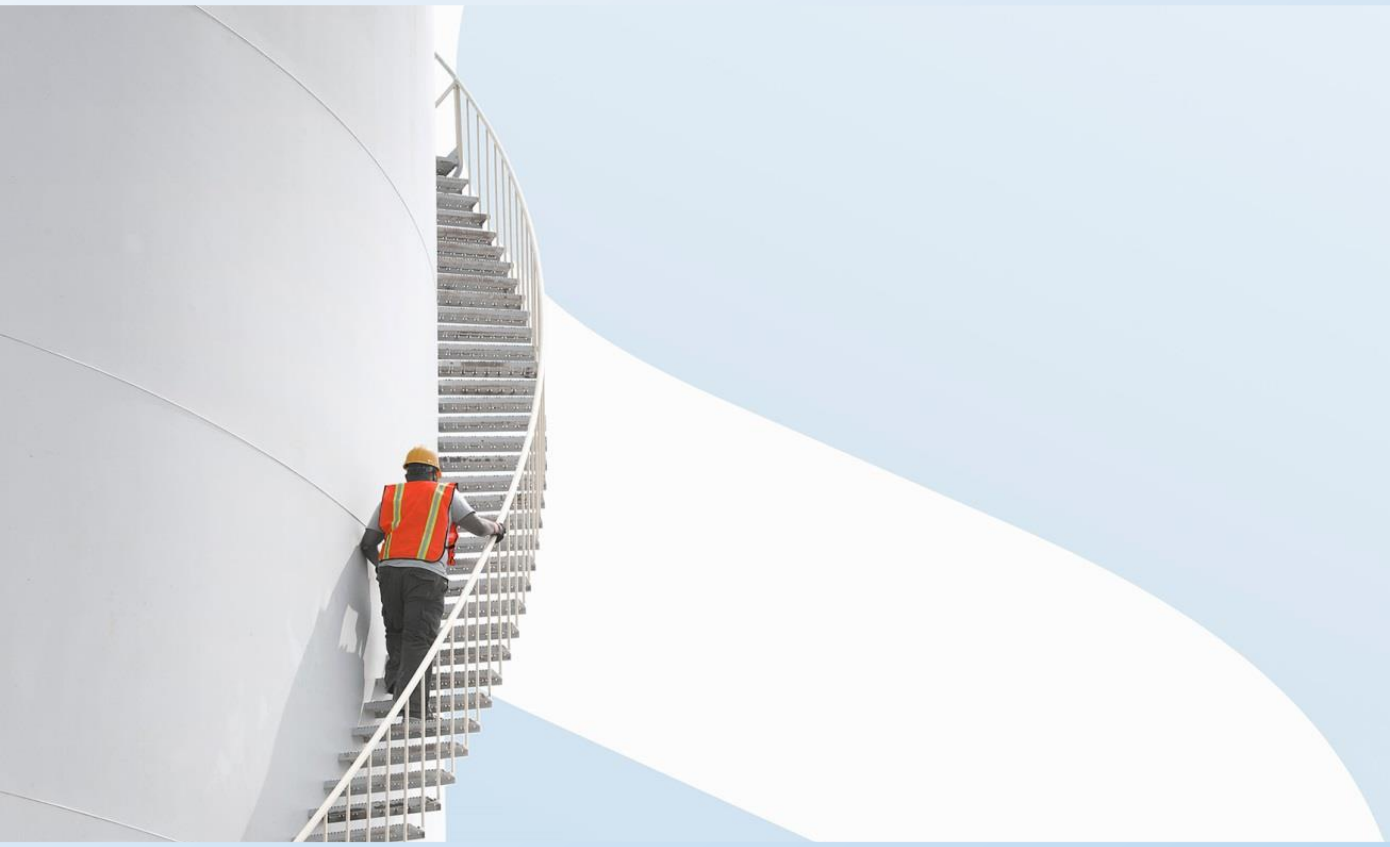
Maidstone Borough Council

MAIDSTONE TRI-STUDY

Bus Interchange Study, Town Centre Parking Strategy, and Park & Ride Study



NOVEMBER 2017

PUBLIC

Maidstone Borough Council

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Bus Interchange Study, Town Centre Parking Strategy, and Park & Ride Study

PROJECT NO. 70031965
OUR REF. NO. MAIDSTONE TRI-STUDY

DATE: NOVEMBER 2017

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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Date	5th December 2017	20th December 2017		
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Signature				
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Project number	70031965			
File reference	\\uk.wspgroup.com\Central Data\Projects\700319xx\70031965 - Maidstone Bus, Parking and P&R\C Documents\Reports\Tri-Study Report			

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INTRODUCTION

1 INTRODUCTION

1.1 APPOINTMENT

1.1.1. WSP has been appointed by Maidstone Borough Council (MBC) to undertake three linked studies (the Tri-Study). They are:

- Bus Interchange Study;
- Town Centre Parking Strategy; and
- Park & Ride Study.

1.2 STUDY CONTEXT

1.2.1. The objectives of each of part of the Tri-Study are derived from MBC's adopted Integrated Transport Strategy and adopted Local Plan. In particular, the Tri-Study addresses the following.

- Bus Interchange Study
  - PT8 (promote the provision of high quality bus services from Rural Service Centres including interchange facilities at rail stations),
  - PT11 (Improve bus facilities at Maidstone East and Maidstone West rail stations to maximise interchange capabilities),
  - PT12 (improve interchange facilities at Staplehurst rail station) and PT13 (work towards an improved bus station in Maidstone town centre)
- Town Centre Parking Strategy
  - P2 (optimise long stay parking charges to extract maximum value from parking charges, whilst controlling demand through a 50% increase in long-stay charges by 2031)
  - P3 (optimise the level of parking space provision in the town centre).
- Park & Ride Study
  - ITS Target 3 (To increase public transport mode share in Maidstone from 7.3% to more than 10% of all work trips by 2021 and 12% by 2031),
  - ITS Target 4 (To decrease car driver mode share in Maidstone from 44.3% of all work trips to below 40% by 2021 and below 37% by 2031); and
  - ITS Target 5 (To undertake a full and independent review of Maidstone's Park and Ride provision, issue and act upon recommendations by 2017).

1.3 CONSULTATION

1.3.1. The following stakeholders have been consulted as part of this study:

- Maidstone Borough Council;
- Kent County Council (local highway authority); and
- Local Bus Operators (including Arriva, as the main provider of services in the town and across the Borough)

1.4 REPORT STRUCTURE

1.4.1. Following this introductory chapter, the report sets out relevant policy at the time of publications and then presents each element of the Tri-Study in turn.

2

POLICY CONTEXT

2 POLICY CONTEXT

2.1 INTRODUCTION

2.1.1. In considering longer-term developments and investment in public transport infrastructure, it is important to take account of the policy context, which will shape the likely demand and supply of services over the lifetime of the asset(s). The following policy documents have therefore been reviewed as part of this study.

2.2 KENT COUNTY COUNCIL LOCAL TRANSPORT PLAN 4 – DELIVERING GROWTH WITHOUT GRIDLOCK 2016-2031

2.2.1. In this document, KCC identifies the transport priorities and infrastructure requirements for the county to support housing and economic growth in the area for the period between 2016 and 2031. The overall aim of the LTP is to "deliver safe and effective transport, ensuring that all Kent's communities and businesses benefit, the environment is enhanced and economic growth is supported" with defined outcomes as follows:

- Economic growth and minimised congestion;
- Affordable and accessible door-to-door journey;
- Safer travel;
- Enhanced environment; and
- Better health and wellbeing.

2.2.2. The Local Transport Plan recognises that Maidstone is a key centre in the County, not just because it is the County Town and that the road network negatively affects the Town Centre in terms of through traffic (being the meeting point of four A roads) but also because of the transfer effects of problems from the nearby M20 (which has 4 junctions serving the town).

2.2.3. The pattern of services on the rail network across the borough is also challenging as Maidstone East has relatively slow journey times to London Victoria but Headcorn, Staplehurst and Marden have direct services to the City. Bus services within the urban area are noted as being focussed largely around serving the town centre and hospital.

2.2.4. In terms of proposed schemes to address Maidstone's transport priorities, public transport improvements would include:

- Thameslink extension to Maidstone East by 2018 giving direct services to the City of London;
- redevelopment of Maidstone East Station;
- refurbishment of Maidstone bus station;
- other bus infrastructure improvements within the town; and
- improvements on radial (bus) routes into town.

2.2.5. In addition, measures to deliver junction improvements and other corridor capacity improvements could also benefit public transport services in the town and Rural Service Centres.

2.2.6. Other issues identified as countywide and cross-district priorities are also relevant to the development of public transport in the borough including cashless 'smart' ticketing ("Connected Kent and Medway") and enhancement to Medway Valley rail services to improve connectivity between Tunbridge Wells and Maidstone via Tonbridge.

2.3 MAIDSTONE BOROUGH LOCAL PLAN

2.3.1. The Maidstone Local Plan is the key document that sets the framework to guide the future development of the borough and seeks to deliver 18,650 homes and supporting employment between 2011 and 2031.

2.3.2. The stated vision for the Town Centre considers that a key component of realising the vision is "Tackling congestion and air quality issues through improvements in provision for vehicles, pedestrians and cyclists, including public transport". Although no specific reference is made to the Bus Station in Spatial Policy 4, Maidstone Town Centre, further details of policy are given in the Integrated Transport Strategy and the Infrastructure Delivery Plan.

2.3.3. Policy DM24, Sustainable Transport, does however state that "the council will work with the service operators to procure express/limited stop bus services on the radial routes into Maidstone (particularly from the north including the Newnham Park Area and from the south on the A229 and A274) to the Town Centre and railway stations in the morning and evening peaks to encourage modal shift together with the implementation of bus priority measures to seek to secure the reliability and speed of such services."

2.3.4. Furthermore, "Through the ITS bus service frequencies will look to be increased (to at least every 7 minutes) on radial routes serving Maidstone town centre. (The A274 Sutton Road corridor from Park Wood already has an 8-minute frequency). Bus priority measures will be provided in order to encourage the use of public transport by seeking to ensure the reliability and frequency of services will continue to be made more accessible to all users."

2.3.5. Of most significance to this study is the synopsis relating to the Bus Station: "The town's main bus interchange located at the Mall Chequers Shopping Centre is not fit for purpose. In the short term (1-2years), the council will work with the landowners of the Mall Chequers Shopping Centre and service providers to secure significant improvements to the existing bus station to increase its attractiveness and ease of use. In the medium to longer term, the Mall Chequers Shopping Centre and adjoining land, where the current bus interchange facility is located, is identified for potential redevelopment (policy SP4). As part of the regeneration of the site and area, the council will work with the Centre's owners (and other land owners that may be affected) together with the public transport operators to secure the provision of a new bus interchange facility that is more accessible, user-friendly and fit for purpose in the light of the desire for improved bus service provision and patronage across the borough."

2.3.6. The Infrastructure Delivery Plan (May 2016) makes reference to the following relevant Town Centre items in the scheduled highway and transportations improvements:

Table 1 – Infrastructure Delivery Plan Town Centre Highways & Transportation Improvements

Item Reference	Scheme	Estimated Cost	Status (February 2016)
HTTC2	Provision of a bus lane on Romney Place.	£60k	Detailed design work is complete. Funds have been secured. Construction anticipated in 2016.
HTTC3	Improvements to the Maidstone Bus Station	£2.0m	Outline design work currently underway
HTTC11	Improvements to Maidstone East Rail Station forecourt and ticket office, together with improvements to the public realm at the northern end of Week Street.	£2.0m	Funding secured and scheme expected to be delivered in 2016/17.
HTJ75	Increased frequency of 333 / 334 route to provide a bus service with 15 minute intervals between site RMX1 (1) [Newnham Park] and the town centre, potentially to include the provision of bus priority measures on New Cut Road to include traffic signals at the junction with the A20 Ashford Road.	c£2.7m	Bus extension scheme options considered under planning applications at site RMX1 (1) [Newnham Park].
HTSE8	Extension and/or improvements to the frequency of bus services along the A274 Sutton Road to connect the allocated sites with the Town Centre.	c£2.7m	Discussions ongoing with Arriva to determine the most appropriate scheme

2.3.7. In addition, several other improvements include bus priority and other enhancements to infrastructure and services outside of the Town Centre including HTSE1, HTNW7, HTUA3, HTC3, HTC5, HTM2, HTS2, HTS3, HTS4 and HTS5.

2.3.8. More generally, the principal employment site identified within the town is on Mote Road, immediately to the south of the existing bus station site (EMP1 (1)) and is allocated 8,000m2 of employment floorspace. In terms of shopping, “the key opportunity and top priority for new retail development will be the Maidstone East/Royal Mail Sorting Office site (RMX1(2))”, which is allocated 10,000m2 of retailing floorspace. The overall attractiveness of the retail and mixed-use offer will also be supported in the longer term by the identification of The Mall and the surrounding area including Sainsbury’s, as a Medium to Long Term Comprehensive Retail Development Opportunity (policy RMX1(3)).

2.3.9. The Strategic Development Locations are on the edge of the current urban area, to the north-west (policy SP2) and the south-east (policy SP3). While these will generate demand for travel, which could take the form of increased frequency of existing services or new services, which may then impact on the volume of buses using the town centre, the impact will be less direct than for the principal employment site (EMP1 (1)),

2.4 MAIDSTONE INTEGRATED TRANSPORT STRATEGY 2011 – 2031

2.4.1. The Integrated Transport Strategy (ITS) assesses the principal transport challenges and takes account of future jobs and housing growth. The ITS is consistent with National and Local planning policies including Kent Local Transport Plan 3 2011 – 2016, although as noted above, Local Transport Plan 4 has now been adopted by KCC.

2.4.2. The ITS notes that Maidstone has a well-established bus network, principally operated by Arriva, with a number of smaller independent operators.

2.4.3. The key transport issues for the Borough are also centred around Maidstone Town, these are summarised below; in particular the last point is emphatic about the condition of the current bus station:

- Maidstone has three town centre rail stations, but poor inter-urban connections (…).
- The town's rail stations and bus station are not generally well connected to each other, making for a poor interchange experience.
- Very few bus priority measures – such as bus lanes – exist within the borough, providing no advantage for bus journeys.
- Lack of payment options. Most buses only accept cash payment (…).
- Lack of live departure board information at most bus stops, and limited use of effective smartphone applications including ticket purchasing.
- Service frequencies beyond the urban core are not convenient for most users.
- The town's main bus interchange located at The Mall Chequers Shopping Centre is neither fit for purpose nor user-friendly. It is not well lit or ventilated and is threatening in character being essentially a tunnel under the Centre linking King Street and Romney Place."

2.4.4. In the context of the transport challenges for Maidstone Borough and national and local transport policies, the following vision has been developed:

"Realising Maidstone's sustainable future; connecting communities and supporting a growing economy."

