parking Partnership undertook a study due to customers being dissatisfied with the parking offer in Colchester town centre. As part of the study they identified four different types of users; commuters, shoppers, lifestyle / leisure users and weekend visitors / tourists.
- 6.10 The Council decided that the best approach would be to offer specific tariffs for the specific users, with the aim of managing congestion in the town centre and discouraging travel during peak times. The distinctive tariffs were as follows:
 - Work reduced price for all day parking for those arriving before 8am;
 - Shop reduced price for 4 hours parking for those arriving after 10am;
 - Play reduced price for 4 hours parking for those arriving after 3pm;
 - Relax reduced price weekend ticket valid at multiple car parks.
- 6.11 The Council also offered discounts to those drivers who did not fit into a specific category, but who drove low emission cars. Good partnership working and consulting with the car park owners, stakeholders and businesses was critical for the success of this scheme. A thorough understanding of the specific user needs is required in order to implement such a scheme, which may involve questionnaires.
- 6.12 In addition, the North Essex Parking Partnership also held discussions with Disabled Motoring UK, who represent disabled motorists. It was identified that wheelchair users could not actually use the payment machines provided. (According to Disabled Motoring UKs website (www.dpaccreditation.org.uk/) Aldershot Station car park is the only car park within Aldershot listed on their website).

Middlesborough – reduced parking charges

6.13 Middlesborough has a mixture of public and privately owned car parks. As a result of the economic downturn, less people working in the town centre, rising fuel prices and private car parks taking business from the Council run car parks, there was a 14% reduction in public car park usage between 2011 and 2012.

- 6.14 The Council decided to offer the first two hours free parking in their car parks. It is understood that this resulted in increased visitor numbers to local business. In addition, a one day parking charge of £1 was put in place during December to encourage Christmas shopping in the town centre.
- 6.15 Whilst these incentives are likely to have resulted in increased visitor numbers, it is less clear whether the additional revenue made in the shops made up for the loss in parking revenue. It is also important to consider how these measures could affect nearby private car parks. With less people opting to park in the more expensive private car parks, there is a risk that they could go out of business, which could risk long term parking supply.

Dundee – Park Mark Safer Parking Scheme

- 6.16 When it opened in 2013, Olympia car park in Dundee became one of the first to receive ParkMark accreditation. The ParkMark Safer Parking Scheme is a national standard for UK car parks that have low crime and measures in place to ensure the safety of people and vehicles. Essentially the car park is inspected approximately every 3 years by the Police and a member of the British Parking Association (BPA) to check that suitable measures are in place to create a safe environment. They will look at; quality management, appropriate lighting, effective surveillance and the clean environment.
- 6.17 Dundee made the most of their Park Mark status by promoting the award in the local newspaper and radio, in addition to signing on site. The ParkMark website states that car parks ranging in size from 10 to 13,000 spaces have been accredited, so any car park, large or small could apply. At present, just Aldershot Station car park is ParkMark accredited in Aldershot.

Festival Place, Basingstoke and The Lexicon, Bracknell – good aesthetics and wayfinding, car finding technology and smartphone App

- 6.18 We visited numerous car parks within other towns close by to Aldershot, where we found some good practice when it comes to car park aesthetics and wayfinding. These included Festival Place in Basingstoke and The Lexicon in Bracknell. Both towns have undergone significant regeneration programmes in the last 5 to 15 years, resulting in these shopping centres as their centre pieces.
- 6.19 Whilst many of the car parks associated with these shopping centres are new, they demonstrate good practice when it comes to being well laid out, ease of navigation, cleanliness and userfriendliness.
- 6.20 Both Festival Place and The Lexicon car parks are ParkMark accredited. Both car parks also have real-time information signing on approach to the car parks. The signing to The Lexicon was particularly innovative, with a full sign digital Advance Directional Sign showing the number of available spaces in each car park (see **Photo 1**). Both car parks also had information on the number of available spaces on each level when entering the car parks (see **Photos 2** and **3**) and whilst circulating around the car parks (see **Photos 4 and 5**).





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6.21 Both car parks also have distinctively coloured markings on the ground to denote parking bays, pedestrian safety margins and different types of bays (see **Photos 6 and 7**). Festival Place has different colour schemes for different parts of the shopping centre (see **Photos 8 and 9**), as well as vibrant lighting to give it a welcoming feel and attract to the route to the shops. Festival Place also provides bay monitoring lights, whereby a green light shows when a parking space is empty. Directional signing within the car parks is also very good, with signing on the ground 'To the shops' as well as upright signing indicating which shops can be found most easily through a specific entrance.



6.22 In the shopping centre itself, signing is also easy to follow, with signs giving directions back to the specific colour zone of the car park (see **Photo 10**). Festival Place is also in the process of implementing a new 'car finder' system (see **Photo 11**). When we visited, the system wasn't yet up and running, however, a similar system has been in operation at Heathrows Terminal 5 short stay car park for over 10 years. The system uses ANPR at specific points throughout the car park to a specific location number. The system then gives the user directions to their car.



- 6.23 Similar to the initiative implemented in Colchester, Festival Place offers evening parking of £1.50 for vehicles entering after 5pm and leaving before 2am.
- 6.24 The Lexicon produces a smartphone App which allows the visitor to check parking availability before they leave home. The App shows number of spaces free and number occupied in each car park and parking occupancy trends throughout the day. However, the live update seemed to be faulty when we tried it and this appears to be an issue in the reviews for the App. However, if the car park occupancy data were to be extracted from the real-time information data supplied to the car park signing, this could be resolved.
- 6.25 The Lexicon App also provides information on other methods of travel to the Shopping Centre, including a journey planner, details of bus and coach services, a local taxi booking call back service, details of joining 'Liftshare' (a national car sharing database) App and other travel information including cycle routes, road works etc. The App can be downloaded and viewed here: https://www.thelexiconbracknell.com/about/app.

Oslo city centre – reducing parking in the city centre

- 6.26 In 2017 Oslo began a process to remove almost all on-street parking from the City centre. The overall intention was to create a greener City by reducing pollution and freeing up space for public transport, pedestrians and cyclists.
- 6.27 In 2017 approximately 300 on-street parking spaces were removed, with the intention that 700 spaces will be removed in total on completion. The only spaces left are for deliveries to business, disabled parking and residents living in the City centre (although only 12% of residents living in the City centre actually own a car).

- 6.28 It is important to note that these changes have not been made in isolation. Extensive public realm improvements have been made, including public meeting places, event space and installation of planters to enhance the street scene and make it a more pleasant environment for pedestrians. Improvements have also been made to bus, tram and cycle infrastructure to speed up journeys.
- 6.29 However, whilst the changes sound positive, the reception from some residents and businesses has been hostile. This is perhaps to be expected given the fast change from being able to park your car to not. Some residents may not have been consulted properly and may now struggle to park their car. Some businesses may be concerned about reduced footfall as a result of removing parking outside their premises. In both cases proper consultation is key. However, with a scheme such as this it might be expected that there would be some, if not a lot of opposition.

Oxford city centre – parking restraint (pricing) in city centre combined with Park 'n' Ride

- 6.30 Oxford was the first bus park and ride in the world when it was introduced in the 1960's. It now operates 5 park and ride schemes. However, hand in hand with the park and ride, Oxford City Council has a policy of parking restraint in the city centre. Whilst on-street parking is not non-existent (as is becoming the case in Oslo), it is significantly more expensive than the cost of the park and ride, in order to discourage it.
- 6.31 The Oxford park and ride service costs around £6.80 per day (which includes parking and a return bus ride), whereas in the Westgate car park in central Oxford it would cost £11 for 5 to 6 hours and £18 for 6 to 12 hours. This of course has the double incentive of encouraging people first to use the park and ride (reducing congestion in the centre) and to stay longer in the centre, without having to worry about extortionate parking fees should they stay longer.

Tunbridge Wells – introduction of pay by phone and NFC

- 6.32 In Tunbridge Wells the Council, in partnership with 'PayByPhone', introduced Near Field Communication (NFC) to the existing pay and display ticket machines. The pay by phone cashless parking stickers on the side of the machines were embedded with securely encrypted NFC tags, which allowed users to tap their phone against the NFC tag, at which point the PayByPhone app would open up on their phone along with the unique location number. Users just had to enter the parking duration and card security number.
- 6.33 This is just one such example of how technology can make the parking process quicker and more convenient for the user. As a result of the introduction of this technology Tunbridge Wells Council were nominated at the 2013 British Parking Awards. It has also been identified that not only does this type of technology (pay by phone) make it more convenient for users, the use of pay by phone, card payment etc would eventually reduce the costs involved in cash collections by the Council.



Enterprise car club – Guildford, Woking and Winchester (....and Farnham)

- 6.34 A car club allows members to have access to a car when it is convenient to them, without the expense of owning a car. They join the 'club' and pay a monthly or annual membership fee. Once they have joined they have access to the car club cars and pay for them by the hour or day, on a pay-as-you-go basis.
- 6.35 Originally introduced in large cities, such as London, they are now more common in towns, such as Guildford, Woking and Winchester, all of which are run by Enterprise car club. There are also plans to provide some car club spaces and cars in Farnham, according to Surrey County Councils website.
- 6.36 We met with the Head of Enterprise Car Club South East Region, Tony Barnard, on 12th July 2019 to discuss the Enterprise car club process, set up costs, effectiveness in reducing car use and whether they would consider setting up in Aldershot. Mr Barnard indicated that the introduction of the car club into Farnham could be late next year and he was enthusiastic about the possible prospect of introducing in Aldershot, subject to discussions with Rushmoor Borough Council and other stakeholders / developers. Some information on the Enterprise car club is included within **Appendix K**.
- 6.37 The introduction of the car club in a new location is usually a joint venture between a developer, the Planning Authority and the car club. With Enterprise, the developer or Planning Authority would provide the parking space, signing and lining, and 1, 2 or 3 years free membership for their future residents, plus minimal driving credit to start them off (for example £10 worth). The car club would provide and maintain the vehicles and any other technology based infrastructure. Cars are fully insured and cleaned every two weeks by Enterprise.
- 6.38 The main benefits to the wider community and environment are that residents will tend to drive less and only travel by car if they have to. It also encourages more walking, cycling and public transport use. Research has found that each round trip car club car can replace 10.5 vehicles from the road and many members decide to give up their cars. Research has also found that over 31,000 privately owned vehicles have been removed from the roads as a result of car club membership (see **Appendix K**).
- 6.39 There are also many benefits for the users, including reduced costs. Enterprise state that the total costs over 12 months for a car club member is £1467.99, whilst the average car owner can incur costs of £2605.76. In addition to reduced costs, there is the benefit of less hassle in terms of maintenance, which is all carried out by the car club. They also benefit from the use of relatively new cars, which typically produce 29% less CO2 than the average car. Of course there are also health benefits, as members tend to walk, cycle and use public transport more often.
- 6.40 The car club is not exclusive to residents though and many businesses have also signed up to the car club. During our meeting with Enterprise car club, it was stated that business use is often promoted during the weekdays daytime, when not used by residents. Residents would tend to use them during the evenings and weekends.

7.0 Potential off-street parking initiatives

7.1 This section of the report takes stock of the case studies considered in **Section 6.0** and looks at which measures and initiatives could benefit Aldershot town centre's off-street parking situation. We first consider more strategic measures, before looking at potential management and operational initiatives and finally technological advances which could be adopted in Aldershot.

Strategic use of the car parks

- 7.2 One of the key aspects of a successful parking policy and strategy in a town centre is good partnership working with all of the stakeholders involved in off-street parking supply. To begin with, we would advocate that Rushmoor Borough Council work more closely with the Wellington Centre and Westgate to ensure a coordinated parking strategy and aligned aims and objectives.
- 7.3 One of the major differences between the Council run car parks, Wellington Centre and Westgate, are the tariffs. For example, the High Street multi-storey car park charges £1 for up to 2 hours and £1.50 for 3 hours, the Wellington Centre charges 60p for up to 1 hour, £1.20 for up to 2 hours and £1.50 for up to 3 hours, whereas Westgate offers free parking for up to 4 hours. In fact there are also differences in pricing structure even within the Council run car parks as well. This is understandable for some car parks, as they cater for different types of users (long stay, short stay, day time shoppers, evening etc), but there could be better pricing alignment for car parks serving the same purpose / type of users.
- 7.4 There has been some talk about the negative impact that the free parking offered by Westgate could have had on the rest of the town centre. However, it should be noted that Westgate brings business into the town centre, which may otherwise have gone elsewhere.
- 7.5 Nevertheless, it is important that Westgate, the Wellington Centre and Council run car parks operate under a coordinated strategy. This may involve offering 1 or 2 hours free parking in some other car parks, or offering joined up incentives (e.g. discounts in shops and restaurants across the town centre).
- 7.6 We would suggest that a Town Centre Transport, or Parking Working Group should be set up, which would involve key stakeholders (Rushmoor, Wellington and Westgate), traders representatives etc. Further consultation could also be made with the public as to their parking requirements, but the final decisions would rest with the Working Group. Car parking can be a very emotive issue and it is important all those involved work together in setting out a way forward. Every effort should be made to improve the parking experience and improve it's attractiveness.



Potential management and operational improvements

- 7.7 When we met with Asset Manager, Edward Mileham, from The Wellington Centre back in 2014 they had been trying new initiatives to entice customers back into the shopping centre and car park. Two traders of the Wellington Centre, Wimpy and Lidl, operated a 'parking validation scheme', whereby if a customer spent £15 in their shop, they received a £1.20 discount on their parking ticket at the till. At the time the Asset Manager was trying to encourage other shops in the Centre to take up the scheme.
- 7.8 We spoke with Edward Mileham on 24th July 2019 to discuss the current state of their initiatives and thoughts on the parking offer within Aldershot. Mr Mileham stated that the 'parking validation scheme' was not running anymore, perhaps due to a lack of take up from the other stores.
- 7.9 It may be worth pursuing discounts off parking charges if customers spend a certain amount in participating shops again. However, the scheme would have to be a taken up by all shops within the centre. Perhaps it could be worked out on a points based system, whereby customers sign up and receive a membership card which they scan at the checkout and at the ticket machine when exiting the car park. This could also be made easier and more convenient with the use of a smartphone App, specifically for the town centre, similar to the one produced for The Lexicon in Bracknell.
- 7.10 One alternative to this would be discounts or vouchers to use in shops via the Smartphone App if visitors parked during off-peak times. This, again, would require some sort of mechanism to allow them to demonstrate the time at which they parked. Perhaps a barcode on their ticket which could be scanned via the smartphone App.
- 7.11 The parking tariffs for the car parks could be adjusted to encourage off-peak parking (e.g. 10am-3pm), early bird rate for commuters (before 8am) and afternoon shoppers to linger and perhaps have a meal or go to the cinema before leaving (arrive after 2pm and depart after 7pm). A similar scheme was promoted within Colchester town centre (see **Section 6.0**).
- 7.12 Reducing parking charges, or offering free parking for the first hour, is one option to entice shoppers into the centre, similar to that which has been implemented in Middlesborough (see **Section 6.0**). However, it is understood that there is a fine balance in terms of parking pricing structure, attracting footfall and the cost of retail rent. We understand that 100% of the Wellington car park revenue goes back into the centre to support the retailers and keep rents low. It has been stated by the Assett Manager at the Wellington Centre that they couldn't afford other car parks offering free parking, as this would detract from the Wellington Centre car park further.
- 7.13 'Re-Think! Parking on the High Street: Guidance on parking in town and city centres' found that mid-range to smaller town centres that charge more than the national average have suffered a higher than average decline in footfall. According to an Independent news article entitled 'UK's most expensive and cheapest parking revealed' dated June 2018, the average cost of parking across the UK in off-street car parks is £1.10 per hour, whilst the average cost of parking on-street is £1.65 per hour.