2.4.5. In order to fulfil this vision, the ITS has 5 objectives:

- Enhancing and encouraging sustainable travel choices.
- The enhancement of strategic transport links to, from and within Maidstone town.
- Ensure the transport system supports the growth projected by the Maidstone Borough Local Plan.
- Reducing the air quality impacts of transport.
- Ensure the transport network considers the needs of all users, providing equal accessibility by removing barriers to use.

2.4.6. To achieve these objectives, the ITS aims to:

- Reduce demand for travel.
- Change travel behaviour.
- Promote modal shift.
- Improve network efficiency.

2.4.7. Clearly, among other objectives and priorities, Objective 1 and Priority 3 are directly relevant to the development of public transport provision and encouraging uptake in the population.

2.4.8. The ITS acknowledges that the key to improving transport conditions in the Borough is the full involvement of all the stakeholders including the highway authority (KCC), bus operators, the rail company, Parish Councils and other community interest groups.

2.4.9. It is identified in the ITS that 80% of bus services in Kent are operated on a wholly commercial basis. Accordingly, MBC and KCC have signed a Quality Bus Partnership Agreement with Arriva, which commits to investment in local bus services.

2.4.10. The ITS advocates a series of action plans for all modes of transport in order to achieve the strategic objectives. The actions related to bus services include those to improve bus reliability, such as improving on-street parking enforcement, introducing bus priority measures on strategic routes, improvement to bus service frequencies on all radial/key routes into Maidstone and real-time information.

2.5 MAIDSTONE BOROUGH LOCAL PLAN (TRANSPORT TOPIC PAPER 2016)

The Maidstone Borough Local plan contains implementation plans for each mentioned initiative. For P&R services, the two actions below were planned prior to 2031:

- P&R Fare: £3.00 P&R parking cost
- New P&R service from Linton Corner with 15 minute frequency
-
- However, the service from Linton Corner has now been cancelled, while the fare increase is still being investigated.

The Local plan also indicates broad locations for housing growth through the Policy reference Area:

- H2(1) Maidstone town centre 940
- H2(2) Invicta Park barracks 500
- H2(3) Lenham 1,000

2.6 MAIDSTONE TOWN CENTRE STUDY

2.6.1. The purpose of the Town Centre Study was to provide a robust evidence base to support the preparation of the Core Strategy and an Area Action Plan for Maidstone town centre. Although the Study provides a wider vision for Maidstone town centre, Section 4 of the Study is dedicated to transport.

2.6.2. The Study notes that the main distributor roads are:

- to the east Sittingbourne Road (A249), Wat TylerWay, Knightrider Street, Lower Stone Street, Mill Street and Bishops Way;
- to the west, Tonbridge Road (A26) and London Road (A20)
- to the south, Upper Stone Street (A229) and Hayle Road (A229);
- to the north, Fairmeadow (A229) and Engineers' Road (A229).

2.6.3. Focussing on Maidstone Bus Station, the Study notes that the station is in a prominent location within the public realm but with two main issues:

- Pedestrians access to the bus station is via The Mall. However, the legibility of the bus station is currently poor and uninviting for potential public transport users.
- Bus circulation and general traffic movement through the town centre is predominantly via King Street / High Street / Mill Street / Palace Avenue / Lower Stone Street and Romney Place. This results in congestion and decreased air quality along these routes throughout the town centre.

2.6.4. The Study also notes “There may be potential to move the location of the existing bus station, taking into account bus service routing and traffic circulation, and aiming to improve sustainability. This is a particularly important issue given the plans for increased park and ride and pubic bus services in the longer term” and also concludes that: “Bus access is helpfully focused on King Street and High Street, but the tenuous routes which buses are forced to take along with an unattractive bus station mean the use of buses is not as appealing as it could be”.

2.6.5. The Study recommends enhancing existing bus operations and creating public transport interchanges near railway stations and in the short term to continue using the current Bus Station as the main interchange by increasing the level of quality and services. Other options highlighted include:

- Retain High Street and King Street as a principal transport hub, but promote buses on Palace Avenue;
- New satellite Bus Station at Maidstone East Railway Station; and
- Improve Maidstone Bus Station on The Mall and Sainsbury’s site when re-development of this area is viable.

2.6.6. The study provides background information on P&R services, including location, mode of operation and travel patterns and other relevant factors. The following elements are noted:

- Recent ticket sales on P&R services (2009) indicate that around 40% of the passengers travel during the peak period and 60% in the off peak;
- Overall, there are over 5,600 parking spaces available for public use within Maidstone, 40% of which are believed to be vacant on a regular basis;
- Fairmeadow [A229] is the principal vehicle corridor for traffic access to Maidstone town centre. This route primarily provides an important link for vehicular and service access to the town centre retail core, while also acting as a through road to the southern areas of Maidstone;
- Maidstone P&R has proved to be successful in traffic management, environmental and strategic terms. The P&R sites have significantly reduced the number of cars parking within the town centre at peak times. However, a subsidy is required to operate the P&R, reducing Council revenue;
- The recent introduction of the Fremlin Walk car park has also encouraged car-borne shoppers back into the town centre. Nevertheless, there is still a considerable amount of parking in Maidstone which is underutilised;
- There is the potential to improve parking, possibly through rationalising the existing unused parking spaces while implementing additional management measures. However, any rationalisation of car parking must consider the revenue implications, sustainability goals, increased rail passenger demand, and the accessibility and desirability of each location.

2.7 INFRASTRUCTURE DELIVERY PLAN (MAY 2016)

2.7.1. The infrastructure delivery plan suggests that the two P&R schemes proposed to be implemented on the edge of Maidstone between 2016 and 2020 (specifically at M20 J7 and at Linton Crossroads, Coxheath) in the Maidstone Integrated Transport Package (MITP) have now been deleted from the plan due to deliverability issues. Part of the secured budget is now provisionally reallocated towards the improvements to the junction of Willington Street and Wallis Avenue with the A274 Sutton Road.

2.8 MAIDSTONE INTEGRATED PARKING STRATEGY RESEARCH – APPRAISAL REPORT (2012)

2.8.1. Following on from their 2011 study, JMP undertook an Option Appraisal Report which presented the appraisal of potential scheme options to be included within the Integrated Transport Strategy.

2.8.2. As part of the study a Business Workshop was undertaken to understand the views of businesses in relation to current transport provision in the borough, one area of focus was specifically upon the issue of town centre car parking and tariffs. The outputs of the workshop indicated:

- Transport accessibility, and more specifically, vehicle accessibility, were considered much more important issues for business operations than parking charges.
- The impact of long-stay car parking charges will have limited impact upon retail shoppers and so will have limited effect on the attractiveness of the town as a retail destination.
- The long-stay charges will impact most upon commuters. It is, therefore, imperative to provide an integrated package of measures that provides an alternative means of access for commuters in to the town.
- Park & ride is considered an ideal alternative since it still allows individuals to drive to a park & ride, hence giving flexibility.
- Improvements to bus service provision will provide an alternative to commuters living within the urban fringe to travel into the town.

2.8.3. JMP also collected information from businesses via a questionnaire which indicated, similarly to the stakeholder engagement, that there is clearly an oversupply of parking in the town centre. The report concluded:

- The reduction of long stay car parking is considered to be an appropriate measure, but, again, only as long as it is supported by improved public transport provision.
- In terms of an overall package of measures, the restriction of town centre car parking and increased long-stay parking charges is considered to be imperative to developing a successful park & ride service.
- Experience from elsewhere around the UK has demonstrated that successful park & ride goes hand-in-hand with tight controls on town centre parking and parking tariffs.

3

BUS INTERCHANGE STUDY

3 BUS INTERCHANGE STUDY

3.1 INTRODUCTION

3.1.1. This study follows an initial assessment, conducted by MBC, to identify future improvements to bus interchanges in the Borough and which was reported to the Strategic Planning and Sustainability and Transport Committee as the “Maidstone Bus Station Options Appraisal” on 7th February 2017.

3.1.2. Including the existing Bus Station, twelve sites were identified by MBC and based on an initial high level appraisal, it was recommended that the following sites be taken forward for further consideration to improve bus facilities:

- Maidstone Bus Station (The Mall)
- Maidstone East Station (short term)
- Maidstone East Station / Royal Mail Redevelopment
- King Street On Street
- The Broadway Centre
- Sittingbourne Road Park and Ride site

CONTEXT

3.1.3. The current Bus Station is owned by Capital and Regional, a specialist real estate investment trust (REIT), as it is part of The Mall shopping centre (originally built in 1976 and known as the Chequers Centre).

3.1.4. The main focus of this study is to assess the current bus station and consider potential alternative and/or additional bus transport interchanges in the Town Centre, as well as examining the level of bus interchange provided at the railway stations across the rest of the Borough.

3.1.5. In essence the study will consider 4 distinct options, from the perspective of optimising bus infrastructure:

- Optimising the existing Bus Station (The Chequers);
- Alternative off-street single facility;
- Alternative on-street options (e.g. removing the existing bus station and providing for all bus services on High Street / King Street); and
- Alternative multiple sites, creating smaller-scale ‘bus hubs’, e.g. at Maidstone East Railway Station.

3.1.6. Maidstone, in addition to being the only town in the Borough, is also the County Town of Kent. According to the 2011 Census, there were 107,627 residents in the Maidstone Built Up Area (BUA) and 155,143 residents in the Maidstone Borough as a whole.

3.1.7. The Census data has been interrogated further to understand local modes of travel (i.e. reliance on private vehicles compared to public transport) on journeys to work.

Table 2 - QS703EW Method Of Travel To Work (2011 Census Data)

Method of Travel to Work	Maidstone BUA		Maidstone Borough	
	Count	Percentage	Count	Percentage
Work mainly at or from home	5,260	10%	9,110	12%
Underground, metro, light rail, tram	65	0%	113	0%
Train	2,864	5%	5,073	6%
Bus, minibus or coach	2,468	5%	2,881	4%
Taxi	162	0%	193	0%
Motorcycle, scooter or moped	368	1%	533	1%
Driving a car or van	32,245	60%	47,188	60%
Passenger in a car or van	2,810	5%	3,719	5%
Bicycle	762	1%	914	1%
On foot	6,914	13%	8,093	10%
Other method of travel to work	189	0%	273	0%
Total	54,107	100%	78,090	100%

3.1.8. Given the proportion of the Borough's population which lives in the Maidstone BUA (just over two-thirds), it is logical that the mode shares are very similar for the BUA as for the Borough as a whole. The main variations are more working from home and commuting by rail across the Borough as a whole than in the BUA and more walking and bus use in the BUA than across the Borough as a whole.

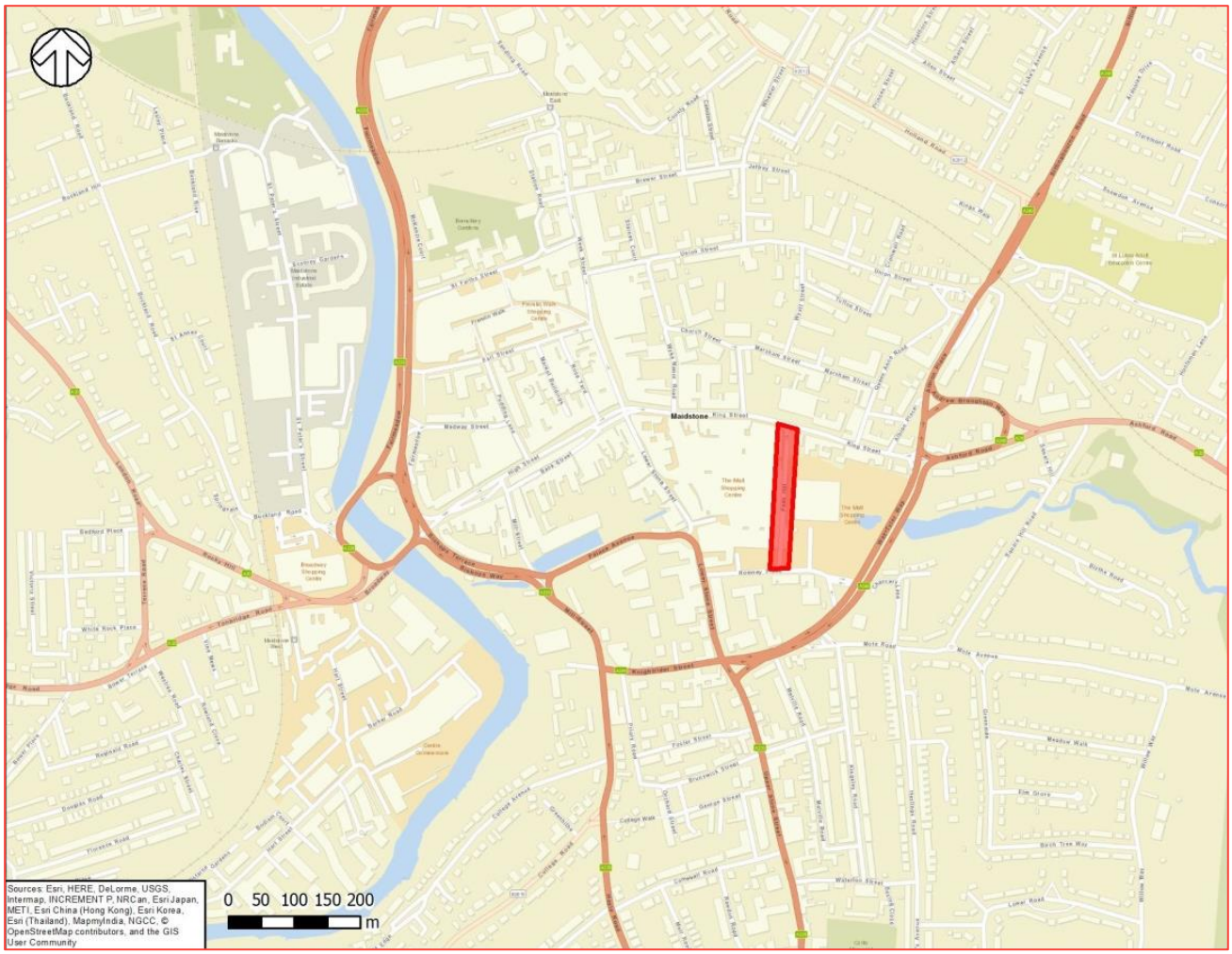
3.1.9. As reviewed in the following chapter, current planning documents anticipate that the Borough will experience significant residential and employment growth, and therefore the effects of further congestion in the future could affect travel to work mode choice.