- 7.14 Looking at the tariffs for all of the town centre car parks, they are all lower than the national average (Princes Gardens is 80p per hour, High Street MSCP, Cross Street, Co-Op and Birchett Road are £1 per two hours, and Wellington Centre is 60p per hour). So it is clear that the Aldershot car parks are not overcharging.
- 7.15 Another way of inticing customers into the town centre would be to implement a small number of free short-stay (e.g. 30mins maximum stay), or reduced price short-stay bays (e.g. 20p for 30mins) to entice more people into the car park. Dorking offer a limited number of parking spaces as 30 minutes free in a select number strategically located car parks. Also, Queensmead car park in Farnborough has a limited number of 30 minutes max stay for a reduced price (50p), which seems to work well in attracting customers into the car park.
- 7.16 As mentioned previously, whatever incentives are taken forward (whether it be shopping discounts or free or reduced price parking bays), it is important to consult with all the affected stakeholders. This would include The Wellington Centre and Westgate, who could be adversely affected by these measures if not properly consulted upon.
- 7.17 As stated previously, in **Section 6.0**, Aldershot Station car park is the only car park in Aldershot which is ParkMark accredited. Farnborough Meads, Farnborough Railway Station and Camberley Atrium car parks are other examples which are accredited nearby. As mentioned previously, ParkMark Safer Parking Scheme sets a standard of low crime and measures to ensure the safety of people and vehicles in the car park.
- 7.18 We would suggest that some of the larger car parks in the town centre could apply for ParkMark accreditation, which would give customers further confidence to park in them. However, ParkMark isn't necessarily limited to larger car parks – the smallest with accreditation is a 10 space car park.
- 7.19 The owner of the car park would need to keep a record of customer complaints, staff training and evacuation procedures. Items that would be taken into consideration include lighting, barrier systems, payment machines, surveillance, lifts and stairwells, maintenance, traffic circulation, parking bays, pedestrian access and exit routes, direction signs, boundaries, landscaping and staff presence.
- 7.20 In a similar vein to the ParkMark accreditation and safety within the car parks, it is important that due consideration of wheelchair users has been given, in terms of whether they can use the ticket machines, accessibility to the car parks, dropped kerbs adjacent to parking spaces etc.
- 7.21 Disabled Motoring UK administer the Disabled Parking Accreditation scheme, which has a database of recommended car parks for disabled motorists, based on the quality of the facilities that they have. The only car park in Aldershot which is accredited again is the Station car park. Again, similarly to ParkMark, The Meads and Atrium car parks are also DPA accredited.

7.22 The first step to achieving ParkMark and DPA accreditation would be to meet with the British Parking Association (BPA) Area Manager, who carry out the assessments for both. They would go through the criteria and offer further advice and guidance on how to make the car parks safer and more accessible. The current BPA Area Managers can be found and contact at the following website https://www.britishparking.co.uk/Area-Managers.

Technological improvements to parking infrastructure

- 7.23 Real-time parking information, as used in Nottingham, Basingstoke and Bracknell, is useful for making the parking experience quicker and easier. As Aldershot expands with the Wellesley development and town centre regeneration, parking will become more limited and the process of directing customers to a space will need to be better managed.
- 7.24 There are three stages of signing; the first to the most appropriate car park, the second to the most convenient and least busy area, zone or level of the car park and the third to the vacant spaces. The first two stages usually display the number of spaces available on a live display sign. The third phase usually involves displaying a green light above a vacant space, which allows drivers to identify it from the end of the car park aisle.
- 7.25 The use of a Smartphone App to record and log discounts or incentives has already been mentioned. However, the application of a smartphone App could also extend to show capacity in the various car parks live, via a real-time information system, such as the one already setup for the Lexicon, Bracknell.
- 7.26 The smartphone App could be expanded further to allow booking of parking spaces in advance and provide directions to the car park. Of course beyond the functions improving car park convenience and ease of use, the Lexicon App also allows customers to book local taxis and sign in to 'Liftshare', as well as view other public transport services. As Aldershot expands, the introduction of this sort of technology would certainly help fulfil the developments Travel Planning commitments and encourage alternative modes of transport.
- 7.27 As mentioned previously, The Wellington Centre already operate an Automatic Number Plate Recognition, pay on foot payment system, similar to the system trialled in Maidenhead. Whilst there have been teething problems with the technology in the past, this seems to be improving.
- 7.28 From our experience, ANPR technology is usually installed in relatively large multi-storey car parks. However, in theory there is nothing preventing it from being implemented in smaller surface car parks. The one limiting factor is that it would have to be cost effective. Enough space would have to be provided to allow the ANPR infrastructure (cameras etc) to be installed, along with suitable measures to bring vehicle speeds low enough for the registration numbers to be read.
- 7.29 We would suggest that the new 250 space Galleries car park installs the technology in the first instance. Further car parks could then be considered, taking into consideration the cost effectiveness of installing the technology.

- 7.30 Whilst cost effectiveness is an important consideration, there are a number of benefits, which need to be taken into consideration. The whole process can be ticketless, which means savings on paper cost and replenishing. There are also benefits over traditional pay and display methods, in terms of the cost of enforcement. If a parking fee isn't paid, a Parking Charge Notice can be sent remotely through the post. Another benefit over pay and display is that customers don't feel that they have to rush back to their cars to leave, so they are likely to stay in the centre longer.
- 7.31 Electric vehicles are becoming more common place and the infrastructure to allow them to be used effectively needs to keep up. Quite frequently those with electic vehicles struggle to find a charging point, when the range in their vehicle is limited. The Car and Cycle Parking Standards as part of Rushmoors Local Plan (November 2017) emphasises the need to consider electric vehicle charging infrastructure in new developments, but does not specify how many would be required. It is stated that *"A supplementary note on charging facilities for electric vehicles will be published by the Council as and when the Government provides more definitive guidance"*.
- 7.32 However, despite the lack of definitive guidance by central Government, many other Authorities specify a minimum requirement in new developments. The London Plan states that *"developments in all parts of London must ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles"*. Active are those charge points that can be used straight away and passive means that the infrastructure is in place so that charge points can be installed quickly in the future.
- 7.33 Surrey County Council's Parking Standards state that, for new residential flats, 20% of available spaces should be fitted with a fast charge socket (7kw Mode 3 with Type 2 connector *) and a further 20% provided with the power supply to provide additional fast charge sockets. For new commercial developments, SCC's standards specify that 10% of available spaces should be fitted with a fast charge socket and a further 10% provided with the power supply for future proofing. Basingstoke and Deanes Parking Standards also specify a requirement for residential developments, but a lower rate at 1 charge point per 30 spaces.
- 7.34 We are aware that Morrisons (Westgate) car park provides 4 No. 7kw 32A Type 2 Mennekes charge points. This would be a rate of less than 1% of the total parking spaces.
- 7.35 Given the large investment in electric vehicles since many of the above parking standards were written and since Westgate was opened, the take up of electric vehicles is likely to increase significantly. Therefore, we would advise that a suitable number of EV charging points are installed in the new Galleries car park, perhaps up to 10% passive and 10% active. As regard to existing car parks, between two to four charging points could be installed initially and usage monitored thereafter.

* The 7kw charger will cater for a vehicle to be charged overnight. This is ideal for domestic use. Public chargers in car parks need to be provided with at least 25-50kw charger, to be effective for short stay.

8.0 Potential on-street parking initiatives in Aldershot

8.1 This section of the report takes stock of the case studies considered in **Section 6.0** and looks at which measures and initiatives could benefit Aldershot town centre's on-street parking situation. We first consider more strategic measures, before looking at potential management and operational initiatives and finally, technological advances which could be adopted in Aldershot.

Strategic outlook of on-street parking (e.g. scope for removing)

- 8.2 It should first be noted that we identified a large variety in the type of restrictions in the town centre. There are currently seven different types of Pay & Display restrictions and five different types of Permit Holder restrictions. It is not understood whether these restrictions were implemented as a coordinated scheme, or in piecemeal fashion over the years. Either way, such variety can make it difficult to carry out enforcement and could be confusing for visitor parking. A consolidation exercise may be beneficial to simplify the restrictions and make it easier for both user and enforcement officer.
- 8.3 Another option, from a strategic point of view, would be reducing parking space on-street to encourage use of the car parks and free up space on-street for pedestrians and cyclists. The case study of Oslo city centre (see **Section 6.0**), whilst on a much larger scale for a global city, saw benefits in terms of improvements to the public realm and improvements to the pedestrian or cyclist environment by handing over on-street parking spaces to pedestrians or cyclists.
- 8.4 Roads which could benefit from removing on-street parking could include Victoria Way (which already restricts vehicles from entering between 7am and 6pm, except buses, taxis and goods vehicles between Heathland St and Gordon Road), Grosvenor Road (between Barrack Road and Victoria Road), Station Road (between Victoria Road and the High Street) and perhaps the High Street (between Princes Way and Station Road). There are proposals (which were given the go ahead in January 2019) to improve access to Aldershot Railway Station, including cyclist access, so perhaps these measures could help cyclist access to the Station.
- 8.5 The reduction in on-street parking doesn't have to be complete, it could just be in sections, or perhaps only on one side of the road (the town centre side). The idea would be that the removal of some of the on-street parking spaces would allow wider footway space to be provided, or dedicated cycle lanes, or a mixture of both. Planters, benches and cycle racks could be installed to improve the street scene and the overall experience for visitors. Of course, careful consideration would need to be given towards goods deliveries and disabled users requirements.
- 8.6 Having said the above, such a scheme may prove controversial and the idea would have to be carefully put across to all affected stakeholders, including individual businesses and local residents. A full consultation would need to be undertaken to ensure that they felt part of the process.



Potential management and operational improvements

- 8.7 It has been noted that the Council has recently upgraded their on-street payment machines. Previously customers could only pay by cash and were not given change. Customers are now able to pay by chip and pin and contactless card payment, in addition to cash. This is obviously a good step forward and it is important that alternative payment options should be available for all to make it easier and more convenient to park.
- 8.8 Crimea and Sebastopol Roads are currently unrestricted, despite being in what is considered to be the town centre. Due to the primarily residential usage of the road, we would suggest that 'Permit Holder' parking could be considered. However, due to the road's proximity to the town centre, dual-use 'Permit Holders' and 'Pay & Display' parking could be considered, if not for the whole length of the roads, for sections of bays closest to the town centre.
- 8.9 As mentioned previously (see **Section 6.0**), we met with the Head of Enterprise Car Club South East Region, Tony Barnard, on 12th July 2019. Enterprise have recently set up car clubs in Woking, Guildford and Winchester, with plans to introduce it in Farnham next year. Mr Barnard was very open to introducing a car club in Aldershot, especially in light of the current and future development and regeneration works.
- 8.10 There are many benefits to adopting a car club in the town, as set out in **Section 6.0**. Car club spaces should be visible and accessible, so it is best to have them on-street, rather than hidden away in a car park. We would suggest that a few cars and spaces are introduced initially, perhaps along the High Street and Victoria Road.
- 8.11 The first car club spaces may be a joint venture between a developer and Enterprise, overseen by Rushmoor Borough Council, so it is important that all parties are involved in discussions and meetings at an early stage. As explained previously, the developer would usually be responsible for implementing the lining and signing on-street, whilst the car club would provide the car.
- 8.12 We would suggest that in the first instance Rushmoor Borough Council Regeneration and Planning Team could meet with Enterprise to discuss the options. As mentioned previously, the car club could also benefit local businesses during the day, so it may be worth contacting some of the larger businesses based in the town.
- 8.13 As mentioned for the car park initiatives in **Section 6.0**, consideration of wheelchair and other disabled users is an important consideration. As mentioned previously, the on-street pay and display ticket machines have recently been upgraded, so these should conform to disabled user requirements. However, it may be worth consulting with the BPA Area Manager on these if and when the Council meets with them to discuss the car parks ParkMark and DPA accreditation.

8.14 Finally, from a management and operational point of view, it is important to instil appropriate on-street enforcement. Whilst we have not investigated the parking enforcement carried out by Rushmoor Borough Council, we would advocate there is not disproportionate enforcement for minor parking infringements, such as occupying a space for a couple of minutes over the allotted time. A heavy enforcement regime can be an easy way of turning customers away.

Technological improvements to parking infrastructure (e.g. pay by phone)

- 8.15 It was previously noted that the Council have introduced new on-street payment machines which allow for card payment, making it more convenient for the customer. However, we would suggest that the Council consider introducing pay by phone (RingGo, PayByPhone or ParkMobile) for all on-street pay & display machines, in addition to card and cash payment.
- 8.16 The benefit is that customers can pay quickly, get a reminder when their parking session is about to expire and don't feel pressured to rush back to their cars. Pay by phone could also be introduced relatively easily into the existing pay and display car parks. The Council could also consider utilising Near Field Communication (NFC) technology to make payment faster and easier, as set out in the Tunbridge Wells case study (see **Section 6.0**).
- 8.17 Finally, we have mentioned the installation of rapid (25-50kw) electric vehicle charging points in some of the car parks (see **Section 7.0**). There may also be benefits to installing EV charging points on-street in strategic locations, such as popular cafes or restaurants. Whilst a specific number would be difficult to give, it may be worth consulting with popular cafés or restaurants in locations where customers could stop for an hour or two and recharge their batteries.

9.0 Possible sustainable transport initiatives to ease parking demand / change the nature of parking

9.1 This section of the report outlines the existing and proposed public transport services, considers walking and cycling opportunities and investigates future mobility technologies and how they can be integrated into existing parking infrastructure.

Existing public transport use

- 9.2 Aldershot is very well served by public transport, with a mainline railway station towards the south-eastern side of the town centre. The railway station provides twice hourly services to London Waterloo, Alton, Guildford, Ascot and Farnham. There are also many bus services providing multiple buses to surrounding towns including Farnborough, Camberley, Fleet, Farnham and Guildford.
- 9.3 The majority of the bus services are operated by Stagecoach and the following services enter the town centre:
 - Service 1 (Gold Route) provides a 10 minute daily service between Camberley, Frimley, Farnborough and Aldershot Bus Station;
 - **Service 3** provides a 15 minute daily service between Yateley, Derby Green, The Meadows, Camberley, Frimley, Ash Vale and Aldershot Bus Station;
 - Service 4 and 5 provides a 20 minute daily service between Farnham, Upper Hale and Aldershot Bus Station;
 - Service 7 provides an hourly service between Elvetham Heath, Fleet, Church Crookham and Aldershot Bus Station;
 - Service 14 provides a 20 minute daily circular service between Aldershot High Street, North Town and back to Aldershot (Bus Station);
 - Service 15 provides a 15 minute daily circular service between Aldershot Wellington Centre, Badshot Lea and back to Aldershot (Bus Station);
 - Service 16 provides a two-hourly daily service between Rowledge, Wrecclesham, Farnham, Badshot Lea and Aldershot Bus Station;
 - Service 17, 18 and 19 provides a 20 minute service between Haslemere, Hindhead, Bordon, Wrecclesham, Farnham and Aldershot Bus Station;
 - **Kite** provides a 15 minute daily service between Guildford, Normandy, Ash, Tongham and Aldershot Bus Station.
- 9.4 An existing bus routes map is included within **Appendix L**.
- 9.5 We have been provided year on year comparison results of bus patronage from between April 2016 and March 2021 (see **Table 9.1** below), from Stagecoach. It is assumed that the first few year's results are based on real world data and the last two years are forecasted. This appears to show that changes in bus patronage year on year has fluctuated between -1.78% and

+1.86% over the past few years, and Stragecoach are expecting increases in patronage of 2% per year, over the next two years.

	Table 9.1 – Stagecoach fear on fear comparison														
April 2015 -	April 2015 -	April 2015 -	April 2015 -	April 2015 -	April 2015 -										
March 2016	March 2016	March 2016	March 2016	March 2016	March 2016										
	1.86%	1.86%	1.86%	1.86%	1.86%										

Table 9.1 – Stagecoach Year on Year comparison

9.6 We have obtained data on Aldershot Railway Station patronage over the past 5 years from the Government's 'Office of Rail and Road' and these are presented in **Table 9.1** below:

Year	Entries & exits (per year)
2013 / 2014	1,401,204
2014 / 2015	1,434,250
2015 / 2016	(1,465,000)*
2016 / 2017	1,437,614
2017 / 2018	1,394,786

* Based on figures provided on Wikipedia

9.7 As can be seen from **Table 9.2**, patronage rose over the first couple of years, but reduced over the following three years. In total, rail patronage has fallen by 0.46%. Broadly, rail patronage has stayed roughly the same over the past 5 years, albeit with small fluctuations.