3.2 EXISTING CONDITIONS

INTRODUCTION

3.2.1. The existing Bus Station (also still known locally as 'The Chequers') is located within The Mall Maidstone shopping centre. The Bus Station creates a link between King Street (to the north) and Romney Place (to the south), and is provided on the alignment of Pad's Hill. Figure 1 shows the location of the Bus Station within the Town Centre.

Figure 1 – Bus Station Location Plan

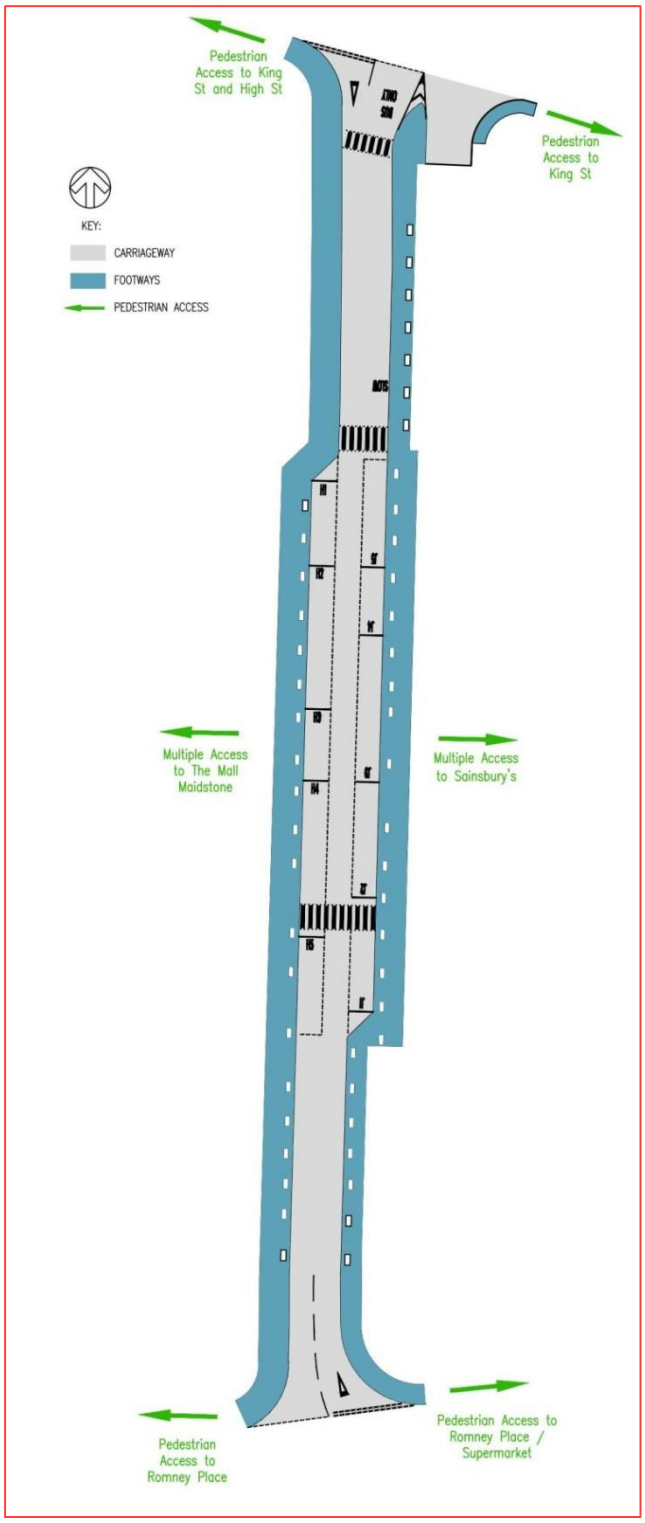


3.2.2. The Bus Station currently operates as two parallel rows of contiguous bus stops, with a single relatively narrow running lane (for buses in both directions) in between. Bus stop numbers H1 to H5 are in the southbound direction whilst numbers J1 to J6 are in the northbound direction, giving a total of 11 bus stops, although H5 and J6 are both noted on bus station information to be set-down stops only. Other signage indicates a total of 15 stops (J1 to J8 and H1 to H7), however this is understood to be outdated and does not match the information displays or road markings within the bus station.

3.2.3. Buses access the Bus Station via slopes at either end and there are currently no formal spaces dedicated to bus layover. Buses do layover at both entrances in order to alleviate congestion and crowding at the bus stops, although this in turn can cause an obstruction to moving buses.

3.2.4. Although the Bus Station is owned by Capital and Regional (The Mall), use of the Bus Station is in principle open to any operator of a local or long distance bus service. In practice it is used mainly by Arriva, who have an operational control office at the Romney Place end of the building, with Nu-Venture being the other scheduled user on a daily basis. The current layout of the Bus Station is shown in Figure 2.

Figure 2 – Current Bus Station Layout



3.2.5. The characteristics of the Bus Station can be summarised as follow:

- Integral part of shopping centre building, with access to both floors (and adjacent to Sainsbury's supermarket);
- Covered waiting facilities with sliding doors at each bus stop;

- Seating facilities are provided on both sides of the station;
- Natural and installed lighting (although the latter is somewhat ineffective even on bright days);
- Snack kiosk located on The Mall side of the waiting area;
- Public toilets are within the shopping centre;
- Buses (and servicing access) only;
- Buses can access and from both ends (with no restricted turns); and
- 11 marked parallel bays, 2 of which are set-down only (drive in drive out – 'DIDO').

3.2.6. Notwithstanding the facilities mentioned above, the general appearance of the Bus Station is that it lacks clean, attractive and high-quality waiting facilities, the lighting over the area used by buses is poor (being orange and insufficient) and the overall experience is not one which would encourage use by existing or potential bus passengers. For example, there are no real time information displays and overall the static information on display is not presented consistently or maintained.

BUS STATION SITE ACCESSIBILITY

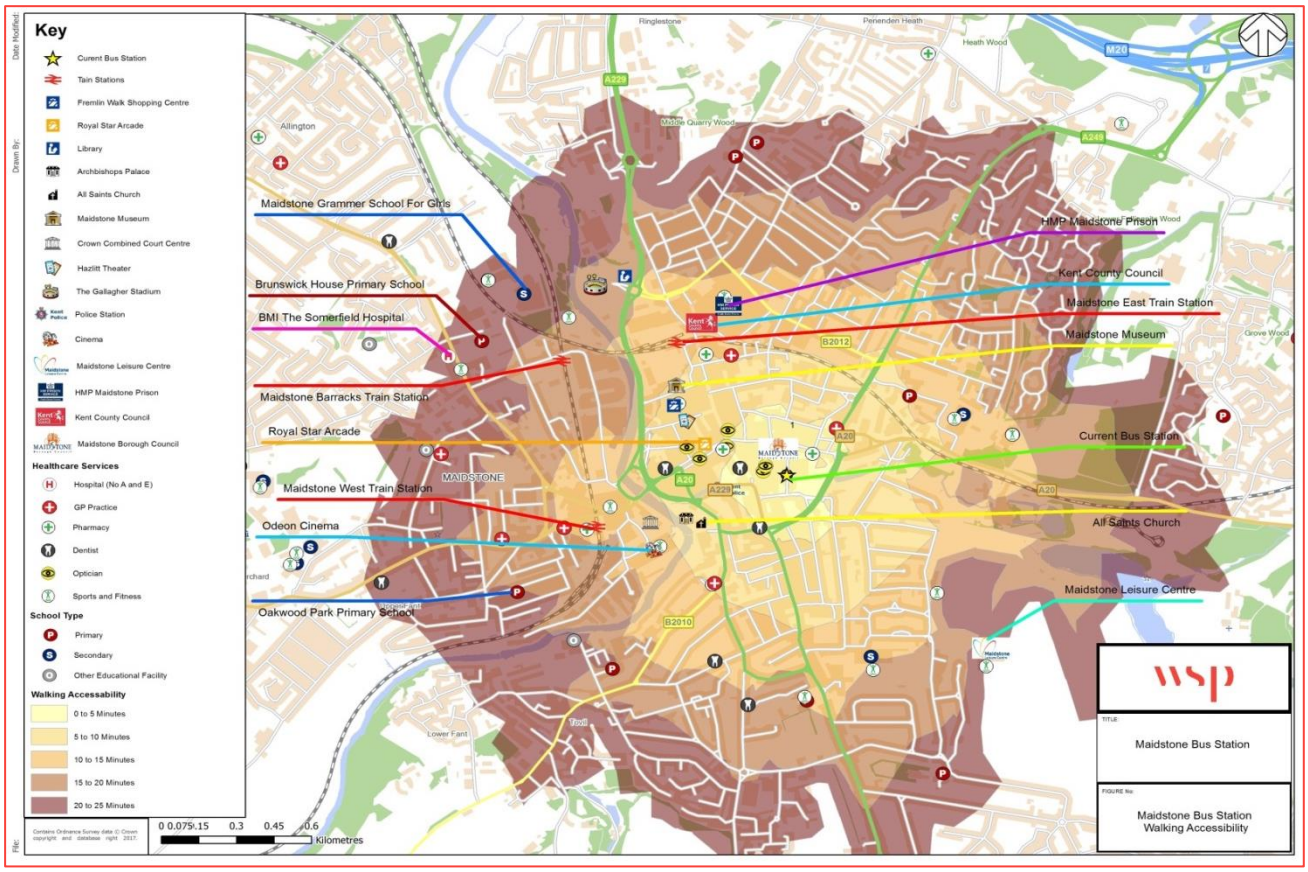
3.2.7. Relative to the Town Centre rail stations, the Bus Station is located approximately 800m walking distance from Maidstone East Station, 1.3km walking distance from Maidstone Barracks Station and 1.0km walking distance to Maidstone West.

3.2.8. Furthermore, the Bus Station is located in close proximity to the High Street and the main pedestrianised shopping areas of Week Street and Gabriel's Hill. Figure 3 shows the location of the Bus Station within the Town Centre and in relation to existing local facilities. The map further shows walking isochrones, centred from the Bus Station, in bands of 5 minutes, up to 25 minutes.

3.2.9. Figure 3 demonstrates that the Bus Station is located in a very central position with the Town Centre, at reasonable walking distance to many key facilities and amenities, such as the main shopping areas and other public amenities, such as the borough and county council offices.

3.2.10. In addition to being destinations for customers and visitors, it should also be noted that Kent County Council and Maidstone Borough Council are understood to be the two largest employers in the town centre and their staff car parking policies already contribute to the usage and mode share of public transport, including the Park and Ride.

Figure 3 – Maidstone Bus Station Location - Walking Isochrones



BUS STATION CONDITION AND OPERATION

3.2.11. The immediate first impression for any visitor to the Bus Station is that it is showing clear signs of aging and consequently does not provide a welcoming or positive image of bus travel in Kent. Site visits were made to the Bus Station during the AM and PM peak period during school term time in order to observe the maximum number of passenger and vehicle movements.

3.2.12. The site visits confirmed a number of points raised in related documents and discussions with key stakeholders. Figure 4 shows the current bus stops and typical waiting facilities within the pedestrian areas, along with the entrance from Romney Place.

Figure 4 – Existing Maidstone Bus Station (The Chequers)

Bus Stops and marked pedestrian crossing

Waiting Facilities on east side of bus station

Access from Romney Place – demonstrating lack of formal layover spaces

Customer Perspective

3.2.13. The general appearance of the bus station is dark and dirty. While litter-picking patrols are carried out by cleaners employed by The Mall, cleaning above floor level is generally poor with not all issues being as a result of the proximity of diesel-powered vehicles (e.g. cobwebs and bird excrement).

3.2.14. Cleaning of the otherwise unused space between the east side of the bus station and Sainsbury's appears to be particularly infrequent, which may be due to the difficulty of access, although the appearance is not helped by the predominant use of concrete surrounding the open water.

Figure 5 – Space between bus station and Sainsbury's

3.2.15. Even at peak times, there is generally enough waiting space (although not necessarily seating) for intending passengers at each stop.

3.2.16. Despite the sufficiency of waiting space, passengers were observed waiting on the bus side of the automatic doors (on the metal barriers) when space was available on the waiting area side of the automatic doors.

3.2.17. Information provision is limited to static printed displays with the semi-permanent and permanent information provided by The Mall noted for being particularly out of date and inconsistent.

3.2.18. Pedestrian crossing points are marked but due to the general constraints of the bus station, these require passengers to step round or between stationary buses into the path of moving vehicles, without clear sight either from or of the pedestrians.

3.2.19. Although at a relatively low volume, pedestrian movements took place within the bus station which were away from the designated crossing points, not all of which were made by schoolchildren. The existing signage could also be stronger on the point of pedestrian safety.

3.2.20. Despite the negative aspects of the bus station, it is issued by a steady flow of passengers and substantial numbers at peak times.

Operational Perspective

3.2.21. There are no designated layover bays within the formal marked area of the bus station, requiring buses to layover on the approach to either entrance, causing additional obstructions to a clear view of the stops and any stray pedestrian movements.

3.2.22. All services are currently operated by buses which are at least 10 metres long and, apart from stop H3 which is not currently scheduled to be used by any services, there is effectively no space between consecutive stops. This layout makes it almost impossible for buses using the stop in front of an occupied stop to pull in within the marked bay.

3.2.23. The combination of the relatively narrow two-direction central running lane and the difficulty of buses pulling entirely parallel to the correct stop causes short-term delays to buses in both directions.

3.2.24. Some stops experience buses double-parking in order to load passengers, particularly when services are delayed.

3.2.25. Some passengers are dropped off at the entrance to the bus station, dependent upon whether the bus is due to layover and if the correct stop is clear.

3.2.26. During heavy rain, the condition of the road surface in places causes puddles and there is a small amount of leakage from the roof.

3.2.27. In addition to buses (and Arriva's Engineering Support vehicle), a cash delivery van was observed in the bus station (in the morning peak), facing the wrong way for the west side of the bus station.

EXISTING BUS SERVICES

3.2.28. Although the bus station can be accessed from two-way roads to both the north and the south, it is it not currently used by all operators and services which run in the Town Centre. For example, the Park and Ride services (operated by Arriva under contract to MBC) pass along King Street, as does the inter-urban service to/from Ashford (operated by Stagecoach) and the National Express service between London and Dover. The Arriva 'Sapphire' service to the Medway Towns (the most frequent inter-urban service) has also been relocated away from the bus station in recent times.

3.2.29. The reasons for services not using the bus station include it not being on the most direct route through the town centre (and the difficulty of navigating through traffic on roads necessary to reach the Bus Station) and the operational constraints of using stops in the Bus Station (e.g. lack of layover space), compounded by the general unattractive nature of the bus station itself.

3.2.30. In addition to Arriva, the only other operator scheduled to use the bus station on a daily basis is Nu-Venture, although this is largely related to the supported service contracts held with KCC. Autocar use the bus station for a single journey on a Tuesday, again related to a KCC contracted service.