Anticipated future public transport use

- 9.8 The Wellesley development is expected to significantly increase bus usage and a detailed 'Public Transport Strategy' was published in December 2012. The plan is to utilise the existing No. 1 bus service (Gold Route), as the core bus service and extend the existing No. 15 service, as a Secondary School service.
- 9.9 Both bus services will increasingly percolate the site as it is built out. The frequency of the Gold Route will be increased and a new contracted double decker and mini-bus will be provided as part of the No. 15 services. In addition, new fully sheltered bus stops, with real-time information, will be provided throughout the Wellesley development
- 9.10 It is stated in the 'Public Transport Strategy' that the Gold Route service will have a new 30 minute service from 2018/19 to 2019/20 and a new 20 minute service from 2020/21 onwards. The route already has a 10-minute daily service, so it is unclear what the final frequency will be.
- 9.11 Significant improvements are proposed to the road network around the forecourt of the Railway Station, which are planned to start in late Summer / early Autumn 2019. Many improvements have already been carried out to the Station internally in recent years, including a new internal overbridge and DDA compliant lifts and new ticket machines.



- 9.12 The improvements to the road network around the forecourt of the Railway Station, which were approved in January 2019 include:
 - Converting the Station Road / Arthur Street 'teardrop' roundabout to a priority junction, allowing two-way traffic movements;
 - Installing a Tiger crossing just west of the railway station access. This will give cyclists using the off-road cycle route priority over vehicular traffic;
 - The southern section of Arthur Street will become two-way from Station Road to its junction with Windsor Way;
 - Windsor Way from the Victoria Road junction to Arthur Street will become two-way;
 - There will be a new cycle route from the A323 to Aldershot railway station. The route will be on-road from the A323 through to Pickford Street.
- 9.13 The existing bus station will be removed, which is where the 32-unit Railway Station development outlined in **Section 5.0** will go. It is stated on the Rushmoor Borough Council webpage outlining the Station improvements that the bus station will be relocated into the town centre. This, it is said, will help to reduce traffic congestion around the railway station, caused by unnecessary bus movements.
- 9.14 A 'Consultation Proposal' plan showing the proposed 'Access to Aldershot Railway Station' improvements can be found in **Appendix M**.

Walking and cycling opportunities

- 9.15 It can be seen from **Figures 3.23 and 3.24** in **Section 3.0** of this report that existing cycle parking spaces in the Princes Gardens, High Street multi-storey and Station car parks are well under-utilised at present. It is noted that the existing High Street multi-storey car park will be removed and the new Galleries / Arcades development will contain 845 residential cycle parking spaces and 15 commercial cycle parking spaces.
- 9.16 Schemes such as ParkMark Safer Parking Scheme could go someway to encouraging greater use of the cycle parking facilities, but there are additional things which can be done. In November 2016 Woking opened a new Cycle Hub at the railway station, aimed at encouraging commuters to cycle to work. The hub cost around £475,000 and included 216 cycle parking spaces under a fully enclosed shelter, with 24/7 CCTV. The scheme also included a Bike Repair Station, with a multitude of bike tools for all to use and a robust Air Kit 3 Bike Pump.
- 9.17 The London Borough of Enfield also installed a Cycle Hub at its railway stations in 2018. They contain similar features to the Cycle Hub introduced at Woking railway station, but are exclusive to members. Members pay a fee of £25 for the first year. Many Cycle Hubs are located close to bicycle shops and offer cycle hire schemes as well, but these tend to be better suited to larger towns and cities.



- 9.18 We would suggest that a Cycle Hub, similar to the one introduced at Woking, could be considered for Aldershot. It doesn't have to be of the same size, but could be sheltered, provide CCTV and basic maintenance and repair equipment. This, in tandem with the cycle improvements associated with the Station, will help encourage cycling to the Station by commuters.
- 9.19 In addition to the Station cycle and pedestrian improvements, there were a number of schemes put forward as part of the Aldershot Town Access Plan, published in April 2012. These included:
 - Wayfinder strategy the existing pedestrian wayfinding signs were upgraded around 2013/14, but more could be done. Monolith style signs (such as those used in London and also at the Lexicon in Bracknell) could be installed at major intersections and also at the exit from the Railway Station. These contain detailed maps of the town and key attractions, and public transport information specific to that location;
 - **Barrack Road pedestrian priority** following the construction of Westgate Barrack Road was reduced in width and the footways widened. These works were installed and included a new Zebra crossing at the northern end of Barrack Road;
 - Zebra crossing on Grosvenor Road (between Victoria Road and Birchett Road) this appears not to have been implemented and the pedestrian refuge islands remain in place;
 - Cycle ramp on rail bridge stairs cycle wheel ramps have not been installed on the existing steps up to the overbridge over the railway, which could easily be installed at relatively low cost. It is estimated £20,000;
 - **Pedestrian crossing on Windsor Way** as part of the 'Access to Aldershot Railway Station' improvements, a Zebra crossing is proposed on Windsor Way just south of Victoria Road and a pedestrian refuge island is proposed east of Arthur Street;
- 9.20 Potential new cycle routes mentioned in the Aldershot Town Access Plan (2012), but not yet implemented include:
 - Victoria Road between Grosvenor Road and A323 there is plenty of width, given that the road is one-way, but the design would have to be carefully considered looking at contra-flow. This would include converting an existing Puffin crossing to a Toucan across the A323;
 - Railway Station, Gun Hill and Wellesley it was intended to provide access to the railway station from Wellesley, via Station Road. However, the approved Station Access improvements propose a cycle route along Pickford Street and Arthur Street;
 - **Birchett Road and Municipal Gardens** would be mainly on-road and would have to be advisory only due to restricted width east of Frederick Street. Could be off-road through Municipal Gardens;



- Town Centre, Hospital Hill and Wellesley there are currently on-road cycleways along Hospital Hill and improvements could be made to Princes Way and Grosvenor Road, linking up to Victoria Road, to better accommodate cyclists. Alternatively, cyclists could be directed across Princes Gardens and along Short Street and Cross Street;
- Gordon Road and Wellington Street would be largely on-street along Gordon Road and potentially conflicts with pedestrians on Wellington Street. Would require removal of some on-street parking to provide adequate width for cyclists;
- 9.21 We particularly think that the Victoria Road, Gun Hill, Hospital Hill, Princes Gardens and Short Street cycle routes are feasible and should be considered by Rushmoor Borough Council to further encourage cycling into the town centre.
- 9.22 During our discussion with the Asset Manager from the Wellington Centre on 24th July 2019, he noted the poor accessibility from Westgate via Union Street to the Wellington Centre. There are crossing points (two Zebra crossings across Barrack Road and an uncontrolled crossing across Grosvenor Road), but pedestrians still have to cross two roads to get onto Union Street and the wider town centre.
- 9.23 More could be done to ease pedestrian accessibility between Westgate and the main town centre area (including Wellington Centre and the proposed regeneration area). Short of stopping up one of the roads (which could have implications for deliveries), priority could be given to pedestrians on Grosvenor Road by introducing an extra wide Zebra crossing, perhaps on a raised road table. A raised road table could also be considered at the Zebra crossing across Barrack Road, to highlight the priority of pedestrians.

Changing use of the car

- 9.24 We have already mentioned the use of car clubs, infrastructure requirements for electric vehicles and briefly touched on car sharing platform 'Liftshare'. We would strongly recommend consideration of a smartphone App to help bring these alternative travel options together and make it easier for people to come into Aldershot.
- 9.25 A further extension of this, for those who don't have a car, or do, but would prefer not to drive on occasions, is Mobility as a Service (MaaS). MaaS aims for a shift away from personally owned vehicles towards publicly available transportation services. This may include traditional public transport, car club, car sharing, peer-to-peer ridesharing (e.g. Uber), bike-sharing etc.
- 9.26 The concept is still in its infancy, but was rolled out fully in Helsinki, Finland in 2017, using an App called 'Whim'. Whim allows you to plan a route and book any form of public transport, bicycle hire, taxi or car hire, directly from the App. Members can sign up to various monthly payment plans (up to unlimited travel on all forms of transport, but at a cost of €499 per month), as well as pay as you go. Whim is also trying to break into the market in Birmingham and has signed up various companies including, Enterprise, Sixt and National Express West Midlands, to allow customers to book them through the App.

- 9.27 The concept sounds promising and if successful, could result in a large reduction in private vehicles on the road. However, a number of companies offering alternative mobility solutions (e.g. Stagecoach, Enterprise etc) would have to sign up to the App and, in the interest of competitiveness, it is likely to result in different MaaS Apps operating in different towns and cities, which may make it difficult to travel between certain towns and cities.
- 9.28 Connected and Autonomous Vehicles (CAV's) are also a topic of great interest at the moment and many Authorities and private owners are wondering what they can do to 'future proof' their assets and infrastructure. There is no doubt that CAV's could have an important part to play in MaaS, as it could reduce running costs and increase efficiency. With the integration of Autonomous Vehicles with Mobility as a Service, there is likely to be less need for a parking space, as vehicles will be almost constantly on the move.
- 9.29 However, in the short term, it is important to consider what improvements can be made to existing parking infrastructure. To begin with, the use of intelligent transport systems is a step in the right direction, in terms of implementing the digital infrastructure required to feed into CAV's. This includes real-time information on parking space availability, ANPR for payment purposes and the specific location of available parking spaces. Again, the use of a smartphone App to plan and pay for journeys would be useful, not only for ease of use by the customer, but also for data analytics purposes.

Likely impact on parking requirements of sustainable transport initiatives

- 9.30 The future parking demand outlined in **Section 5.0** assumes that no sustainable transport initiatives will be put forward. However, the Wellesley development has done and is in the process of implementing their Public Transport Strategy and Travel Plan. The developers associated with the town centre regeneration will also be expected to produce a Travel Plan.
- 9.31 It is difficult to estimate how much these sustainable transport initiatives could reduce the estimated parking demand outlined in **Section 5.0**. To begin with, as stated previously, the growth rate is viewed as a worst case scenario, considering the lack in local traffic growth over the previous 5 years. We have no doubt that with new residents, given the right incentives they can be encouraged to change their travel habits.
- 9.32 The new and improved (more frequent) bus services and access improvements to the railway station should go a long way to encouraging residents and commuters to use sustainable modes over the private car. The implementation of a car club could also help those new residents to consider alternative options to owning a car (or certainly postponing the purchase of a second car). As mentioned, each round-trip car club car has the potential to replace 10.5 vehicles from the road.
- 9.33 Smaller and less expensive measures, such as cycle route and pedestrian route improvements can also create a more pleasant environment for vulnerable road users and encourage less car use. However, the implementation of any measures should be weighed up against the actual demand for such measures, i.e. how many cyclists or pedestrians actually use that route, or are predicted to in the future.

10.0 Conclusions and Recommendations

- 10.1 Patrick Parsons was commissioned by Rushmoor Borough Council (RBC) to undertake a detailed Parking Study within Aldershot Town Centre. A similar study was carried out in 2013/14, which included the town centre, residential permit holders zone to the south and further roads to the south which are currently unrestricted, and in 2017, which just included the town centre.
- 10.2 The main purpose of this study is to determine the cumulative occupancy of the parking stock in Aldershot town centre. This will form a baseline from which future scenarios will be considered.
- 10.3 Comprehensive and detailed on- and off-street parking surveys were carried out for the area shown in **Appendix A** on Tuesday 11th June and Saturday 15th June 2019. These surveys recorded the incoming and outgoing movements for the car parks and duration of stay and volume for the on-street parking areas, as well as the type of bay in or restriction on which they were parked.
- 10.4 In summary, our analysis of the survey results found the following:
 - The overall parking occupancy peaked at between 11am and 12 noon during the Tuesday survey;
 - On-street parking was slightly busier overall on the Saturday survey day. It was consistently busy throughout the afternoon, with a slight peak at between 4pm and 5pm;
 - The vast majority of visitors to the town centre who parked on-street stayed for up to or just over 1 hour on both the Tuesday and Saturday, with a higher proportion of short stay visitors on the Saturday;
 - The outer lying roads of Alexandra Road, Barrack Road, Birchett Road, Heathland Street, Victoria Road eastern end, Crimea Road, Sebastopol Road and Pickford Street had the longest duration of stay and, hence, least turnover. Peak duration of stay in these roads was around 6 to 10 hours or more;
 - Roads closer into the town centre, Victoria Road and High Street, tended to have a duration of stay of between 1 to 3 hours and, consequently, a higher rate of turnover.
- 10.5 Following this we compared the 2019 survey results to the 2014 and 2017 survey results. Overall, the surveys show that there has been a decrease in the number of people using offstreet parking and an increase in the usage of on-street parking. The apparent switch between off-street parking to on-street parking could be related to the increase in short stay parkers on-street as well. It could be that shoppers want to spend less time in Aldershot; just pop-in and pop-out, rather than taking their time to shop, eat, drink or engage in leisure activities.

- 10.6 Next we considered future parking demand which *could* be imposed on the town centre, where we looked at historic traffic trends, traffic growth, emerging development proposals and potential demographic changes, before considering the combined effect and applying it to the parking surveys.
- 10.7 The forecasted off-street (car park) results, shown in **Appendix H**, show that on the whole, there will still be capacity within the town centre car parks to accommodate the forecasted growth and anticipated development by 2024. It is important to remember that if a car park exceeds its capacity, parkers will move on to another car park. The 250 space Galleries car park is likely to be very busy at times, but the Wellington Centre car park should be promoted as a suitable alternative and is likely to be used by displaced vehicles from other central car parks.
- 10.8 The forecasted on-street results, shown in **Appendix J**, show that many of the roads in the town centre will exceed capacity. Of course some of the roads are already close to, or exceeding capacity and this assumes that parking demand will increase in line with predicted traffic growth, which is considered a worst case scenario. Similar to those car parks which are shown to exceed capacity at certain times of the day, those drivers visiting the town centre, but unable to park in one of the streets exceeding capacity will either park in a street which does have spare capacity, or in a nearby car park.
- 10.9 In the following sections (Sections 6.0, 7.0, 8.0 and 9.0) outline good practice case studies, potential on- and off-street initiatives and possible sustainable transport initiatives. As a result of the surveys undertaken and our subsequent research, we would make the following recommendations:
 - Set up a **Town Centre Transport, or Parking Working Group**, involving key stakeholders, traders representatives etc;
 - Visit Festival Place in Basingstoke and The Lexicon in Bracknell. The whole parking experience is important and people like to feel safe, with good lighting and wider spaces. All cars, even small have increased in size due to the adoption of NCAP driver safety features;
 - We would suggest that a Smartphone App is produced, specifically for the town centre, similar to the one produced for The Lexicon. This could show the capacity of town centre car parks live, allow booking of parking spaces in advance, provide directions, allow booking of local taxis, Car Club cars and sign up to 'Liftshare' and include discount vouchers to use in shops;
 - Arrange a meeting with the British Parking Association Area Manager to discuss and apply for **ParkMark Safer Parking** and **Disabled Parking Accreditation** schemes;
 - We would suggest that Rushmoor Borough Council Regeneration and Planning Team could meet with **Enterprise Car Club** to discuss options;



- We would advise that a suitable number of **Electric Vehicle charging points** are installed in the new Galleries car park, perhaps 10% passive and 10% active. Existing car parks could install between 2 to 4 in the first instance and usage monitored thereafter;
- As Aldershot expands with the Wellesley development and town centre regeneration, consider introducing **real-time parking information**;
- We would suggest that the new 250 space Galleries car park installs **ANPR technology** in the first instance. Further car parks can then be considered;
- Consider introducing **pay by phone** (RingGo, PayByPhone or ParkMobile) for all onstreet pay and display machines;
- Consider **adjusting parking tariffs to encourage off-peak parking**, early bird rate for commuters and afternoon shoppers to stay until the evening;
- Consider offering reduced price short stay in some car parks (e.g. 20p for 30 mins);
- Consider **reducing parking space on-street** to encourage use of the car parks and free up space on-street for pedestrians, cyclists and make public realm improvements;
- We would suggest that a **Cycle Hub**, similar to the one introduced at Woking, could be considered for Aldershot;
- **Monolith style signs** could be installed at major intersections and also at the exit from the Railway Station, containing detailed maps, key attractions and public transport information;
- The Victoria Road, Gun Hill, Hospital Hill, Princes Gardens and Short Street cycle routes are feasible and should be considered by Rushmoor Borough Council to further encourage cycling into the town centre;
- Priority could be given to pedestrians on Grosvenor Road by introducing a Zebra crossing, **improving links between Westgate and the town centre**.



11.0 References

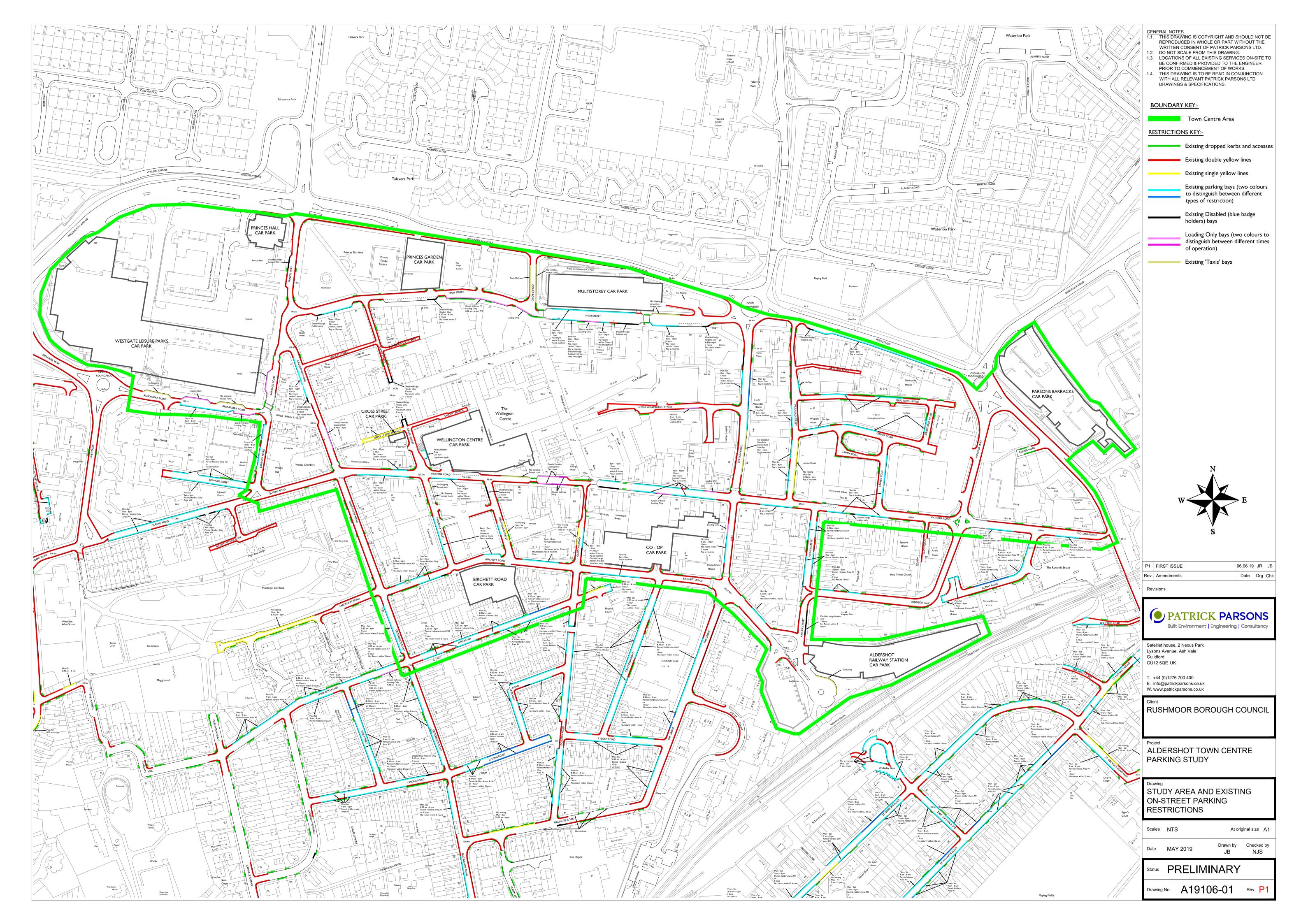
- 1. <u>https://www.britishparking.co.uk/write/Documents/Re-thinking_Car_Parking.pdf</u>
- 2. https://thegreatbritishhighstreet.co.uk/pdf/GBHS-What-Works.pdf
- 3. http://www.parkmark.co.uk/
- 4. https://www.disabledmotoring.org/
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- 6. https://www.thelexiconbracknell.com/get-here/parking
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- 27. <u>https://www2.deloitte.com/content/dam/Deloitte/nl/Documents/consumer-business/deloitte-nl-cb-ths-rise-of-mobility-as-a-service.pdf</u>
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- 30. <u>https://s3-eu-west-1.amazonaws.com/media.ts.catapult/wp-</u> <u>content/uploads/2017/04/25115313/ATS40-Future-Proofing-Infrastructure-for-CAVs.pdf</u>



Appendix A

Study area and existing restrictions plan

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Appendix B

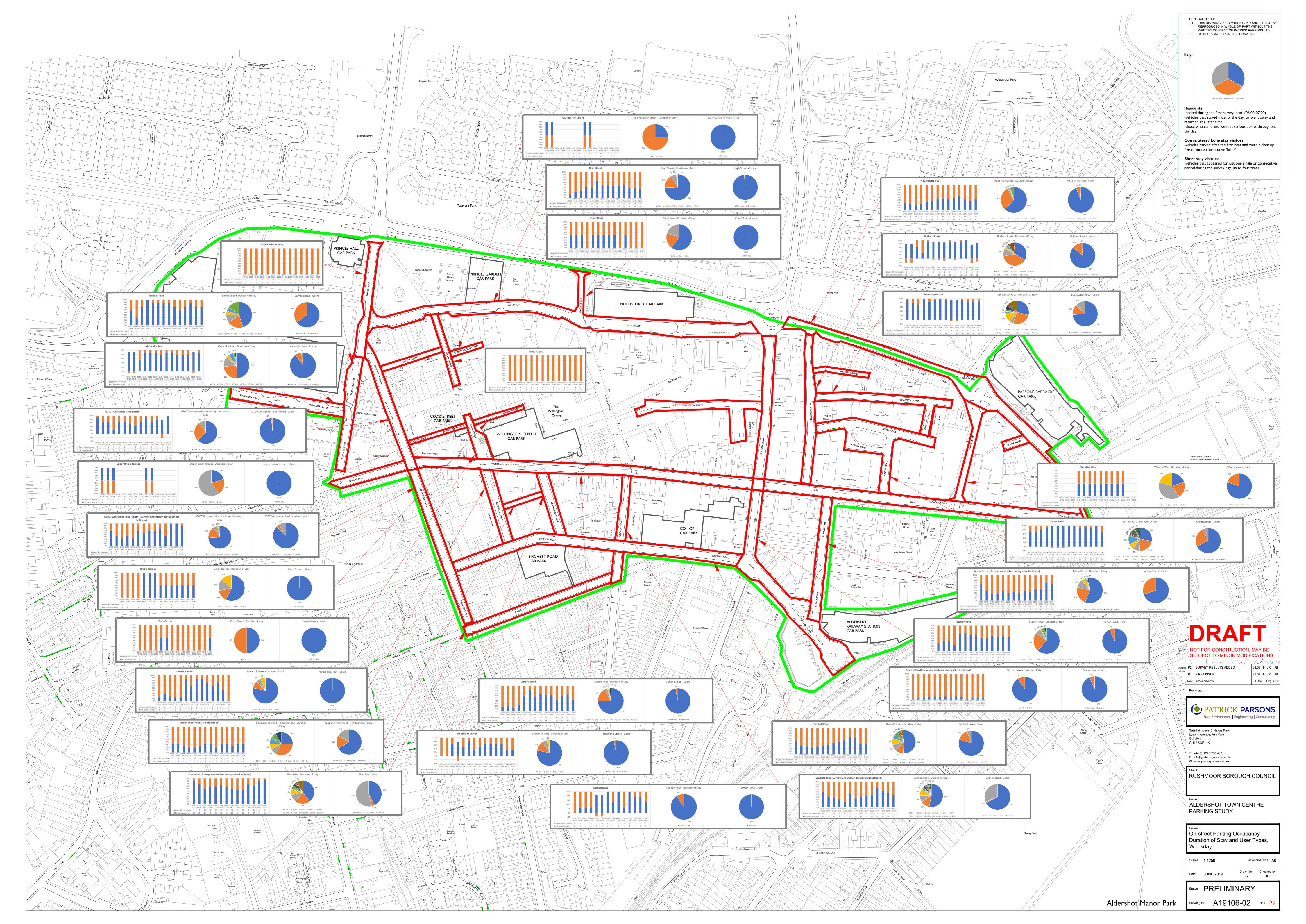
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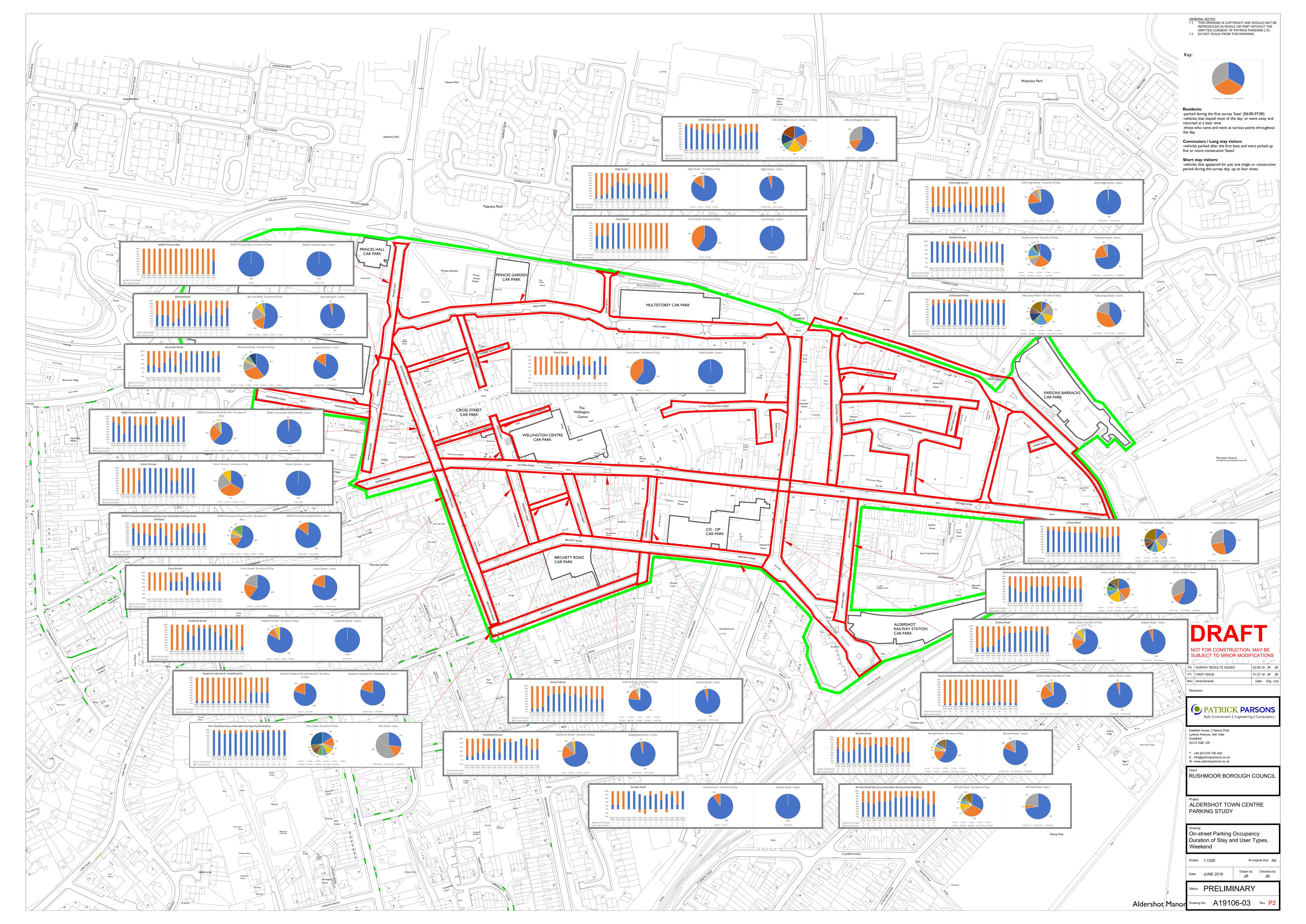
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Appendix C

2019 on-street duration of stay pie charts & capacity bar chart plans





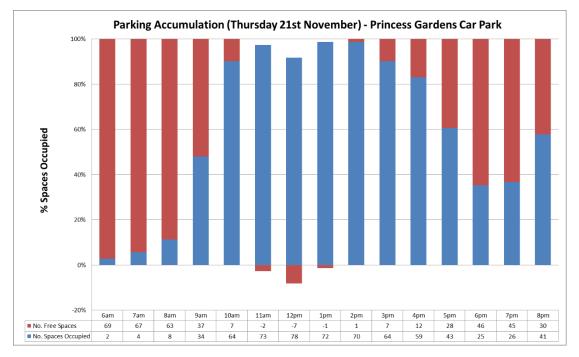


Appendix D

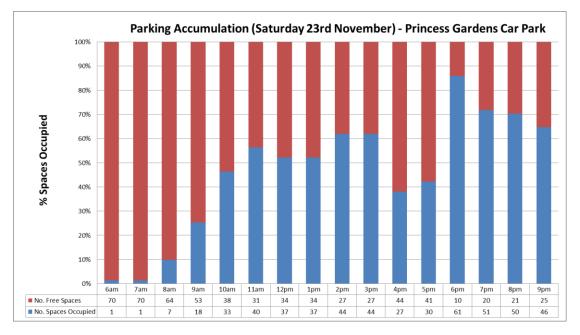
2014 off-street capacity bar charts

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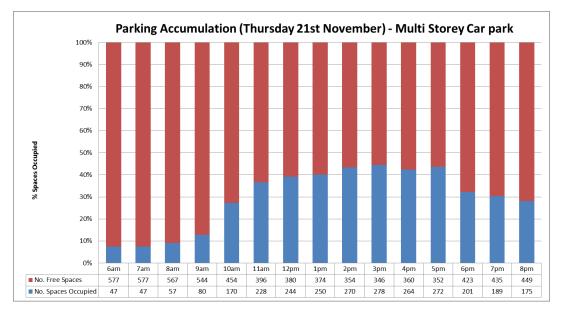
2014 off-street parking survey results