3.2.31. Table 3 lists the current services which use stops within the Bus Station, along with the name of the operator. As mentioned above, scheduled timetable information indicates that only bus stops H1, H2 and H4 are in use northbound. For southbound stops, the scheduled timetable information indicates that J1, J3, J4 and J5 are in use, although within the bus station timetables are on display for current services at stop J2. Stops H5 and J6 are noted as being set-down only stops.

3.2.32. Although buses which find their stop occupied by another bus could in theory use an alternative stop in the same direction, observations indicate that buses will either wait for the stop to become clear or double-bank in order for passengers to see that their bus has departed from the correct stop.

Table 3 - Bus Services at each bus stop

Stop	Service	Routes	Service Operator
H1	1	Barming - Fant - Maidstone	Nu-Venture
	3	Maidstone - Maidstone Hospital	Arriva Kent & Surrey
	6	East Peckham - Paddock Wood - Pembury - Tunbridge Wells	Arriva Kent & Surrey
	6x	Maidstone - Maidstone Hospital - Tunbridge Wells Hospital	Arriva Kent & Surrey
	7	Maidstone - Mereworth - Hadlow - Tonbridge - Tunbridge Wells	Arriva Kent & Surrey
	23	Yalding - Laddingford - East Farleigh - Tovil - Maidstone	Nu-Venture
	26	Yalding - Hunton - Tovil - Maidstone	Nu-Venture
	28	Marden - Maidstone	Nu-Venture
	60	Maidstone - Allington - Palace Wood - Maidstone Hospital	Arriva Kent & Surrey
	78	Maidstone - Barming - Maidstone	Nu-Venture
	266	Maidstone - Wateringbury - Lamberhurst - Kilndown	Autocar Bus & Coach
	505	Maidstone Town Centre - Lockmeadow Market	Arriva Kent & Surrey
H2	24	Sandhurst - Headcorn - Maidstone	Arriva Kent & Surrey
	58	Maidstone - East Malling - West Malling - Ryarsh - Addington - Wrotham Heath	Arriva Kent & Surrey
	71	Maidstone - Allington - Larkfield - Lunsford Park - Snodland	Arriva Kent & Surrey
	72	Maidstone - Allington - Larkfield - East Malling - West Malling - Kings Hill	Arriva Kent & Surrey
	570	Maidstone - Allington - Larkfield - West Malling - Offham - Wrotham	Arriva Kent & Surrey
	572	Maidstone - Allington - Larkfield - Kings Hill	Arriva Kent & Surrey
	576	Maidstone - Allington - Larkfield - West Malling - Kings Hill	Arriva Kent & Surrey
H4	9	Maidstone - Vinters Park - Grove Green - Madginford - Bearsted	Arriva Kent & Surrey
	101	Maidstone - Chatham - Gillingham (- Twydall)	Arriva Kent & Surrey
	155	Maidstone - Aylesford - Borstal - Rochester - Chatham	Nu-Venture
	155	Maidstone - Aylesford - Borstal - Rochester - Chatham	Arriva Kent & Surrey
	333	Maidstone - Detling Hill - Sittingbourne - Faversham - Oare	Arriva Kent & Surrey
	334	Maidstone - Detling Hill - Sittingbourne - Iwade - Sheerness	Arriva Kent & Surrey
J1	58	Addington - Wrotham Heath - Ryarsh - West Malling - East Malling - Maidstone	Nu-Venture
	85	Maidstone - Senacre Wood	Arriva Kent & Surrey
	572	Kings Hill - West Malling - Larkfield - Allington - Maidstone Boys Grammar	Arriva Kent & Surrey
	575	Kings Hill/West Malling/Snodland - Larkfield - Maidstone	Arriva Kent & Surrey
J3	12	Maidstone - Headcorn - Tenterden	Arriva Kent & Surrey
	13	Maidstone - Otham - Leeds - Hollingbourne	Nu-Venture
	13	Maidstone - Otham - Leeds - Hollingbourne	Arriva Kent & Surrey
	24	Maidstone - Headcorn - Sandhurst	Arriva Kent & Surrey
	82	Maidstone - Park Wood	Arriva Kent & Surrey
	333	Oare - Faversham - Sittingbourne - Detling Hill - Maidstone	Arriva Kent & Surrey
J4	5	Maidstone - Staplehurst - Cranbrook - Hawkhurst - Sandhurst	Arriva Kent & Surrey
	59	Maidstone - Boughton Monchelsea - Grafty Green	Arriva Kent & Surrey
	65	Maidstone - Cornwallis Academy - Sutton Valence	Nu-Venture

Stop	Service	Routes	Service Operator
	89	Maidstone - Loose - Coxheath	Arriva Kent & Surrey
J5	4	Maidstone - Shepway - Downswood	Arriva Kent & Surrey
	22	Maidstone - Tovil - East Farleigh - Gallants Lane - Hunton - Chainhurst	Nu-Venture
	23	Maidstone - Tovil - East Farleigh - Yalding - Laddingford	Nu-Venture
	25	Maidstone - Tovil - Gallants Lane - Hunton - Yalding - Laddingford - Marden - Goudhurst	Nu-Venture
	26	Maidstone - Tovil - Hunton - Yalding - Laddingford	Nu-Venture
	27	Maidstone - Marden - Goudhurst	Nu-Venture
	28	Maidstone - Marden	Nu-Venture

BUS TIMETABLE ANALYSIS

Scheduled Bus Movements

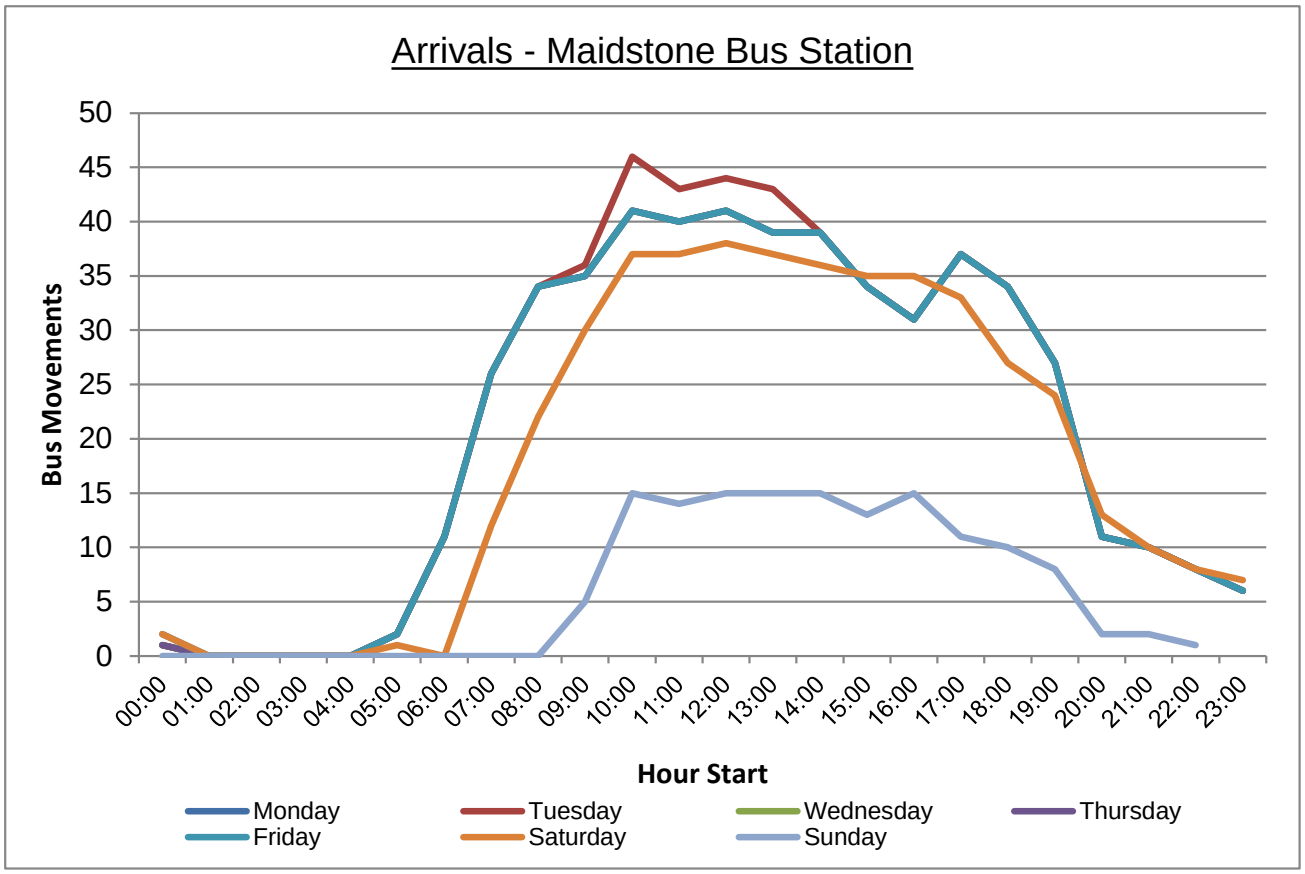
3.2.33. The following section outlines the general operation of the bus station based on analysis of bus service timetables (April 2017). Timetables will of course change over time and the overall task of the study is not to reschedule existing services but to understand in broad terms the general pattern of bus services now and in the future and which would need to be accommodated by any revised bus interchange facilities. Figure 1 and Figure 7 show service arrivals and departures broken-down by the day of the week.

3.2.34. During the week, Maidstone Market takes place every Tuesday and it is this which is understood to give rise to it having the highest number of arrivals and departures on weekdays, with the difference from other weekdays being between 08:00 and 15:00.

3.2.35. This analysis is based on the scheduled timetable information, therefore within the data any layover or other out of service movements, such as to or from a depot or layover area (such as the coach park in Sittingbourne Road Car Park), do not have a public arrival/departure movement and are therefore not included in the analysis.

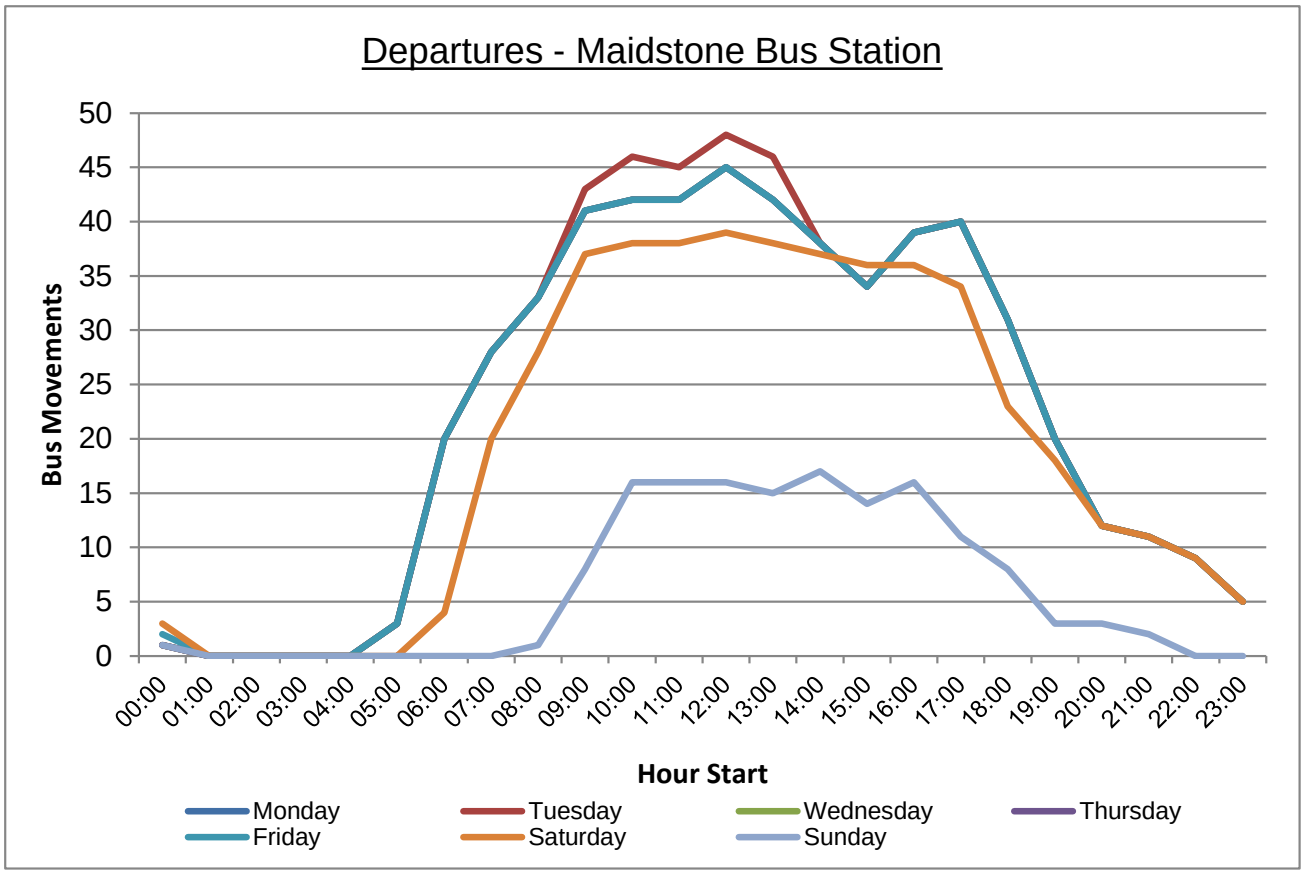
3.2.36. The data does also not include any infrequent or ad-hoc movements e.g. if any tour coach uses the bus station.

Figure 6 – Existing Maidstone Bus Station Arrivals by Day of Week



Source: TRACC software – traveline Data (April 2017)

Figure 7 – Existing Maidstone Bus Station Departures by Day of Week



Source: TRACC software – Traveline Data (April 2017)

3.2.37. Note: Mondays, Wednesdays, Thursdays and Fridays have an identical departure and arrival pattern and are therefore represented in Figure 6 and Figure 7 as a single line, as Monday.

3.2.38. The timetabled data shows that the bus station has 507 arrivals per day Mondays, Wednesdays, Thursdays and Fridays, with 523 arrivals on Tuesdays. There are 444 arrivals on Saturdays and 141 arrivals on Sundays.

3.2.39. Similarly, the scheduled timetable data shows that there are 536 departures on Mondays, Wednesdays, Thursdays and Fridays and 552 departures on Tuesdays. On Saturdays, there are 466 departures and 147 departures on Sundays.

3.2.40. It is noteworthy that for both arrivals and departures, and even on days other than Tuesday, the highest number of bus movements actually occurs between the traditional AM and PM peak periods indicating that at least in terms of buses (if not passengers) the busiest time is after the AM peak until the early afternoon.

Busiest Bus Station Movements – Tuesdays

3.2.41. Table 4 provides a further analysis of bus movements on Tuesdays, which represents the current "worst case scenario" in terms of demand for space (when additional services are provided to serve market day).

Table 4 - Maidstone Bus Station – Tuesday 2-way Bus Movements

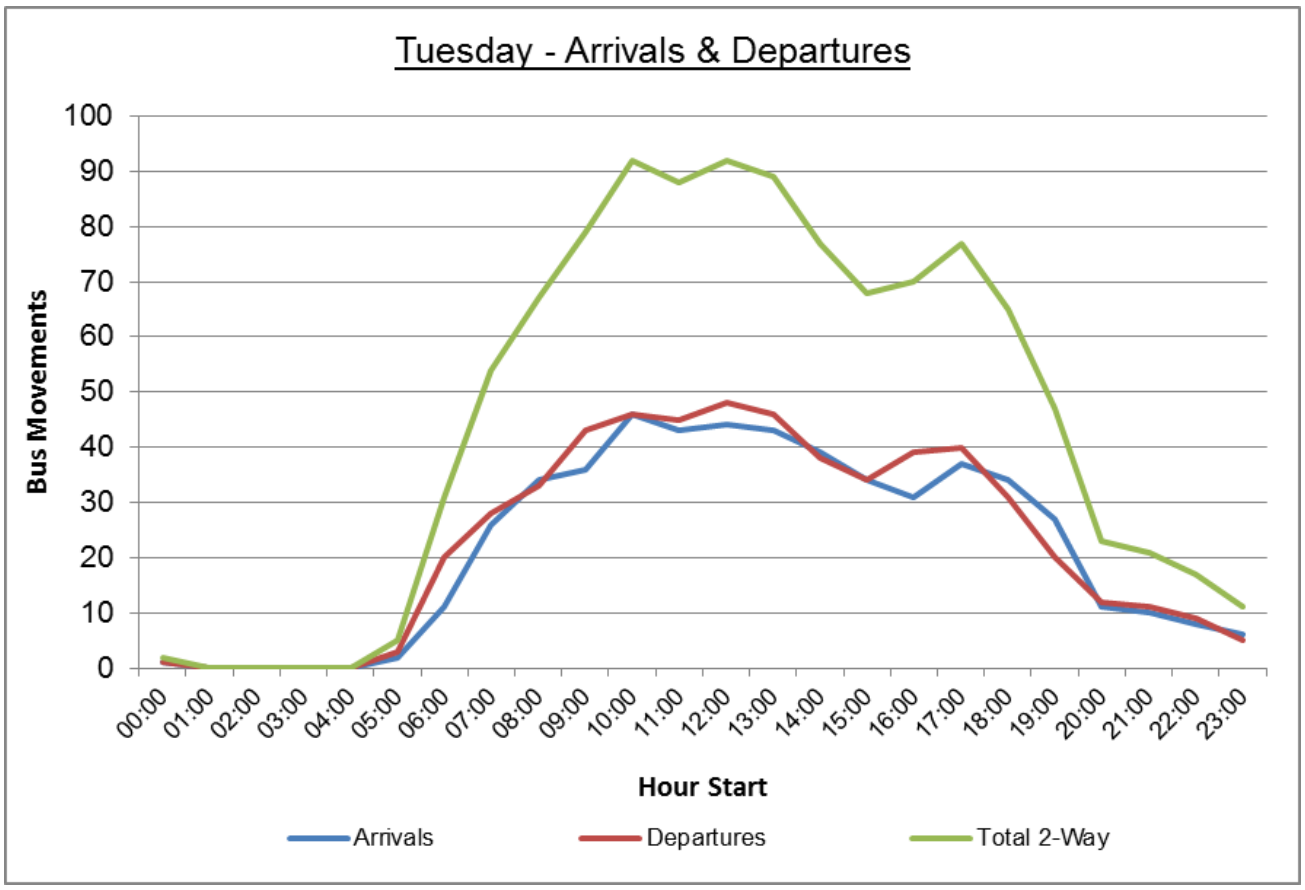
Time Period	Arrivals	Departures	Total
AM Peak Hour 0800-0900	34	33	67
Absolute Peak Hour 1200-1300	44	48	92
PM Peak Hour 1700-1800	37	40	77
Daytime Total 0700-1900	447	471	918
Daily 24 hours	523	552	1075

Source: TRACC software – Traveline Data (April 2017)

3.2.42. The timetable data indicates that the bus station's single busiest hour is between 12:00 and 13:00, with 92 2-way bus movements on a Tuesday, and that during the 'normal' weekday peak hours there are 67 2-way movements between 08:00 and 09:00 and 77 2-way movements between 17:00 and 18:00.

3.2.43. Figure 8 also shows traffic movements at the bus station on a Tuesday according to the scheduled timetable data.

Figure 8 – Timetabled 2-way bus movements (Tuesday)



3.2.44. If the 471 daytime departures were spread equally across hours of the day and stops, it would equate to an average of 3.6 buses per stop per hour. Of course, this is only a theoretical figure as it does not take account of any varying frequencies during that time, the routing of services or other factors such as the commonality of destination between multiple services. Nevertheless, it gives an indication of the typical usage made of the current bus station by the existing network.

3.2.45. In order to put the current use of Maidstone Bus Station in context, the best practice document "Good Practice Guide for Bus Station Design", Martin Robertson Bursary (2007) provides guidance on the theoretical capacity of each bus bay.

Table 5 - Guideline Bus Bay Capacities

Bus Bay Capacity by Type	Bus per Hour Capacity	
	Desirable	Maximum
Through Bays (DIDO)	8	12
Drive In Reverse Out (DIRO)	6	8

Source: Good Practice Guide for Bus Station Design (2007)

3.2.46. Therefore, the current anticipated theoretical capacity of Maidstone Bus Station would be between 88 (desirable) and 132 (maximum) bus services per hour, before consideration is given to bus routing (i.e. north or southbound), commonality of destination between services etc.

3.2.47. It is also noted that the above guidelines typically relate to managed bus stations with co-ordinated timetables and therefore the capacity does not account for operational delays and other disruptions to the bus network.

3.2.48. The guide also presumes that the design and layout of the bus bays is of a standard which facilitates safe, reliable and easy access, which the constraints of the existing bus station do not quite allow.

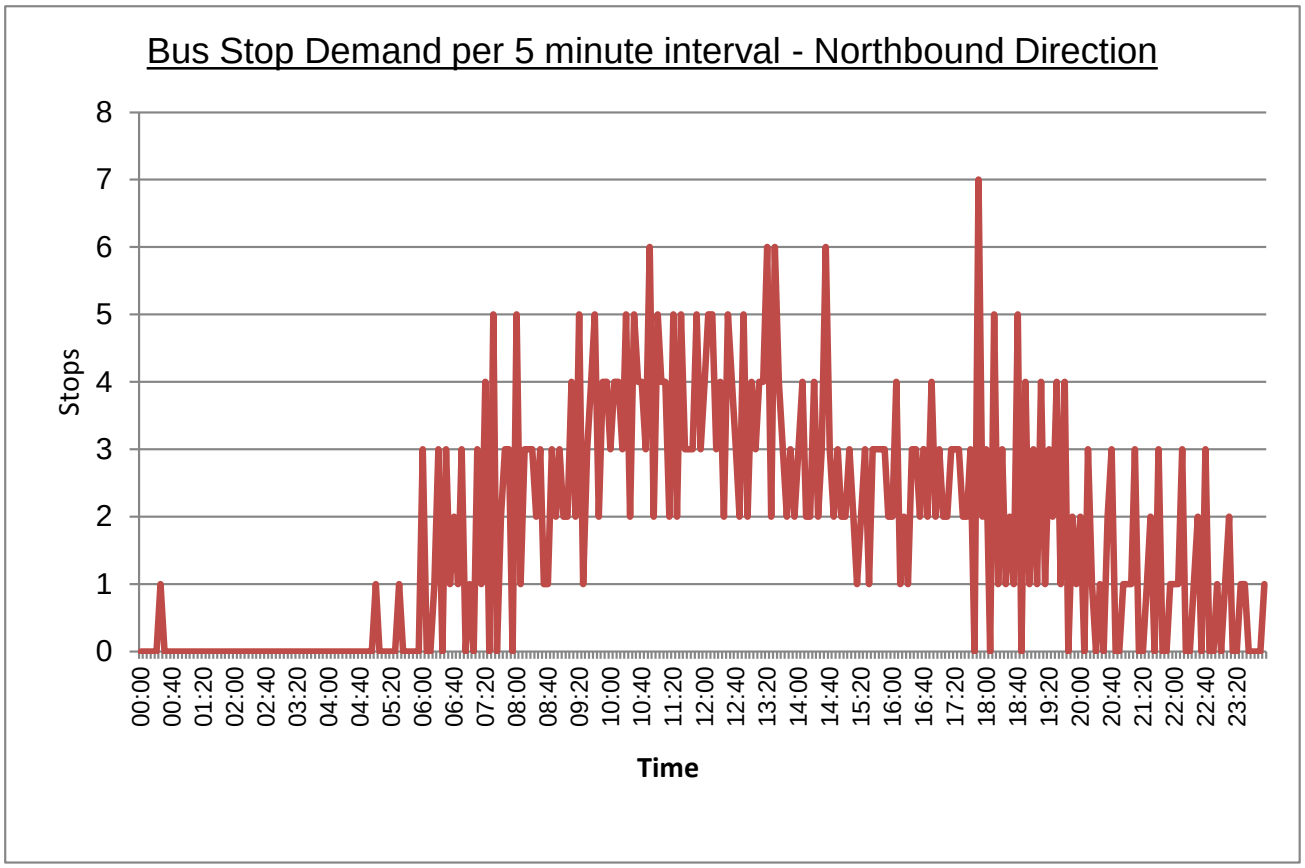
Bus Stop Utilisation

3.2.49. As noted above, utilisation of the individual bus stops is dependent upon the exact timetable and allocation of services to common stops. From the timetable data, it is possible to identify that more buses head in the northbound direction from Romney Place to King Street (approximately 58% of movements), consequently requiring greater use of stops H1-H5 than stops J1-J6.Figure 9 and Figure 10 show within each 5-minute interval, the number of stops which are needed to provide for all services. As noted above, the timetable data does not indicate how long any departing buses may have been laying over at the stops and therefore pressure on space may be more acute than shown.

3.2.50. This analysis does however demonstrate that within the time period 17:50 – 17:55 stops H1 – H5 have the most intensive usage, with 7 departures within that time, albeit that in the 5 minute periods either side of that, the number of departures is 0 and 2 respectively. With only 3 northbound stops currently in active use, during periods with 6 departures all of the stops would have to be used twice to achieve an equal distribution, with a departing window of up to 2.5 minutes each. Again, this is theoretically possible in terms of allocation of services to stops but does not give much leeway and accordingly, any delays or operational disruptions are likely to exacerbate the challenge of all buses accessing the correct stop without blocking the rest of the bus station.

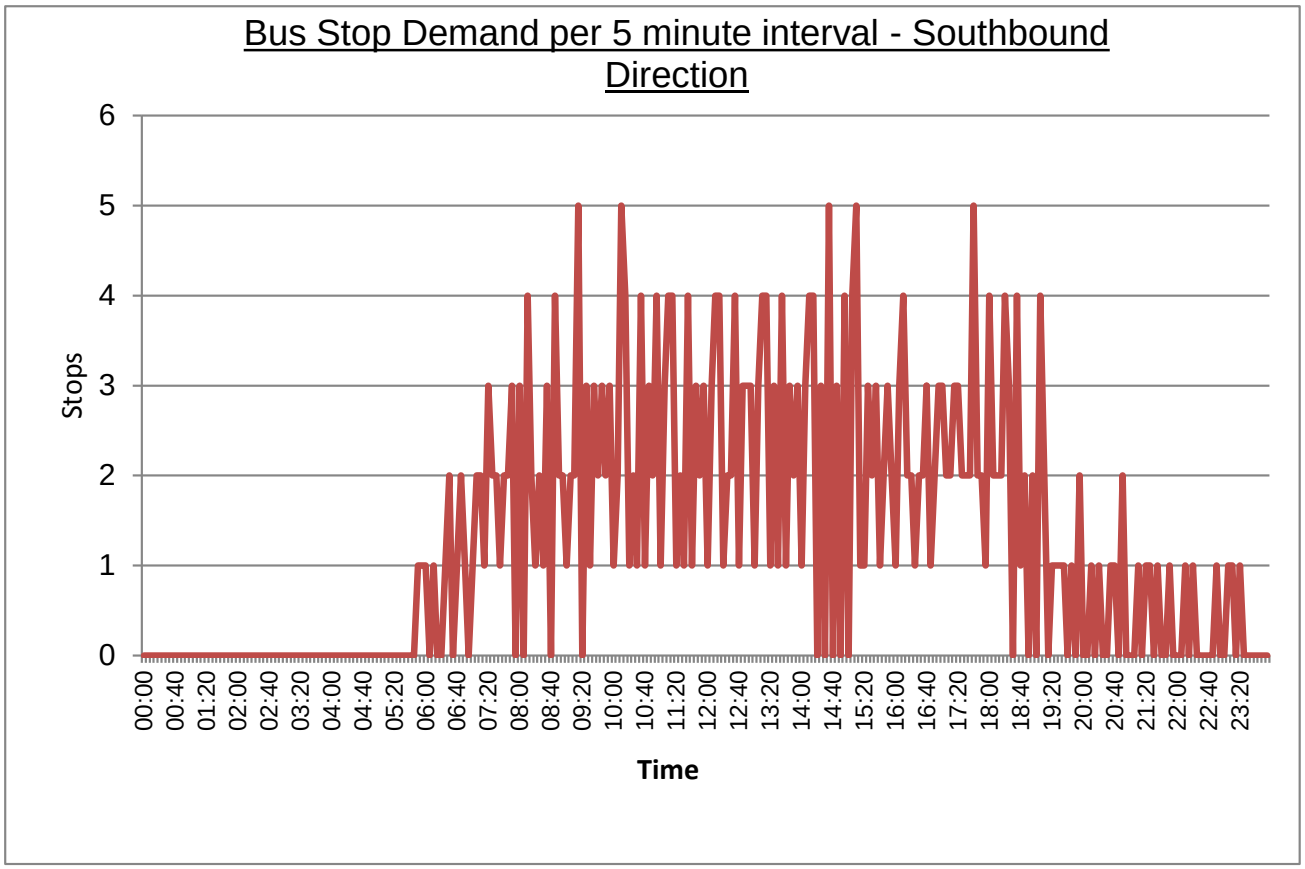
3.2.51. In the early morning and evening there is a clear pattern of usage of at least 3 bus stops, rising to 4 or 5 stops during the main body of the day.