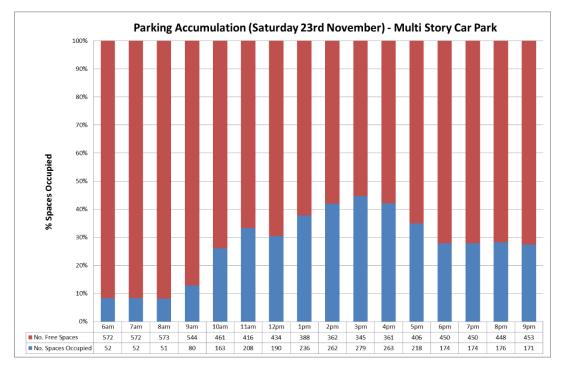
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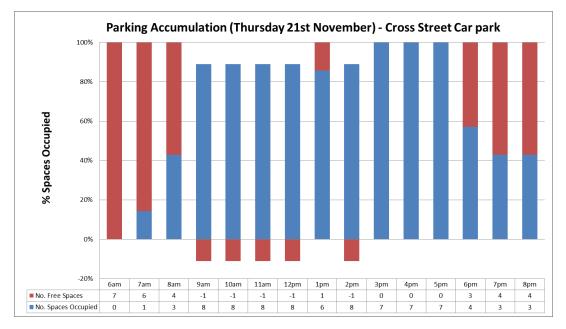
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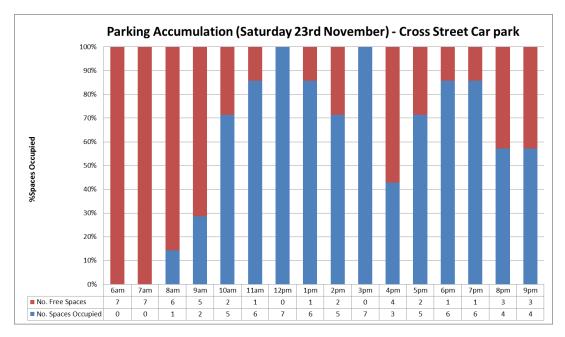
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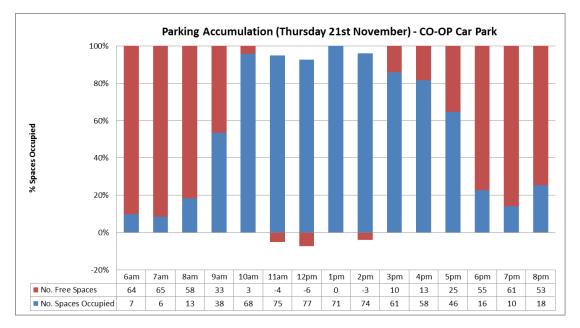
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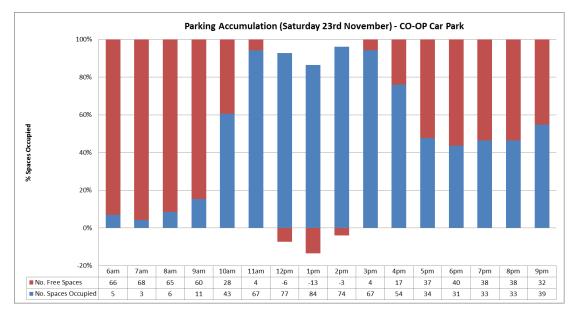
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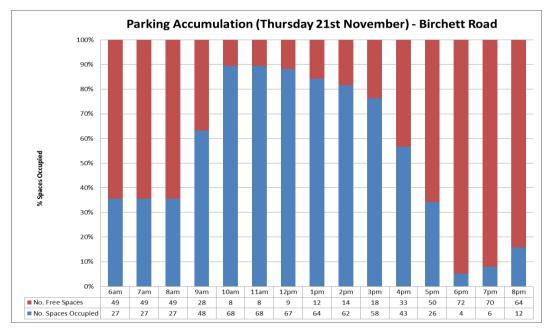
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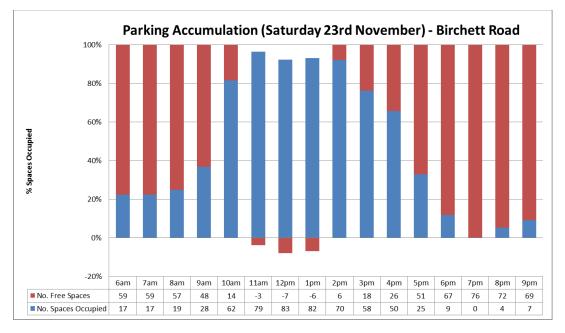
Number of Parked Cars in Co-Op Car Park on Thursday 21st November



Number of Parked Cars in Co-Op Car Park on Saturday 23rd November



Number of Parked Cars in Birchett Road Car Park on Thursday 21st November



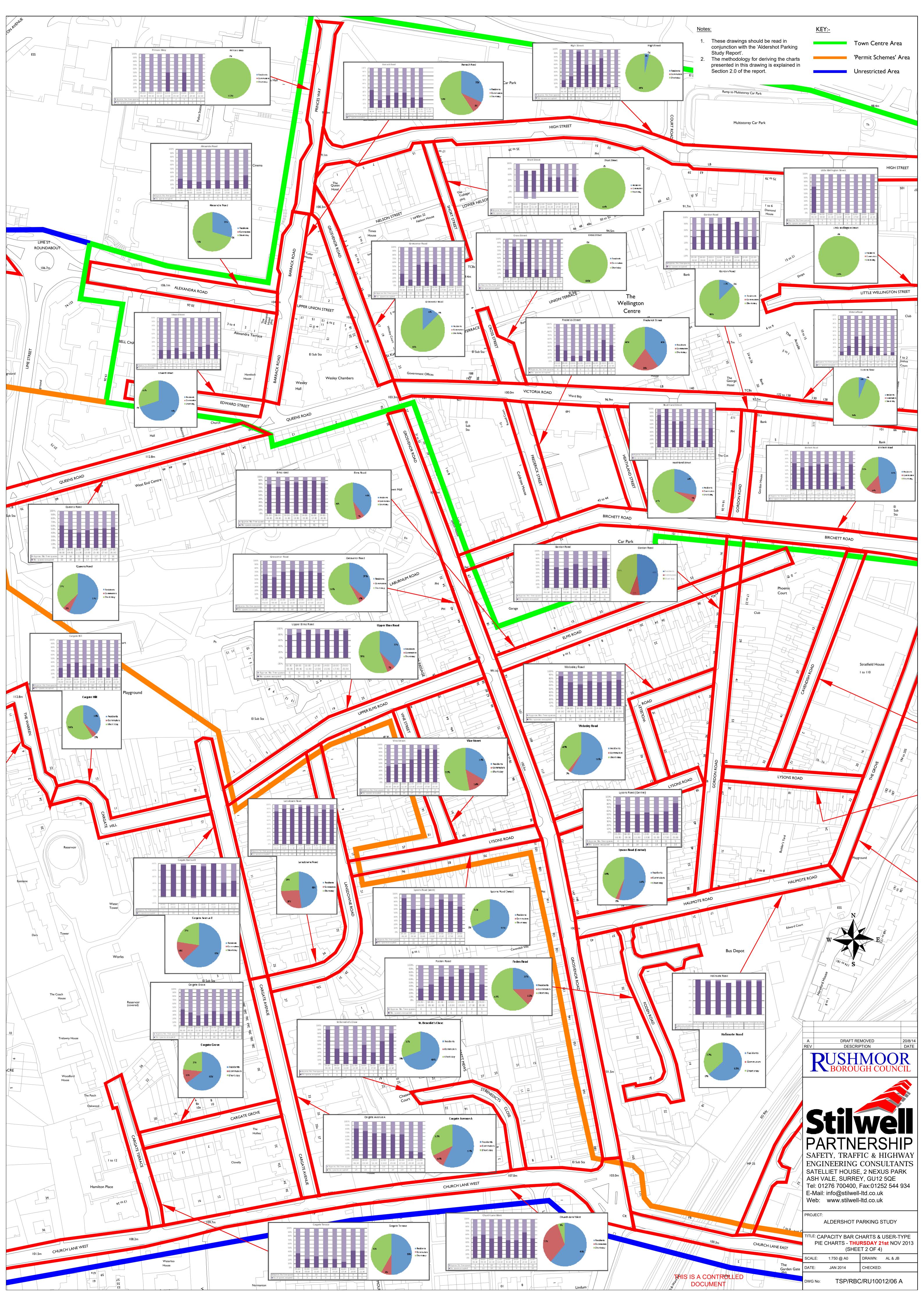
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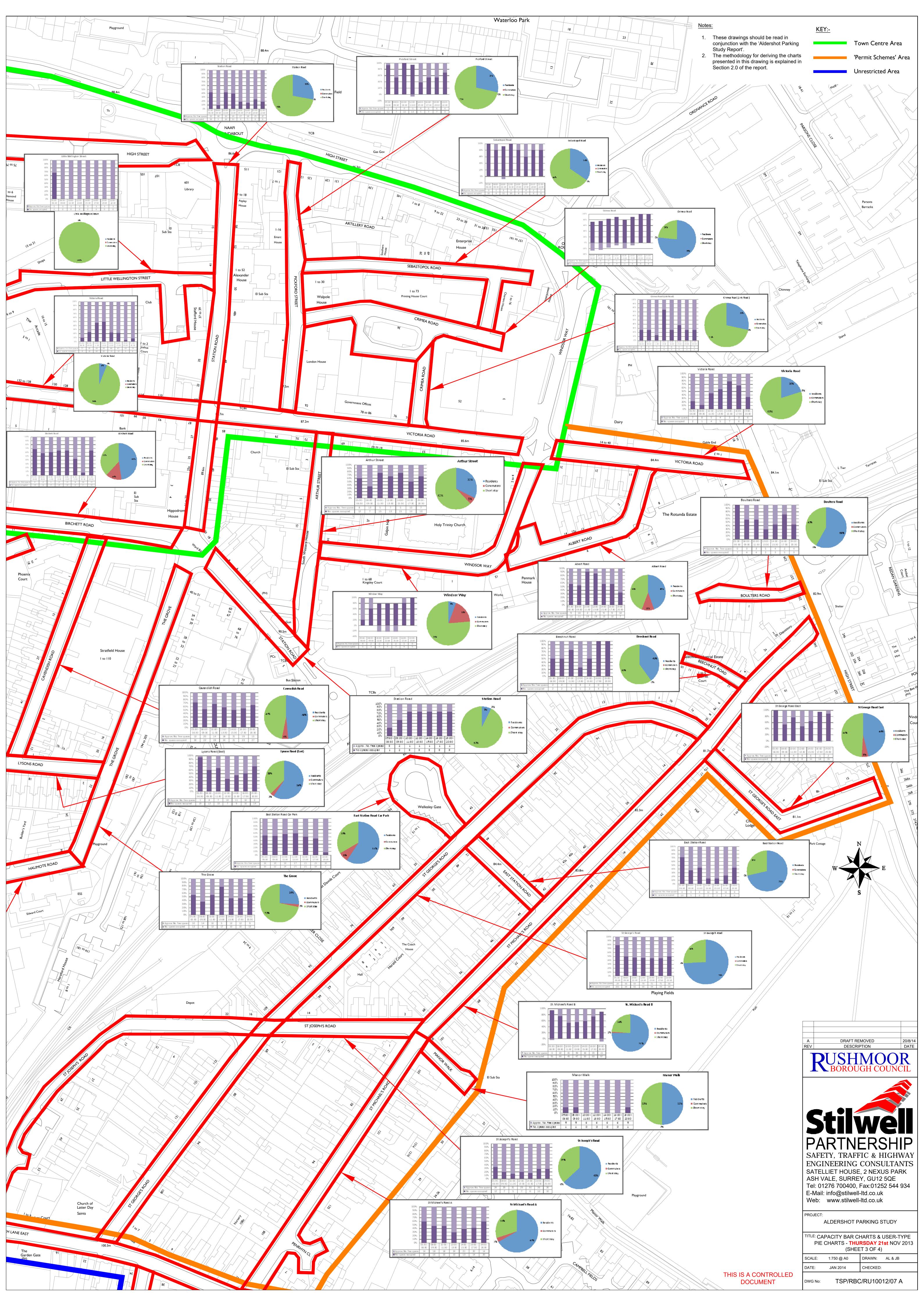


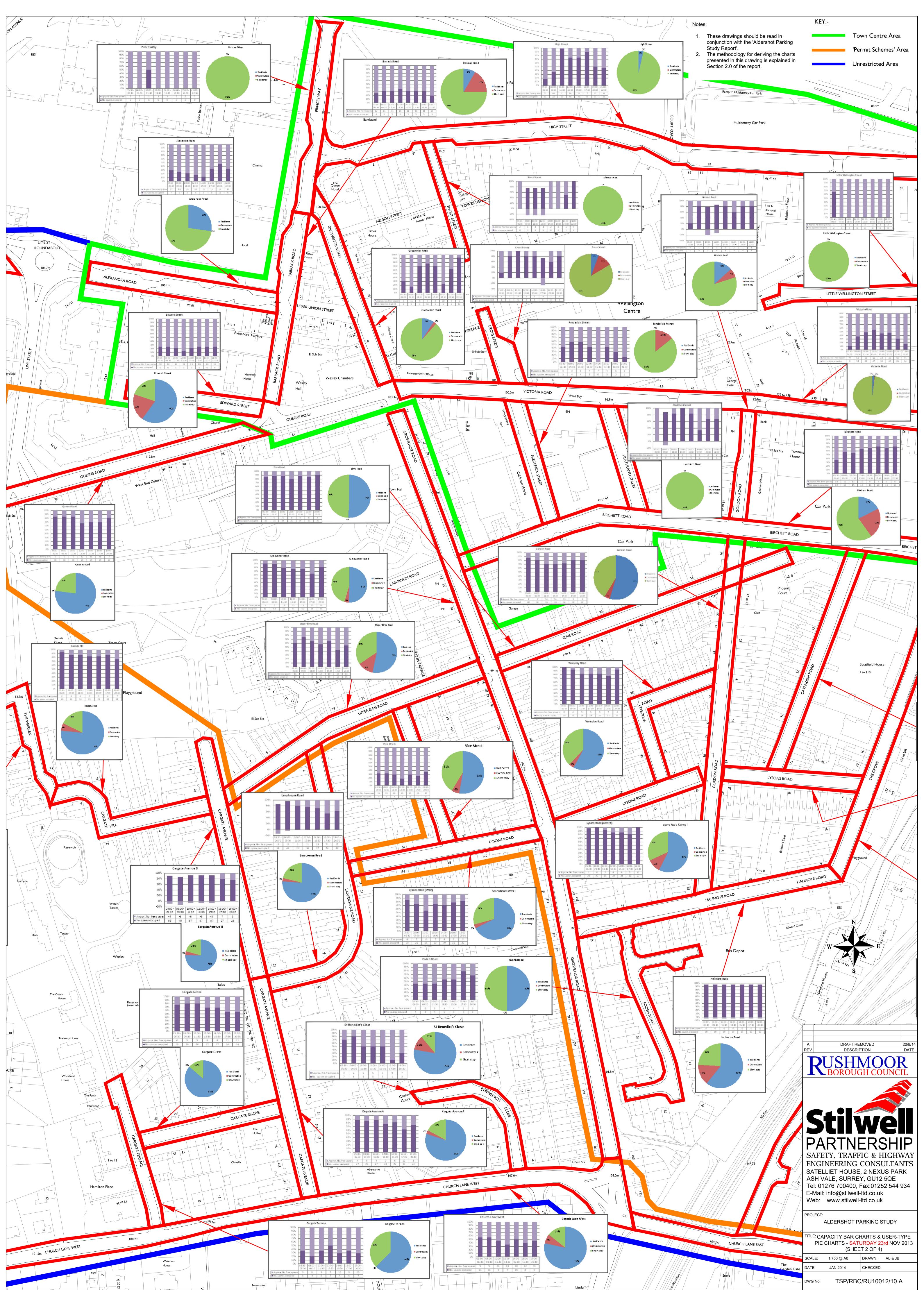
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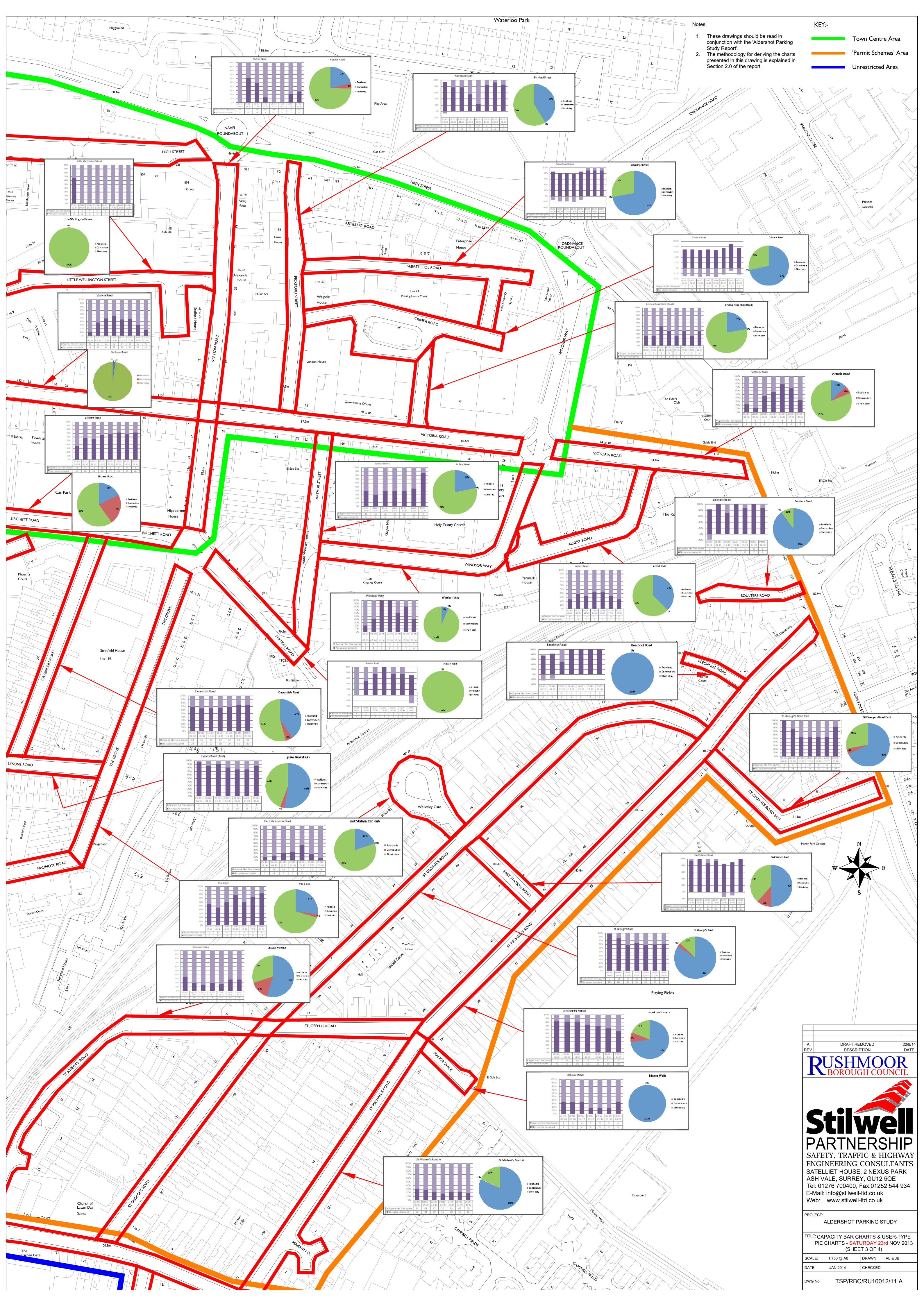
2014 on-street survey results