Figure 9 – Bus Stop Occupation – Northbound Direction – Stops H1 to H5



3.2.52. For the southbound direction, bus stop utilisation is clearly lower with a peak of 5 stops used in any 5 minute period, while during the main body of the day there is a requirement for 3 or 4 stops, as shown in Figure 10.

Figure 10 – Bus Stop Occupation – Southbound Direction – Stops J1 to J6

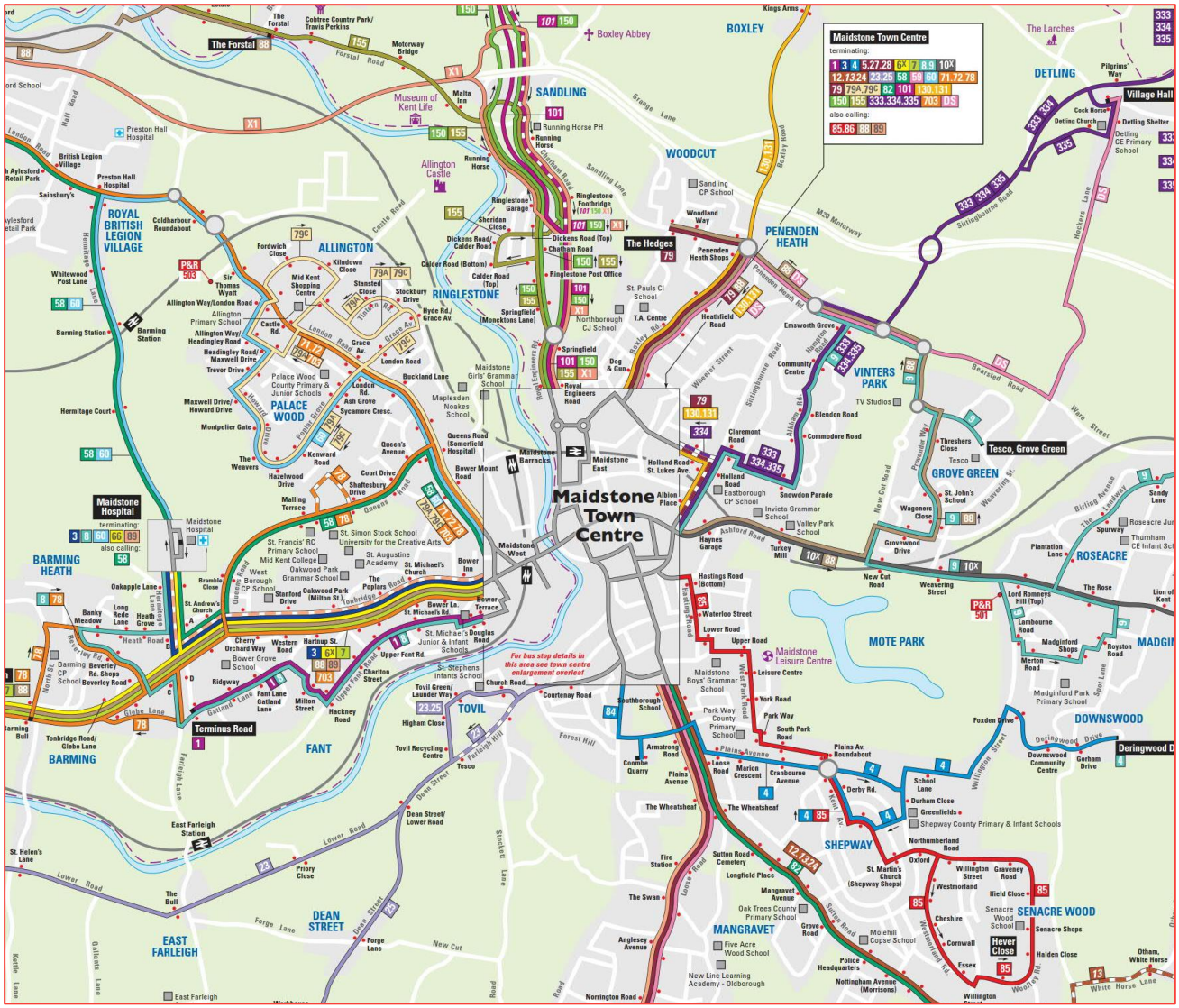


CURRENT BUS ROUTE ANALYSIS

3.2.53. This section provides a desktop analysis of the coverage and extent of the local bus network in Maidstone and particularly the combined volume of bus services along key roads within the Town Centre, which is necessary to understand the impact of options to relocate the bus station and/or allocate more buses to on-street stops.

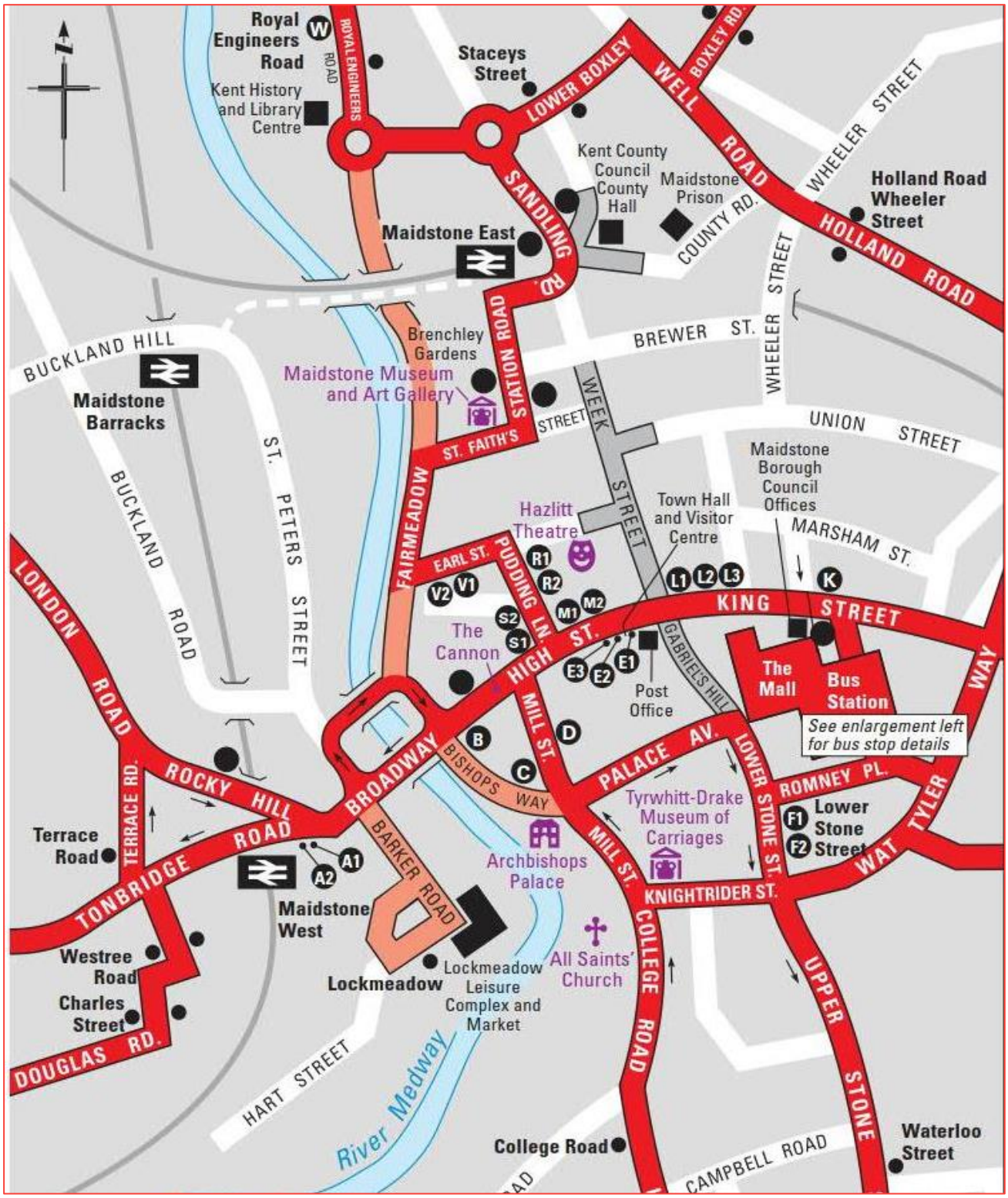
3.2.54. Figure 11, which is an extract of the local bus map produced by KCC, shows the geographic extent of local bus routes across Maidstone BUA, with Figure 12 showing the network of roads and streets currently in use as bus routes within the Town Centre, together with the location of bus stops.

Figure 11 – Map of Bus Routes in Maidstone



Source: Kent County Council (April 2017)

Figure 12 – Map of Bus Routes in Maidstone Town Centre



Source: Kent County Council (April 2017)

3.2.55. Using the timetable data (for a weekday between 12:00 – 13:00 which is the busiest hour), Figure 13 shows the current level of bus services on the roads and streets approaching the Town Centre, for all services serving Maidstone and not only those accessing Maidstone Bus Station. The data shown (in the blue circles) is the number of buses stopping at each stop per hour and so the larger the bus stop is, the higher the frequency of bus services at the stop.

3.2.56. This analysis demonstrates that the bus station is already the single busiest location on the bus network (as it would be reasonable to assume) with 78 buses in the hour but that High Street is very close behind with a total of 68 bus in the hour, spread over only 5 stops.

Figure 13 – Current Maidstone Bus Network – Number of 2-Way Buses per hour - Weekday 1200-1300

Source: TRACC software – traveline Data (April 2017)

3.2.57. Table 6 summarises the existing volume of bus services along key radial routes to/from the Town Centre. This confirms that key radial routes such as the A20 London Road and A26 Tonbridge Road to the west, the A229 and Week Street to the north and the A229 one way system (Upper Stone Street and Hayle Road) to the south are the most heavily used by buses.

Table 6 - Bus frequencies on key routes (Weekday 1200 – 1300)

Road / Street	Bus Stop Name	Travel Direction	Buses
Week Street	Maidstone East Railway Station	Northbound	12
		Southbound	8
		2-way	20
A429 Sittingbourne Road	Holland Road	Northbound	4
		Southbound	8
		2-way	12
A20 Ashford Road	Turkey Mill	Westbound	1
		Eastbound	1
		2-way	2
Hastings Road	Crompton Gardens	Northbound	6
		Southbound	6
		2-way	12
A229 Upper Stone Street	Waterloo Street	Southbound	17
A229 Hayle Road	Hayle Road	Northbound	16
A20 Broadway	Maidstone East Railway Station	Westbound	26
A20 London Road	Rocky Hill	Southeast	24
A26 Tonbridge Road	Bower Lane	Westbound	8
		Eastbound	7
		2-way	15
A20 London Road	Somerfield Hospital	Northbound	11
		Southbound	8
		2-way	19

3.2.58. More detailed consideration of bus and rail integration will be presented in Chapter 5, but it is noted clearly from Figure 12 that no bus services serve Maidstone Barracks rail station; the closest stops are on the A20 London Road (Somerfield Hospital), a walking distance of approximately 500m. Maidstone East and Maidstone West rail stations are however both located on roads which are primary bus routes.

3.3 FUTURE DEVELOPMENT OPTIONS

INTRODUCTION

3.3.1. Work carried out by MBC for the “Maidstone Bus Station Options Appraisal” identified some potential sites for the introduction of one or more improved bus station interchanges.

3.3.2. With the aim of identifying a suitable site to act as a passenger facility as well as an operational base, it is important to take into account the local urban background, particularly given the current bus station is well located for the existing pattern of retail development in the Town Centre.

3.3.3. The location of a conventional bus station, or other form of transport 'hub', needs to enable passengers to access, within close walking range, the key facilities and amenities provided in the Town Centre. In addition, to promote 'door to door' journeys by all forms of public transport, the location should also ideally be in close walking range of at least one of the main railway stations.

3.3.4. As with most towns and cities, constraints on available space will limit the scope for introducing a bus interchange on some sites within the compact and economically-active urban area. Land availability and ownership will also dictate the deliverability of a bus station or other interchange, however at this stage, such as assessment is not required as part of this strategic study.

3.3.5. The short-listed options cover the following sites, with the Town Centre location of these sites shown in Figure 14 and the location of the out of town site shown in Figure 15:

- Maidstone Bus Station (The Mall);
- Maidstone East Station (either short term or Royal Mail Redevelopment);
- King Street (On-street);
- The Broadway Centre; and
- Sittingbourne Road, Park and Ride site.