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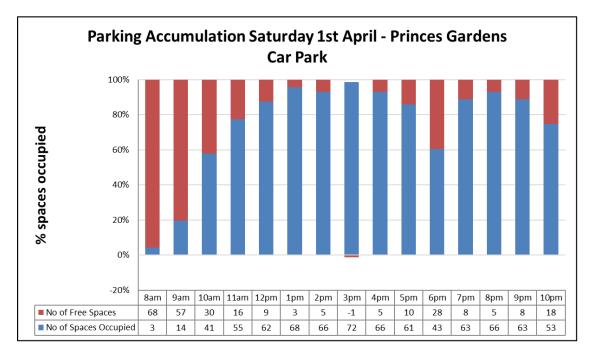


Appendix F

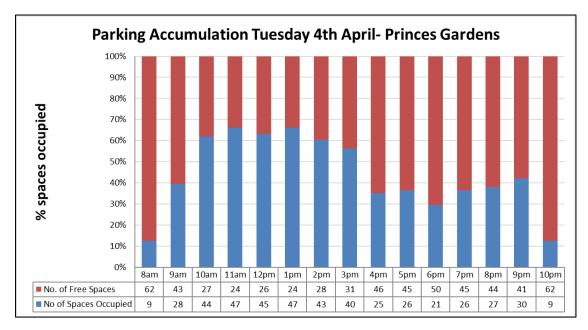
2017 off-street capacity bar charts

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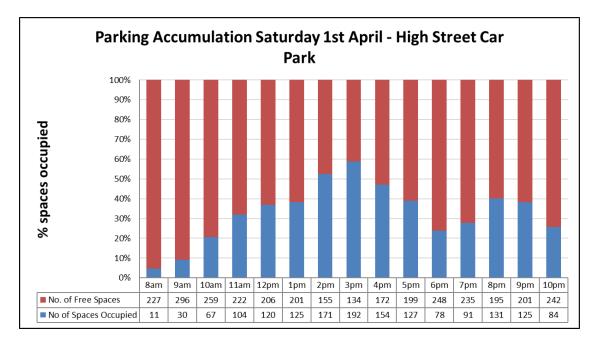
2017 off-street parking survey results



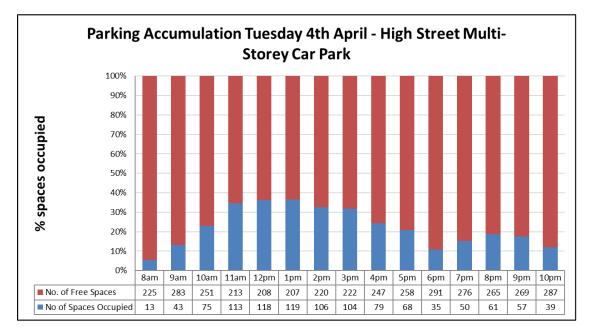
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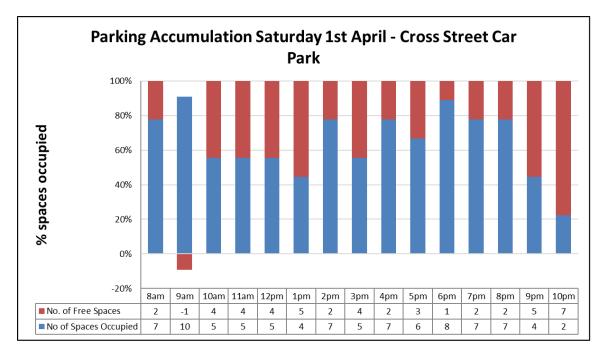
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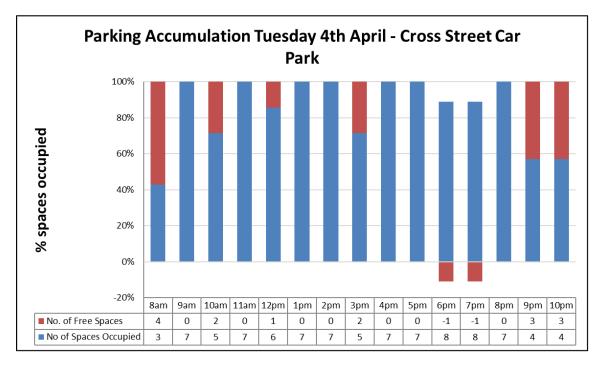
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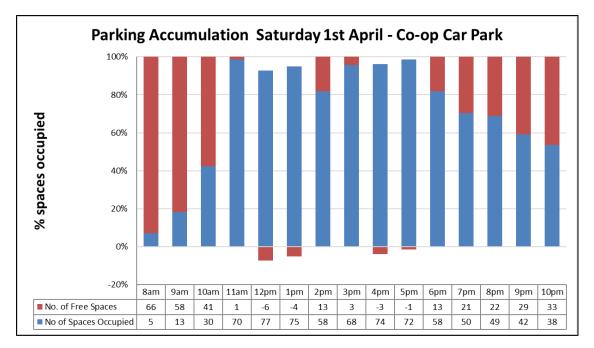
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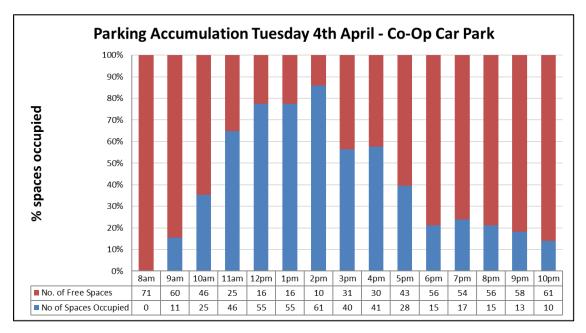
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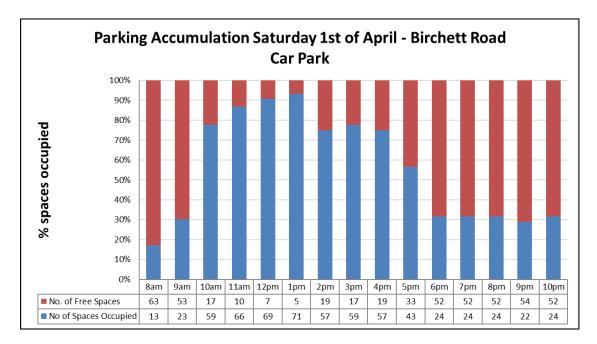
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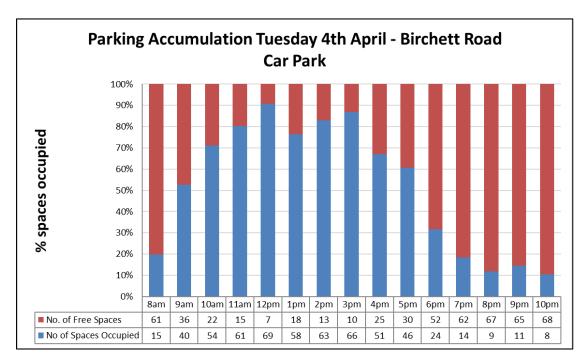
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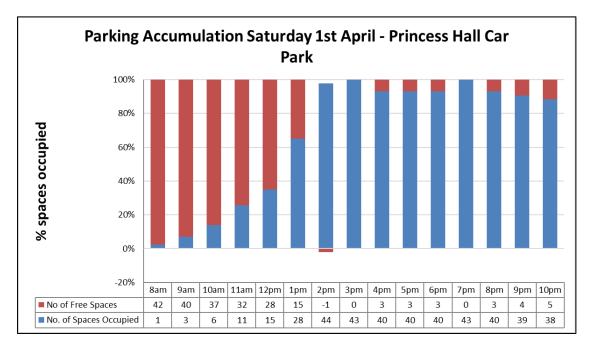
Number of Parked Cars in Co-Op Car Park on Tuesday 4th April



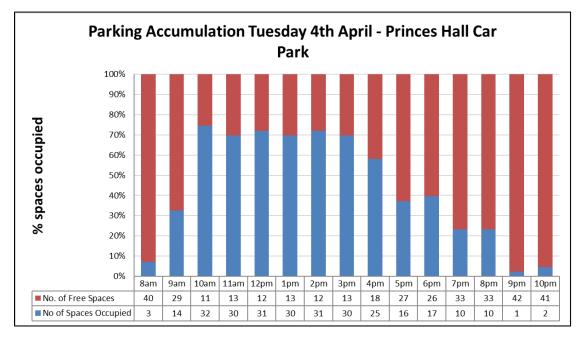
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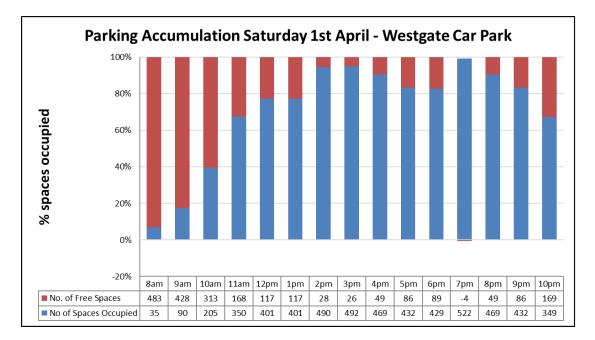
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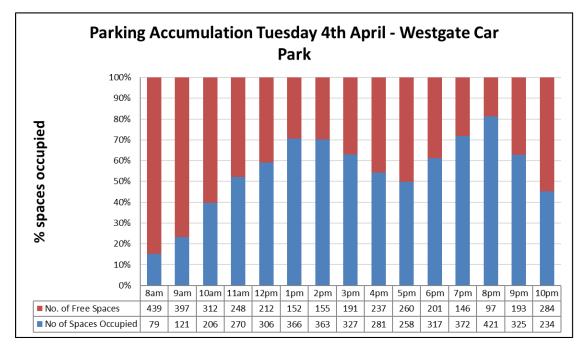
Number of Parked Cars in Princes Hall on Saturday 1st April



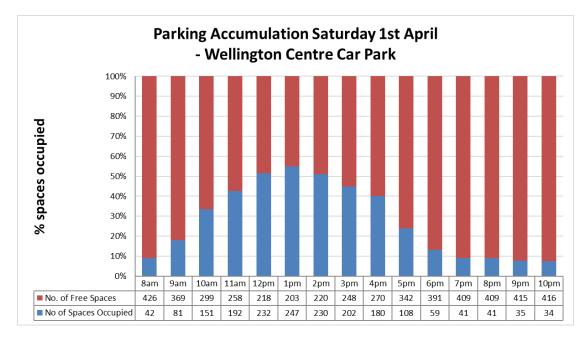
Number of Parked Cars in Princes Hall Car Park on Tuesday 4th April



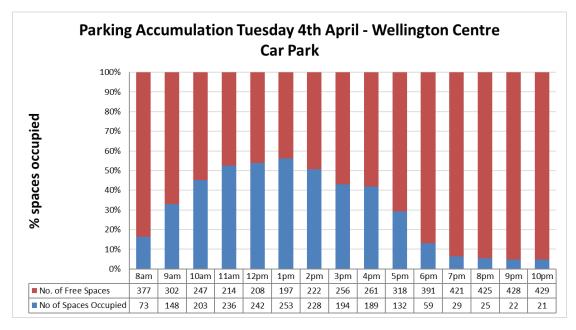
Number of Parked Cars in Westgate on Saturday 1st April



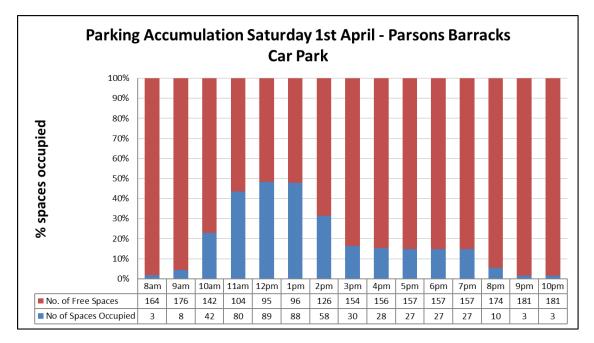
Number of Parked Cars in Westgate Car Park on Tuesday 4th April



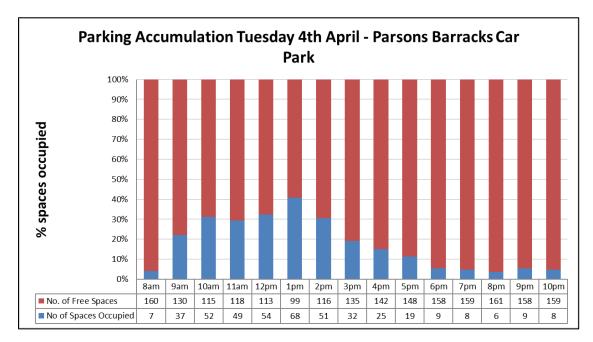
Number of Parked Cars in Wellington Centre on Saturday 1st April