Figure 14 – Potential Bus Interchange Sites – Town Centre

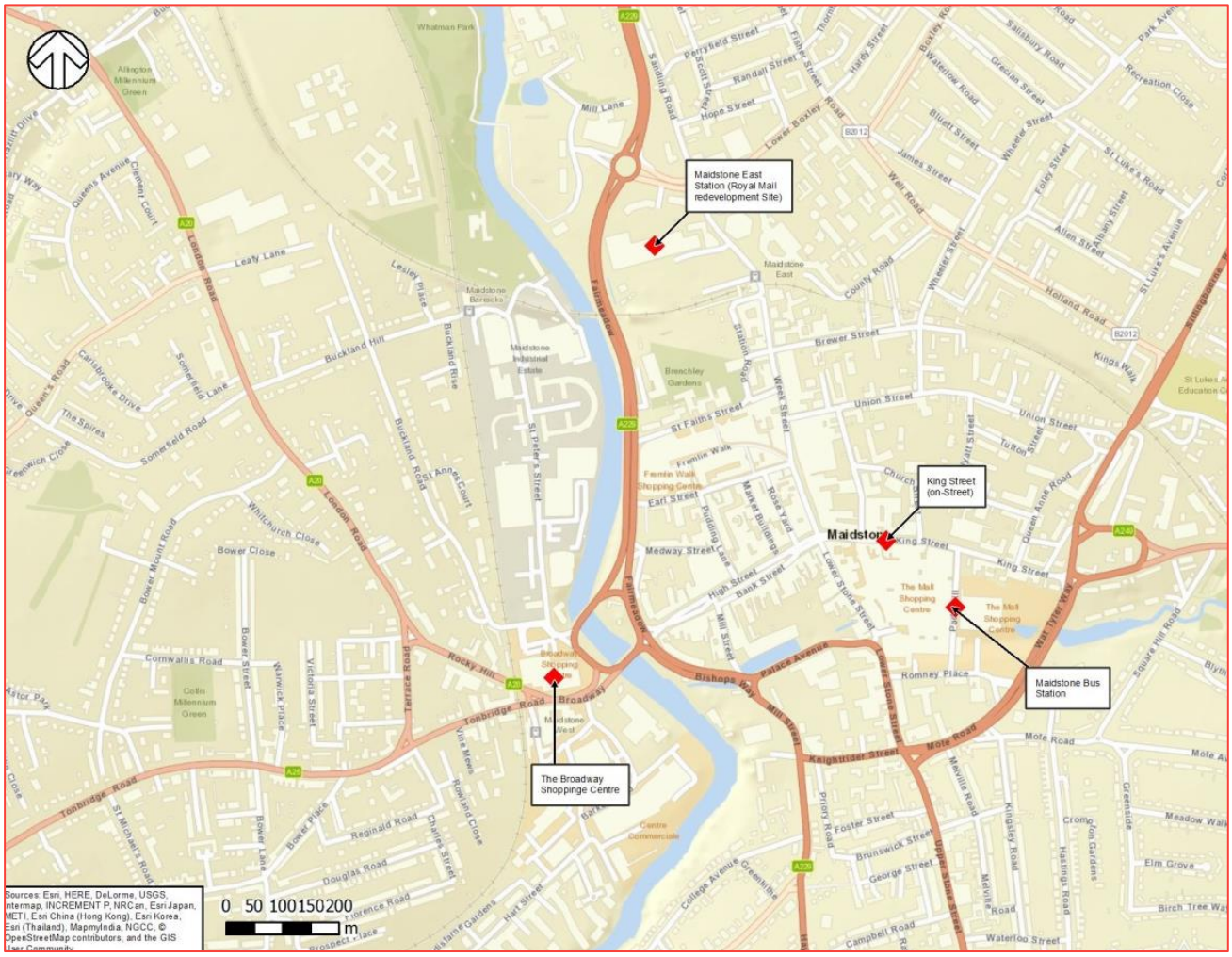
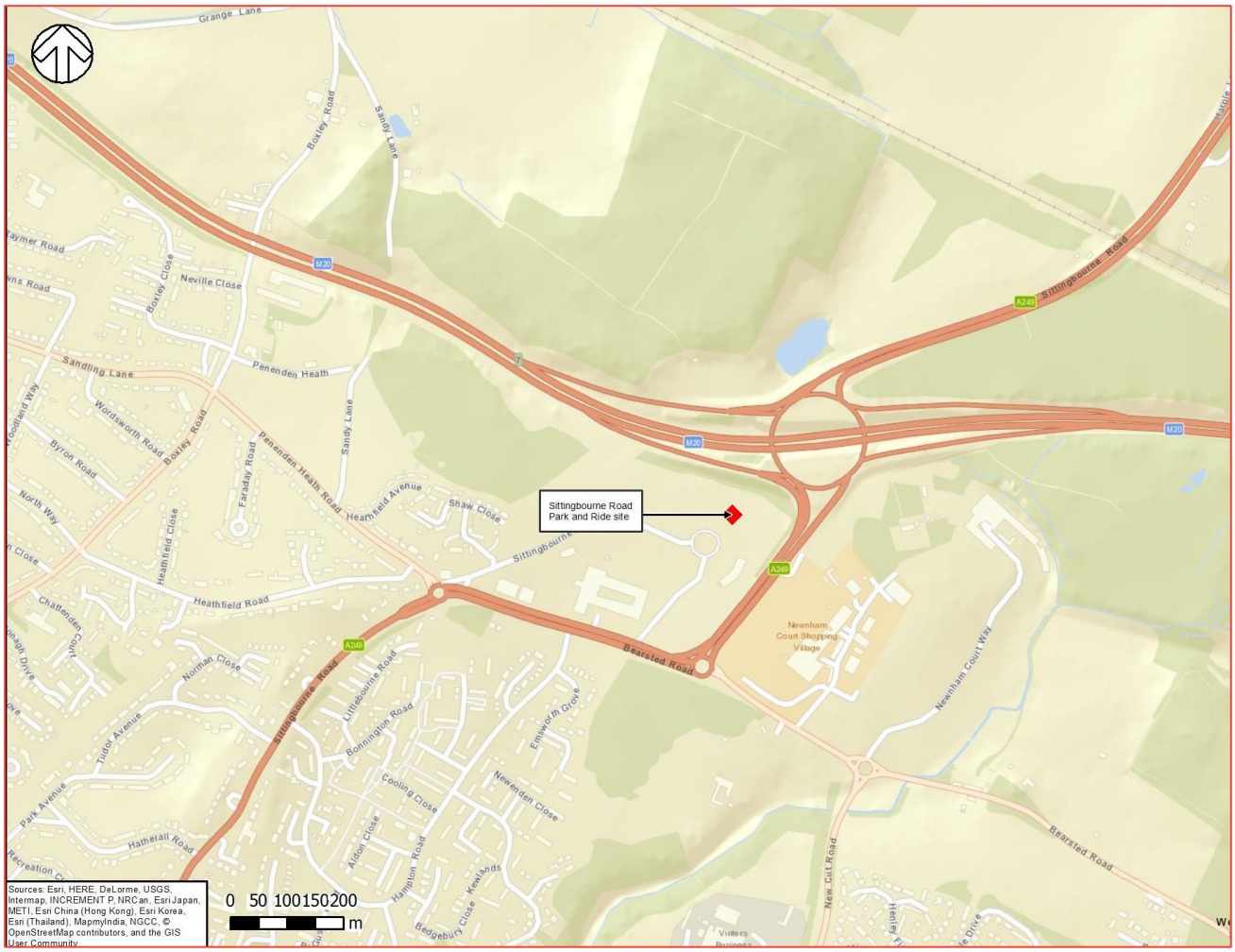


Figure 15 – Potential Bus Interchange Sites – Sittingbourne Road Park & Ride Site



EXISTING BUS STATION

3.3.6. The location of the existing bus station is described earlier, with Figure 3 demonstrating that the bus station is conveniently located within the Town Centre.

3.3.7. It is noted that Capital and Regional have recently made a substantial investment in the fabric of The Mall – according to their website "In 2016 we completed a dramatic £6 million refurbishment of The Mall Maidstone, modernising the 500,000 sq ft centre and delivering a re-energised, more vibrant, shopping environment". The scope of the project is reported as follows:

3.3.8. "Externally, the previous dated entrances to The Mall on King Street and Gabriel's Hill have been updated to attract attention creating a much fresher, more welcoming look to the shopping centre. At King Street the old canopy was removed to open up the entrance and provide a view from Week Street to the centre, with a dramatic and modern treatment on the surrounding walls, including updated brand signage. The Gabriel's entrance has been enlarged taking advantage of previously underutilised space to provide better access to the lower level of the centre, and impressive volumes reflecting the scale of the shopping centre.

3.3.9. Internal works included the installation of new contemporary flooring, a state of the art LED linear ceiling lighting system, and a new sharper look to pilasters throughout the Mall. The lifts and toilet facilitates have also been revitalised. Bulkheads were removed from around the main atrium to allow more natural light to shine through, and augment the retailer visual connectivity between lower and upper shopping malls."

3.3.10. Attending to the appearance, signage and lighting are all investments which need to be made to the existing bus station if it is to be brought up to date and the same architects (ESA Capita Architects) developed a proposal for replacement and refurbishment of the fabric of the bus station, including doors, lights, floors, glazing, canopy and surface treatment. This was the subject of an unsuccessful bid for capital funding to the South East Local Enterprise Partnership in June 2016.

MAIDSTONE EAST STATION / ROYAL MAIL REDEVELOPMENT

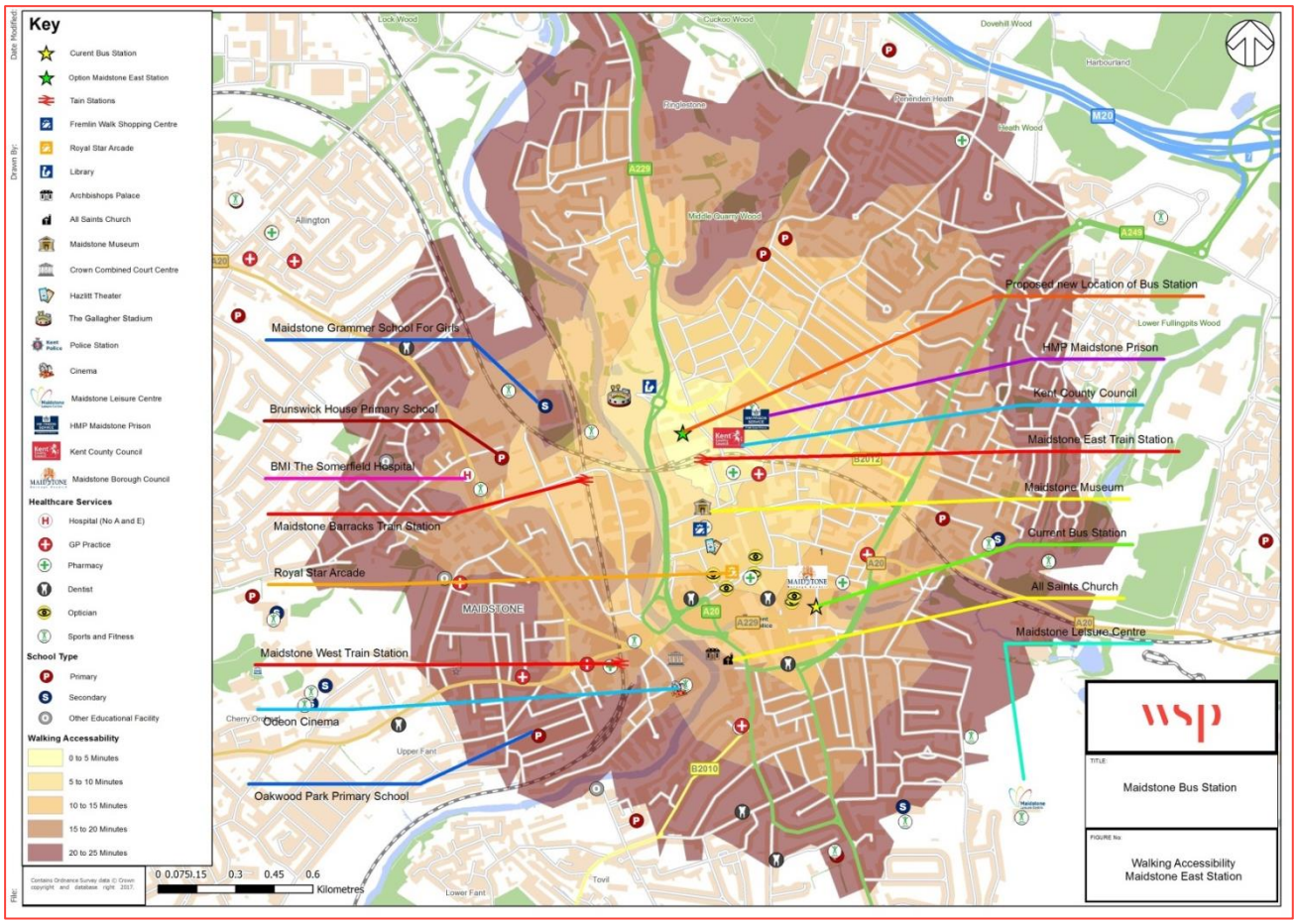
3.3.11. Maidstone East Station is located towards the northern edge of the Town Centre, adjacent to Kent County Council's offices at County Hall. The Royal Mail redevelopment site is located just north of Maidstone East Station, and is bounded to the west by the A229 and to the south by the railway line.

3.3.12. Several bus services already use Week Street and Station Road, such as routes X1, 79, 101, 130, 131, 150 and 155. The existing bus stops are located on Week Street although the London-bound platform is accessed from Station Road. A pedestrian link is provided parallel to the railway line on the southside and connects to the other side of the river, and is the most direct walking route to Maidstone Barracks rail station.

3.3.13. From its junction with Station Road, Week Street is pedestrianised as part of the heart of the Town Centre, which reduces walking time to connect to other facilities and amenities. Figure 16 provides walking isochrones across the Town Centre and demonstrates that a number of notable locations would be readily accessible from either the existing bus stops at Maidstone East Station or the Royal Mail site, such as the County Council offices, Maidstone Prison, Maidstone Stadium and the Museum. Although these are notable destinations, the footfall to these is much less intensive than to core retail sites in the Town Centre.

3.3.14. The site is located further away from the existing concentration of bus services at King Street and The Mall Bus Station and as such would require significant changes to the bus network in order to become the focal point of most or all services.

Figure 16 – East Station / Royal Mail Redevelopment Site



KINGS STREET (ON-STREET)

3.3.15. King Street is located to the north of the bus station and therefore provides southbound access to the bus station. In terms of the road network as a whole, King Street leads from the bus priority section of the High Street (to the west) to the A429/A20 gyratory to the east.

3.3.16. As described above, the High Street is part of the pedestrianised Town Centre and only buses, taxis and service vehicles are permitted access. Consequently, King Street, between the bus station and High Street, is relatively free of general traffic and many bus services already use the existing on-street bus stops near the Bus Station (bus stop references King Street and King Street K1).

3.3.17. Figure 17 provides an overview of King Street's location in relation to the Town Centre. Given its role in access to the bus station, King Street is similarly conveniently located within the Town Centre, and allows easy pedestrian access to many facilities, amenities and workplaces.

3.3.18. Between its junctions with Wyke Manor Road and Church Street, King Street is somewhat narrower than along the rest of its length, limiting the scope to introduce further bus stops, unless more radical measures were taken to limit other traffic. It would not be possible to make this section buses only due to other accesses, such as the exit from The Mall car park.