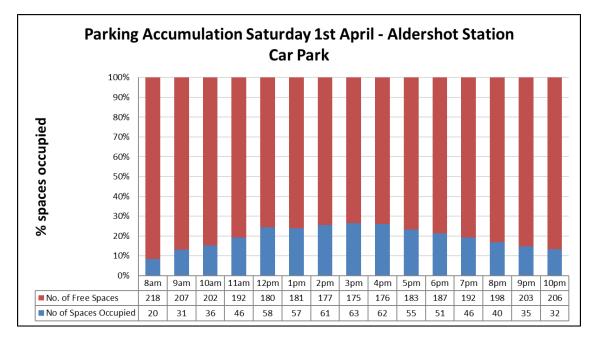
Number of Parked Cars in Wellington Centre Car Park on Tuesday 4th April



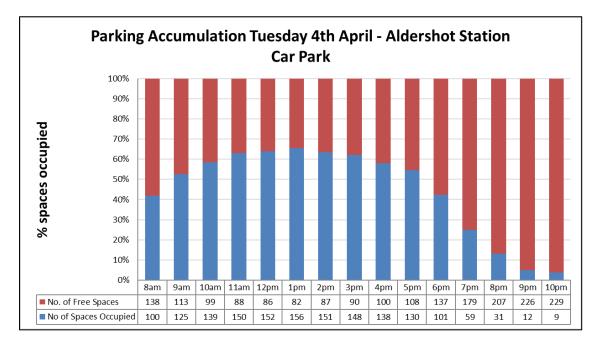
Number of Parked Cars in Parsons Barracks on Saturday 1st April



Number of Parked Cars in Parsons Barracks Car Park on Tuesday 4th April



Number of Parked Cars in Aldershot Station on Saturday 1st April

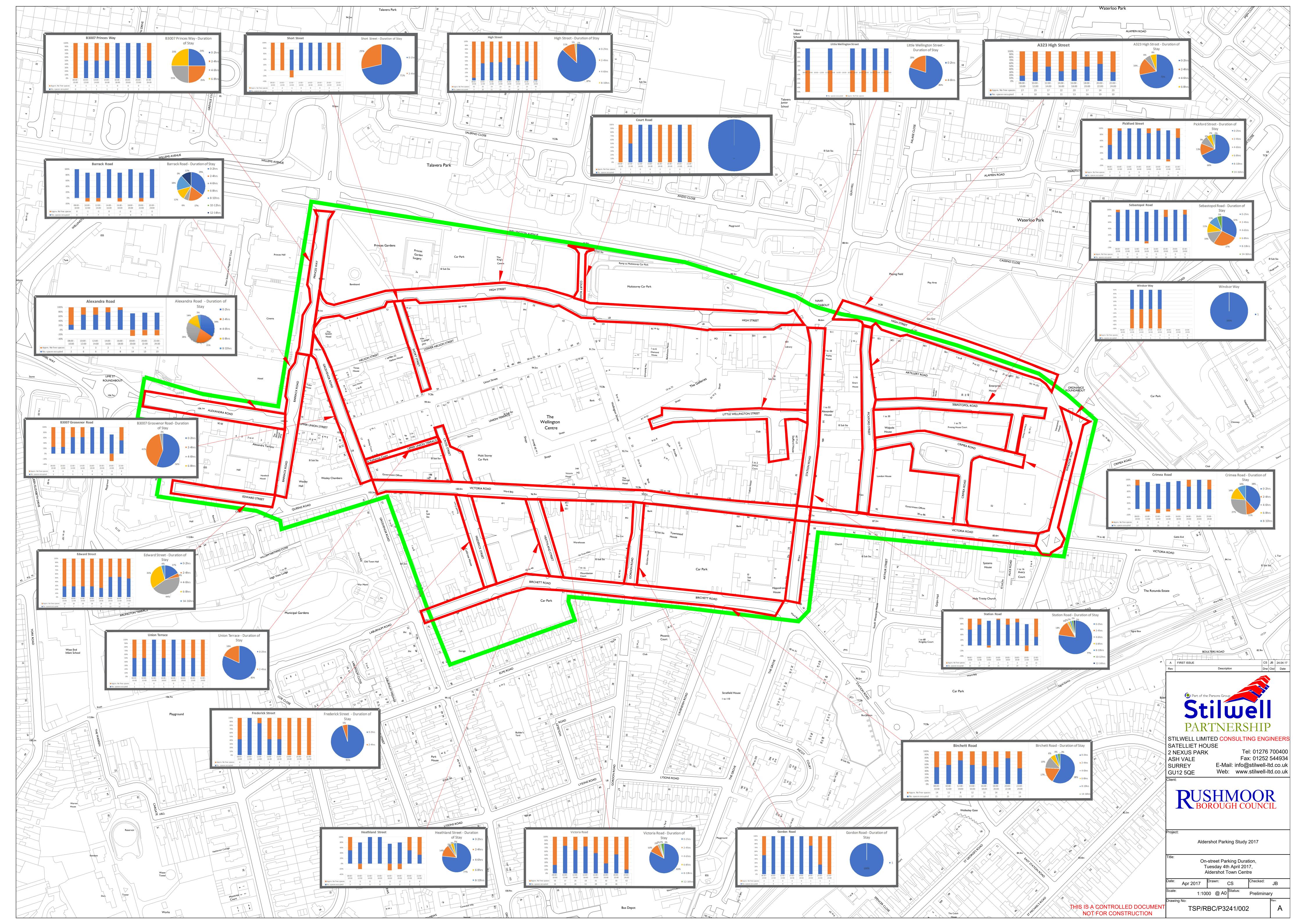


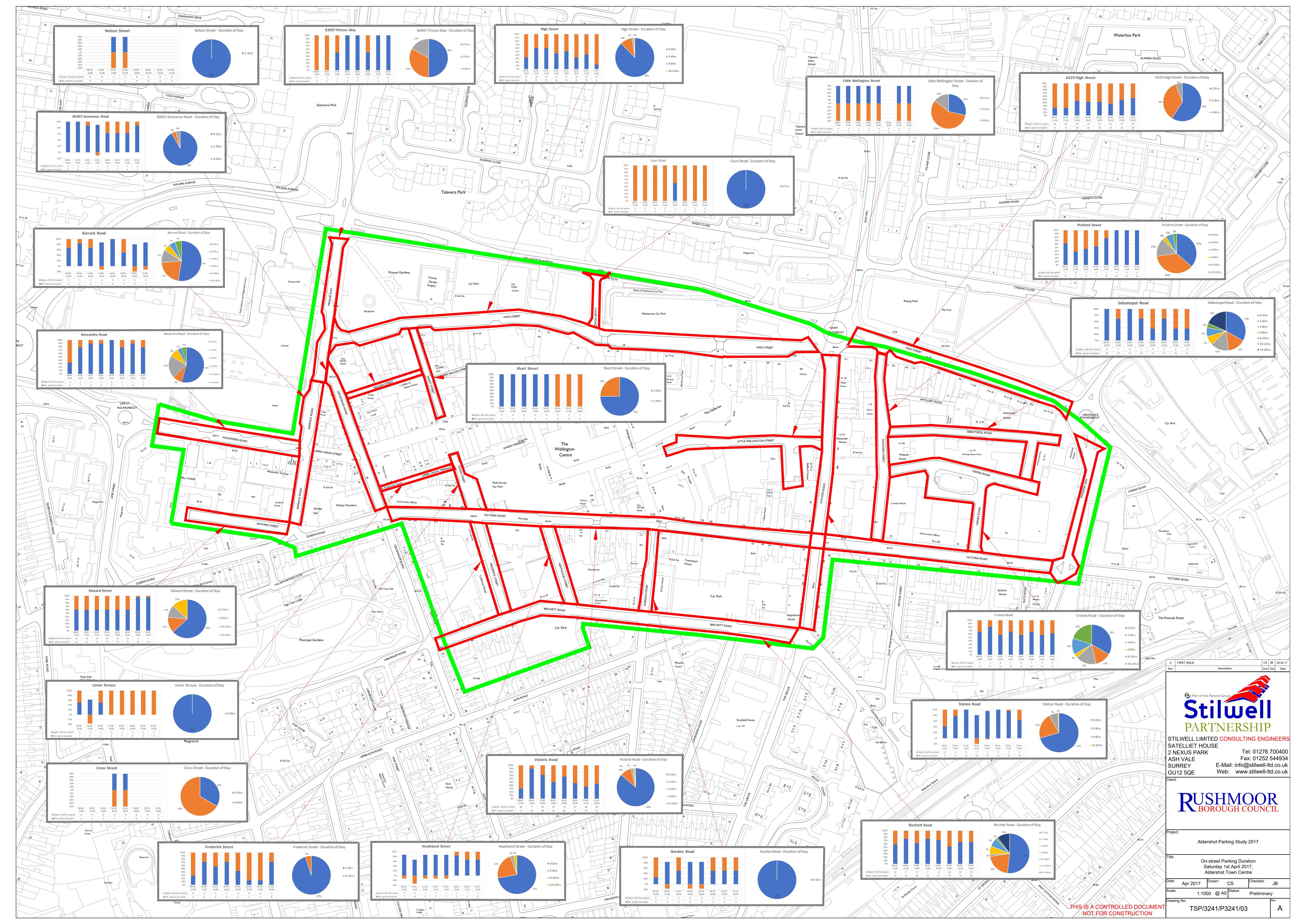
Number of Parked Cars in Aldershot Station Car Park on Tuesday 4th April



Appendix G

2017 on-street survey results



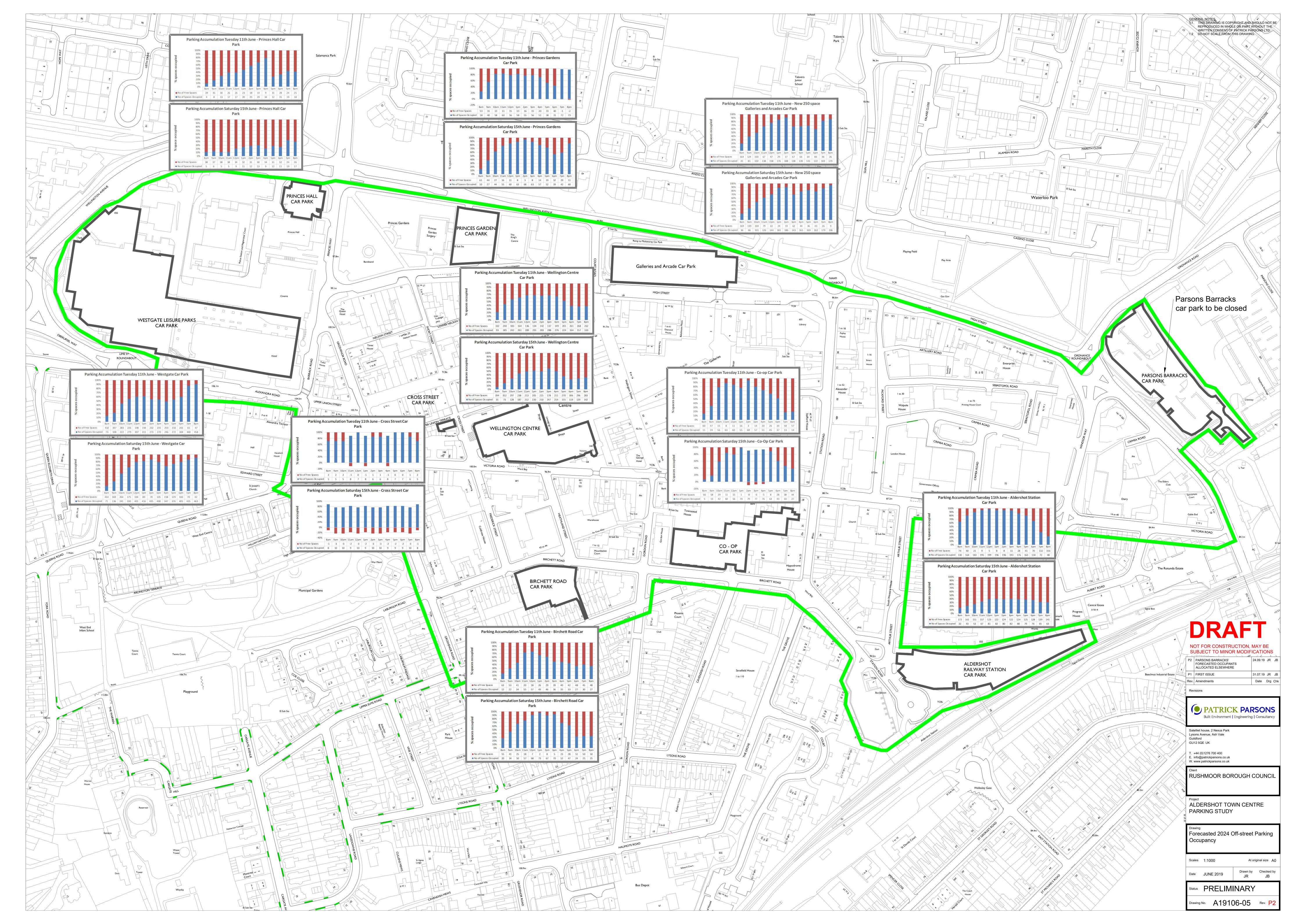




Appendix H

Forecasted 2024 off-street capacity bar chart plans

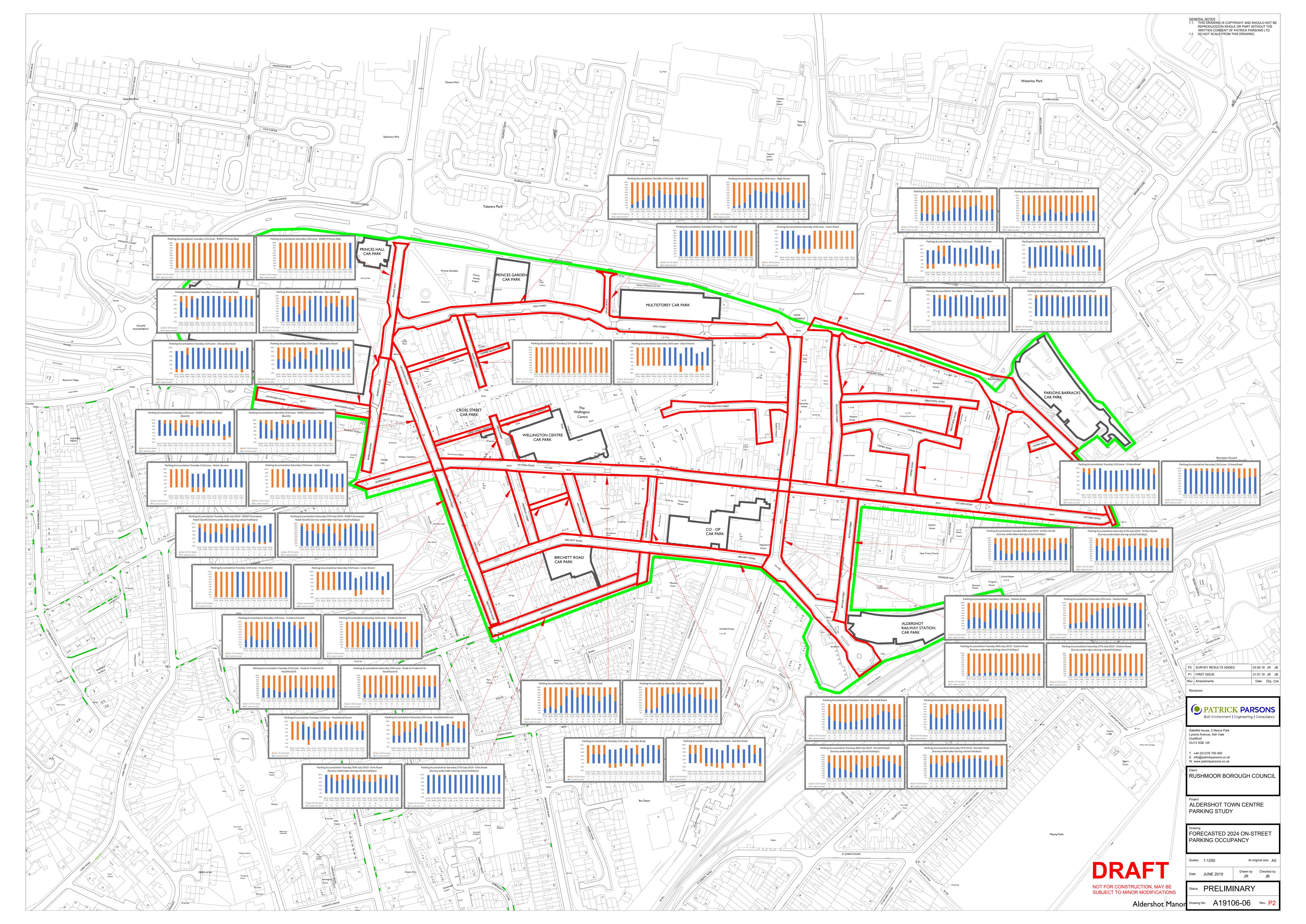
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Appendix J

Forecasted 2024 on-street capacity bar chart plans



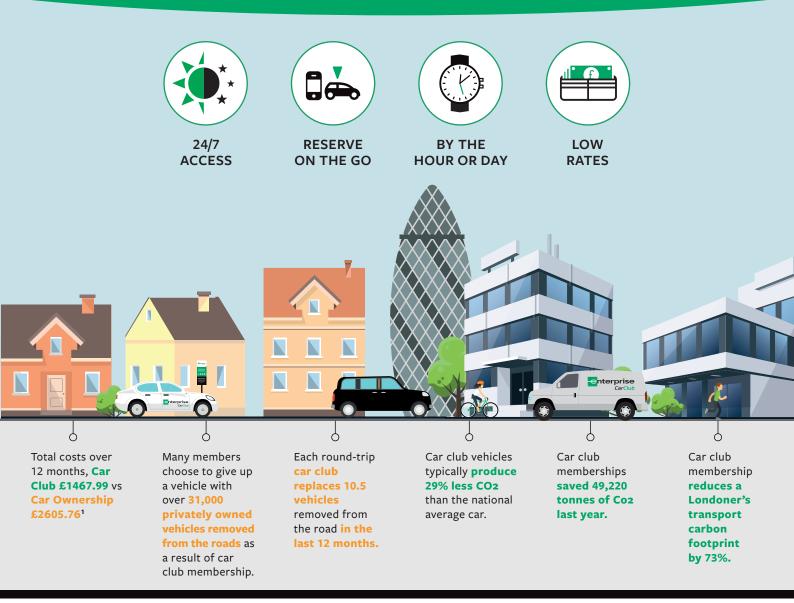


Appendix K

Information on Enterprise Car Club

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Car clubs members save money on car ownership, car insurance, tax and even fuel.



QUOTE OFFER CODE

ECCU1

'Source icathireinsurance, 2017 - Car Club average cost when using car for maximum of 4 hours each week. Car ownership average cost per year over five years. *First year membership included for £10 (£60 value per year). Standard terms and conditions apply. 60 miles per day included. Not valid on under 22 membership plan. Contact the Clubhouse team at membership@enterprisecarclub.co.uk for more information. Enterprise, Enterprise Car Club, and the "e" logo are trademarks of Enterprise Holdings, Inc. @2018 Enterprise Car Club. (J4234 04.18.

Planning and building? THINK ENTERPRISE CAR CLUB







Car Club Overview

Our Story



Enterprise Car Club offers your residents and the wider community access to vehicles 24/7, 365. This initiative has grown to include markets in the UK, US and Canada partnering with government, corporate, local authorities and universities.

Enterprise Car Club is a natural extension of Enterprise Holdings' long term commitment to mobility solutions by providing sustainable, financial and operational transportation to businesses and communities.



TODAY The Enterprise Car Club network serves organisations, universities and retail markets throughout the UK, continuing our focus on meeting local transportation needs and delivering a sustainable customised service for more than 55 years.







Planning & Building

Planning & Building

Whether you are a property developer, housing association or local authority, Enterprise Car Club is the first choice for any organisation looking to implement a Car Club.

Working with Enterprise Car Club will save your business time and money. Our dedicated property development account manager will support your requirements from start to finish, taking all the hassle away.



"Car clubs emit one tonne of carbon a year less than an average car for the same mileage."

Carplus, 2016

Supporting your project

Our dedicated property development account managers have experience in planning and implementing car clubs for a variety of developments ranging in size and location.

• PLANNING PERMISSION

The inclusion of Enterprise Car Club could increase the likelihood of gaining the most optimal planning permission for your project.

• SECTION 106 REQUIREMENTS

Enterprise Car Club will address specific concerns of local authorities relating to parking pressure and will fulfil the requirements outlined in Section 106 agreements (Section 75 in Scotland).

• ATTRACT BUYERS AND TENANTS

Adding a car club gives you the ability to advertise properties as 'comes with access to a car!'.

MAXIMISE ON-SITE SPACE

Cut build costs and reduce construction time by reducing the parking requirements within your project.

REDUCE CONGESTION

Contribute towards reducing congestion and encourage a sustainable and economical alternative to car ownership.



"For each round-trip car club vehicle, 10.5 cars have been removed from the road as a result of car club members who have sold a car."

Carplus, 2016



Why Enterprise Car Club?

The Benefits



DEDICATED ACCOUNT MANAGER

A single point of contact managing your account throughout the process.

OUR EXPERIENCE

We have a strong track record of implementing projects with some of the country's leading property developers, housing associations and local authorities.

WE'RE GROWING

Enterprise Car Club already has the largest car club footprint in the UK serving over 23+ cities including Brighton, Bristol, Cardiff, Edinburgh, Leeds, London, Manchester and Sheffield.

• VEHICLE RANGE

We have a range of vehicles to suit all needs from small city cars to, 7 seaters, vans and even electric vehicles.

LEADING CUSTOMER SERVICE

We are committed to providing industry leading service to our account partners and members.







Account Management

Account Management



Because every development is different, we tailor the timeline and plan based on your needs. Below is a top line example of the support we provide as part of implementing Enterprise Car Club into your development.

IMPLEMENTATION

- Discuss best practice and effective "Vehicle Live" date
- Provide a bespoke proposal that discharges your section 106 requirements
- Identify optimal vehicle types and locations
- Site visits to check placement and delivery of the vehicles
- Build and support the communication of any relevant membership offers for residents

Our experienced and dedicated account managers will help you every step of the way.

Resident Benefits

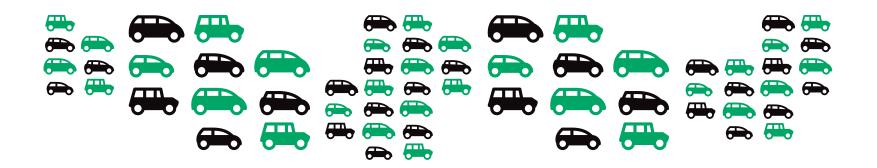


Enterprise Car Club provides residents with access to more than 1000 vehicles 24/7/365 in 23+ UK cities.

RESIDENT BENEFITS:

- Access to a vehicle without the financial burden of ownership
- Access to vehicles across the UK
- Low hourly and daily rates
- Preferential membership options

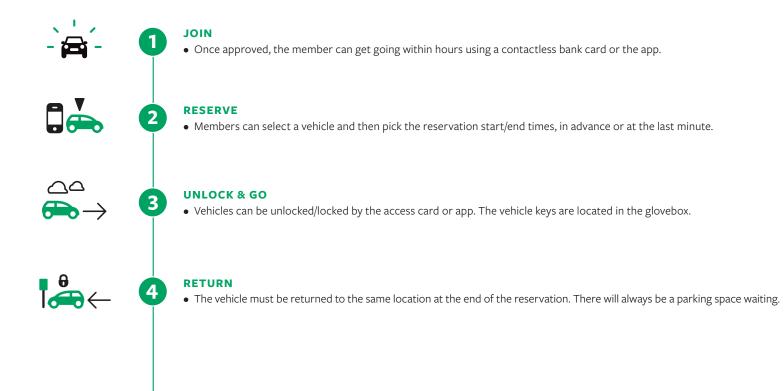
- Zero vehicle maintenance responsibilities
- Mode of travel which complements public transport
- Vehicles can be reserved in advance or at the last minute
- Dedicated Clubhouse team available 24/7



Member Experience



We've made the process simple so members can get where they need to go and worry less about how to get there.



Need more info? Watch the "How it Works" video at EnterpriseCarClub.co.uk



Once vehicles are in place, your dedicated account manager can work with you to hold events promoting the new on-site service to your residents.

Û



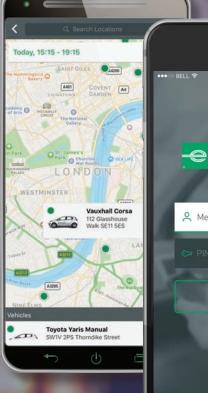
Download today!

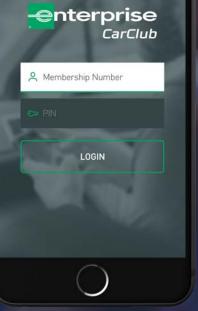
MOBILE RESERVATIONS

- Create
- Modify
- Extend
- Cancel

FEATURES

- Search vehicles by landmark
- Switch between personal & business use
- Switch vehicle by feature





4:21 PM

100%



Testimonials



Barratt Homes London

Enterprise Car Club provide a professional approach in delivering an easy accessible car club on a large and extremely complicated regeneration scheme, making the whole process easy for the developer to implement on site for the end users.

Craig Ireland, Senior Technical Manager

Battersea Power Station Development Company

The reason why I choose Enterprise Car Club to be our chosen operator for Battersea Power Station was due to their flexibility and yes mentality.

> Kate Robinson, Senior Residential Property Manager

Atkins Developments Ltd.

Our experience in working with Enterprise Car Club in mobilising a car club for our developer client on the Millbrook Park development, Barnet, has been very a positive one, with a productive outcome. Enterprise Car Club acted very efficiently and professionally with a clear understanding of the service offer to maximise value to both the client and Millbrook Park residents. I look forward to working with Enterprise Car Club on other developments.

Rachel Evans, Senior Managing Consultant





business@EnterpriseCarClub.co.uk



0345 266 9290

enterprise CarClub

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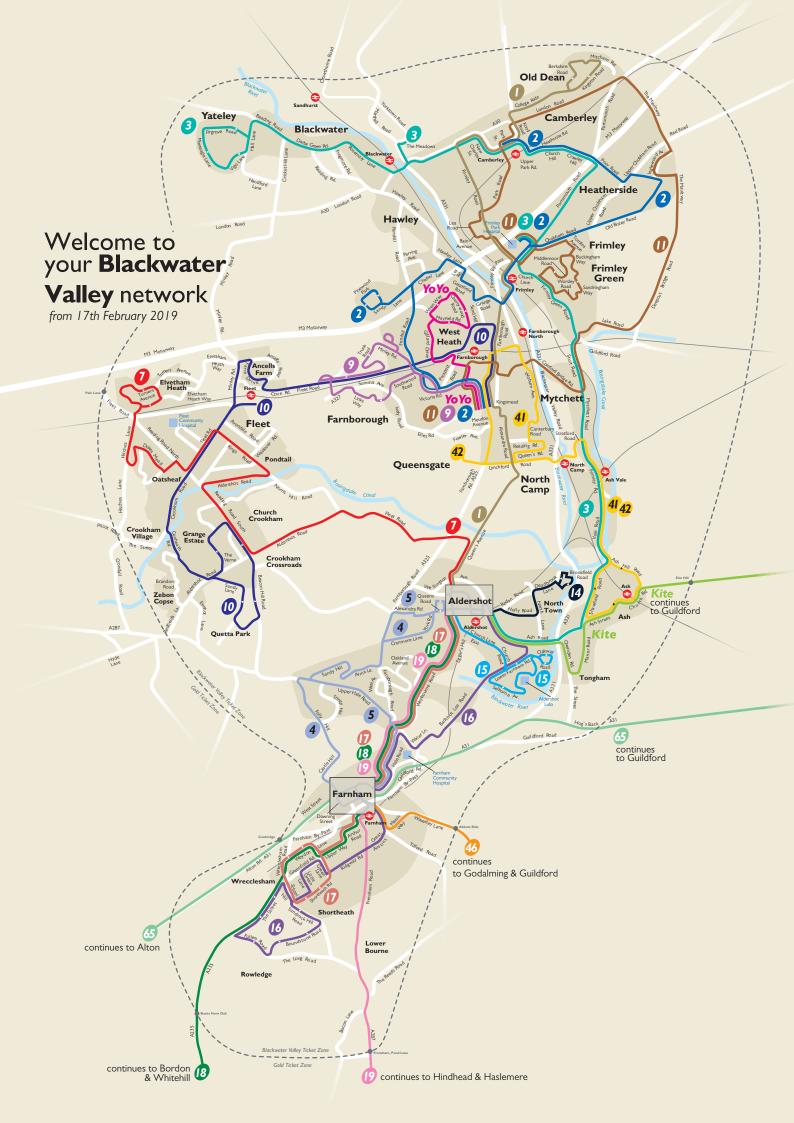
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Appendix L

Existing bus routes map

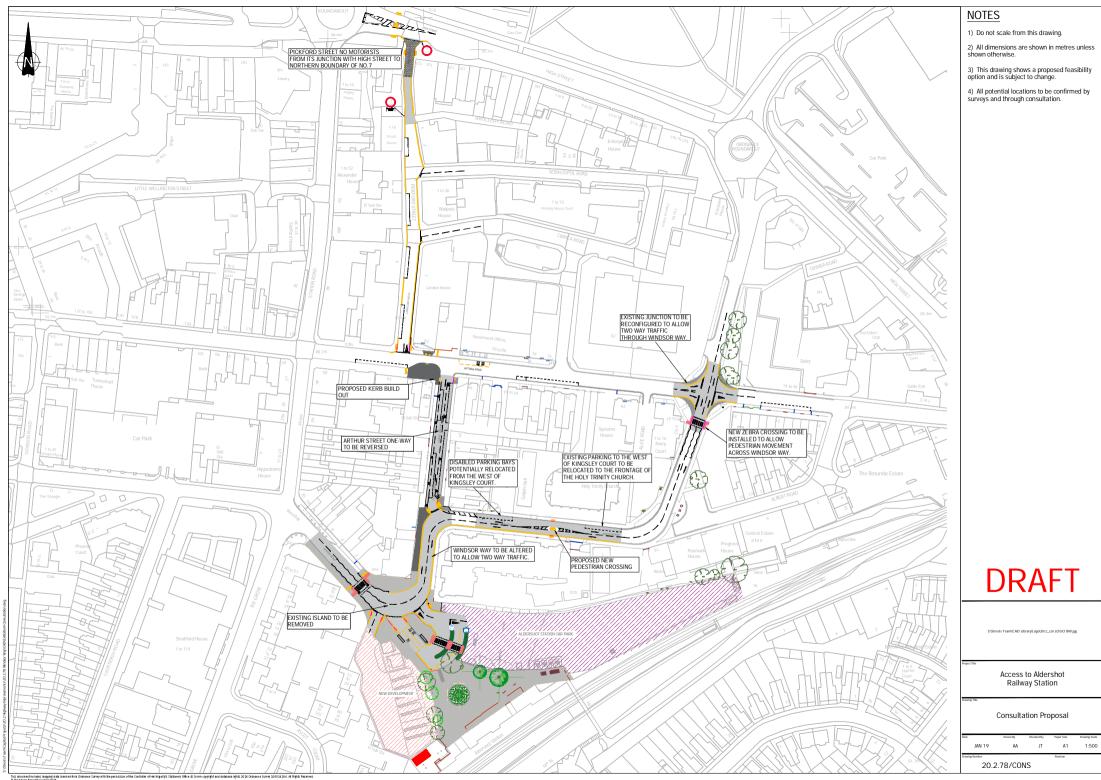




Appendix M

'Access to Aldershot Railway Station' improvements plan

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UK locations:

Newcastle upon Tyne London Manchester Glasgow Huddersfield Chester Birmingham Guildford	
International locations	
Dubai Sydney	

Telephone +44 (0)1276 700 400 Email guildford@patrickparsons.co.uk Online patrickparsons.co.uk