Figure 17 – King Street (On-Street Option)

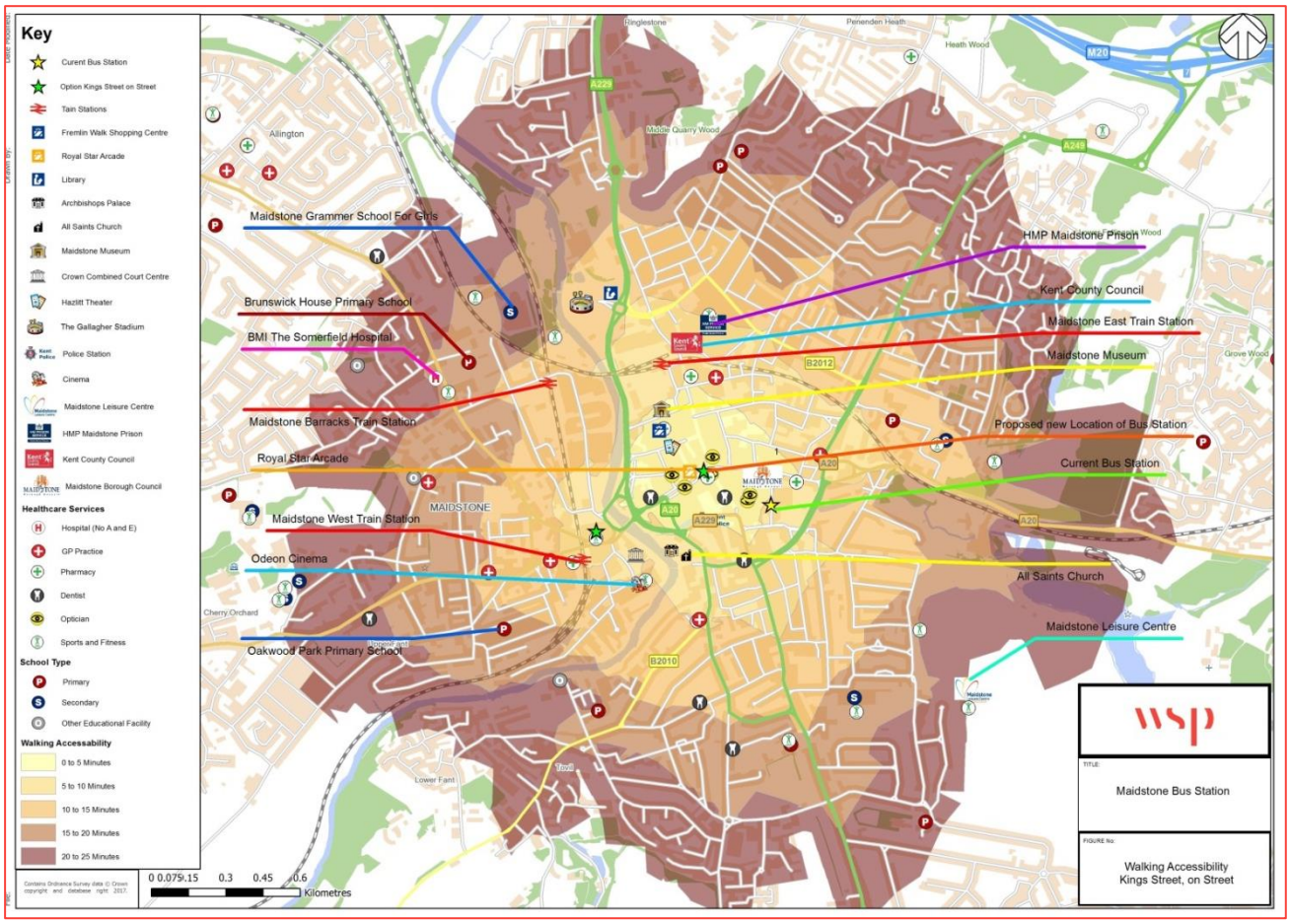


Figure 18 – King Street, between Wyke Manor Road and Church Street

THE BROADWAY CENTRE

3.3.19. The Broadway Centre is a shopping centre on the west-side of the River Medway and is home to Matalan, the discount food store Lidl, a gym and other small-scale retail units. The site is located on the north side of the A20, opposite Maidstone West Station, and to the west of the A229 gyratory.

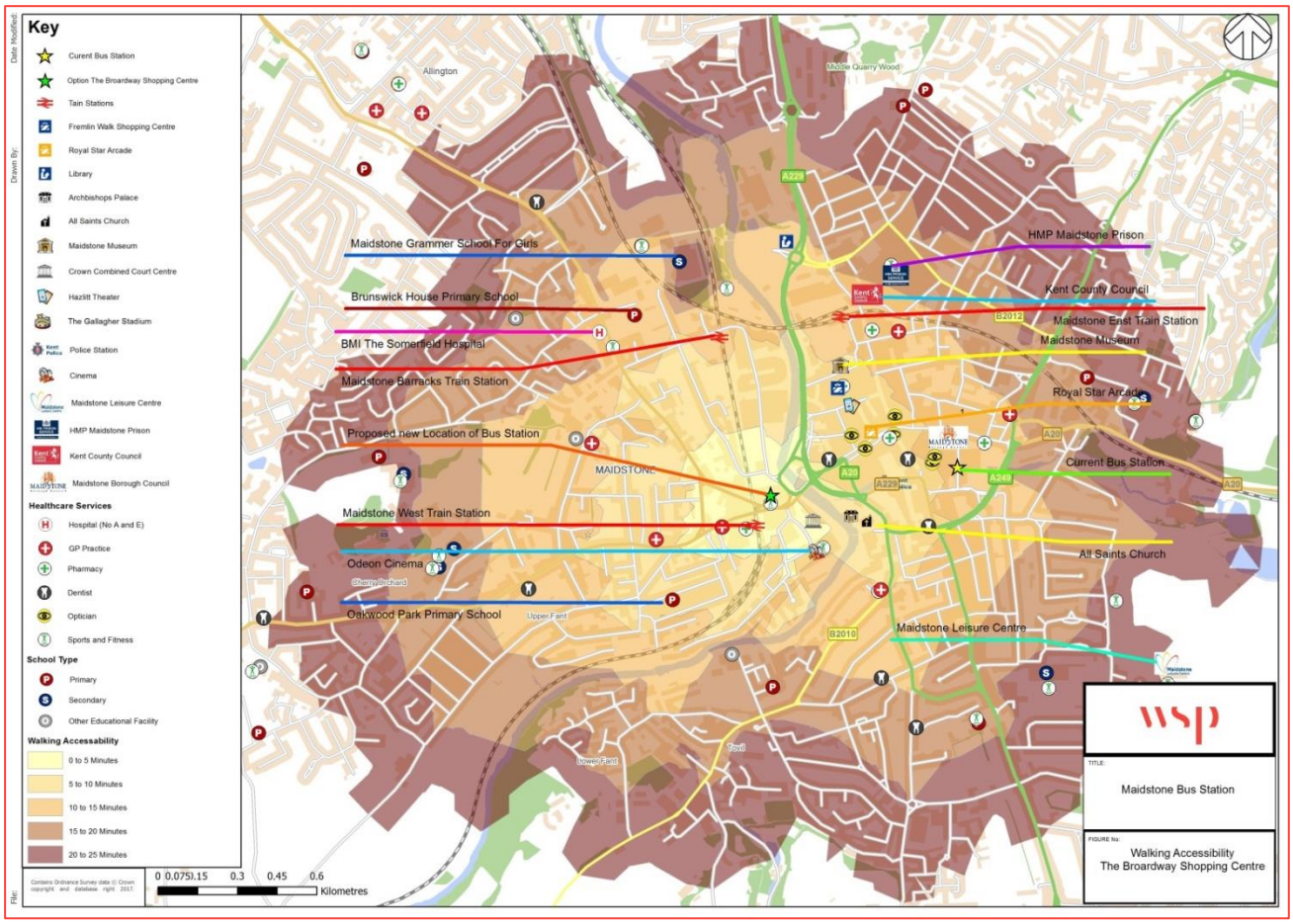
3.3.20. Two 'toucan' pedestrian crossings are provided to cross the A20, via the 'island' which sits between the two strands of the A20, and provides a pedestrian link to Maidstone West station and onwards towards the Lockmeadow development.

3.3.21. An underpass tunnel is provided to cross the A229 on the west side of the gyratory, and connections to Maidstone Town Centre are completed by the footways on Broadway Bridge.

3.3.22. Notwithstanding recent changes to the layout of the gyratory junction, access to The Broadway Centre is still limited by the single direction movements across Broadway Bridge and Fairmeadow Bridge, which would constrain (or at least lengthen) any bus routes which were modified to serve a bus station at this site.

3.3.23. Figure 19 shows the location of the site in relation to the Town Centre. Although the site is still located within reasonable walking distance to local facilities and amenities (in addition to Maidstone West Station), pedestrian access to the Town Centre is perceived to be poor. Given the volume of traffic on the A20, which is dual carriageway at this point, any bus station would be likely to have either an access or egress on St Peter's Street, which would be a significant constraint on the time needed to serve the site, even if bus routes which do not currently operate along the A20 were rerouted. Similarly, its location on the west of the river, means that extending services from the east side of the river would incur additional operating resources in order to reach the new bus station, without a corresponding increase in income from passengers attracted to the retail offer at the site.

Figure 19 – The Broadway Centre

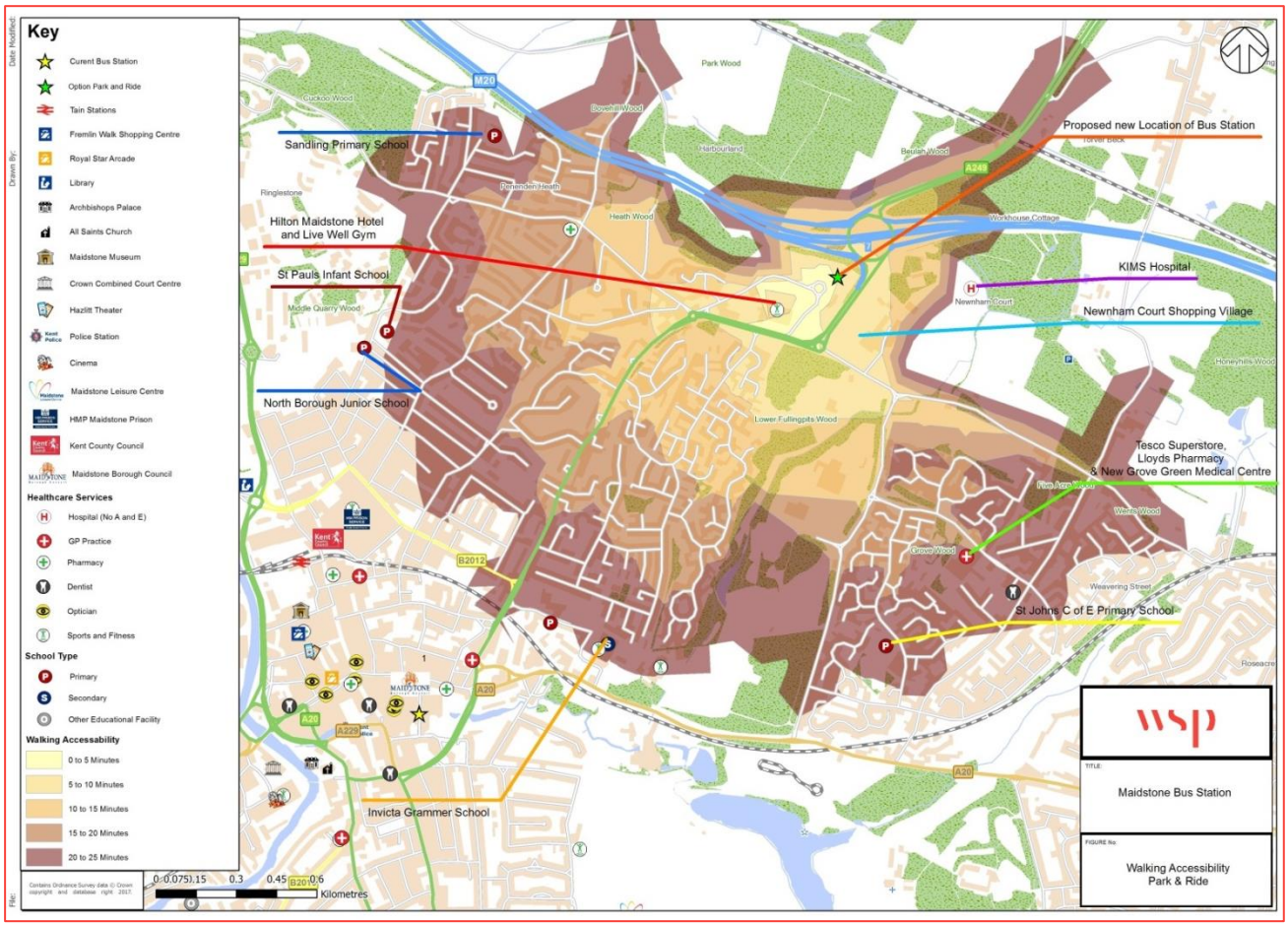


SITTINGBOURNE ROAD PARK AND RIDE SITE

3.3.24. The site of the former Sittingbourne Road Park and Ride service is located on the Eclipse Retail Park beyond the north east of the Town Centre and next to junction 7 of the M20. The site is approximately 3.2km from the Town Centre, which is beyond reasonable walking distance as shown in Figure 20.

3.3.25. The site's main attribute is its proximity to the strategic road network and the emerging development of retail and other commercial uses around junction 7. Apart from the existing inter-urban service to Sittingbourne and the local service to Bearsted (service 9), the site is remote from the current and likely future bus network and would therefore not be appropriate for a passenger interchange. The pattern of layover of most services in the current bus station is such that there would not be time in the schedule to travel to this site and back again and therefore it would not be appropriate for an operational layover site either.

Figure 20 – Sittingbourne Park and Ride



ACCESSIBILITY OF SITES

3.3.26. The overall accessibility to key facilities by bus passengers will change depending on whether a new site, or sites, are taken forward for a Town Centre interchange. All sites, with the exception of the Sittingbourne Road Park and Ride site, are however still located within the Town Centre and therefore the differences are relatively small and consequently each of the sites identified could be acceptable if the existing bus station location became unavailable for some reason in future.

3.3.27. Accordingly, the identified Town Centre sites are all located within reasonable walking distance of key facilities and amenities. Table 7 compares each potential location to significant destinations in the Town Centre such as retail centres, cultural amenities (e.g. theatre, cinema) and other civic sites (e.g. police station).

3.3.28. Table 7 is also colour coded with the green representing the shortest distance between the potential bus station location and the facility, compared to the other sites, and red being the longest distance. Amber is the median value/distance.

3.3.29. The measurements confirm that the Sittingbourne Park and Ride site would be situated the furthest away from any facilities and amenities in the Town Centre and should therefore be ruled out to replace the bus station as a passenger interchange.

3.3.30. The measurements demonstrate that the Broadway Centre and Maidstone East Station could each provide a site for a public transport interchange, which would be close to certain destinations, although none of the amenities is likely to produce significant footfall on a regular basis.

3.3.31. King Street and the site of the existing bus station are both located within the heart of the Town Centre and therefore represent the greatest opportunities to locate a public transport interchange as close as possible to the main trip generators.

Table 7 - Site Accessibility Cross Examination

Attractions (Distances in KM)	Current Bus Station	King Street	Maidstone East Station/ Royal Mail Site	The Broadway Shopping Centre	Sittingbourne Park and Ride
Maidstone West Train Station	0.95	0.9	1.3	0.2	3.3
Maidstone East Train Station	0.75	0.7	0.16	1.1	2.5
Maidstone Barracks Train Station	1.3	1.2	0.8	0.85	3.1
Fremlin Walk Shopping Centre	0.4	0.35	0.45	0.55	2.6
Royal Star Arcade	0.35	0.3	0.6	0.5	2.8
Library	1.1	1	0.24	1.1	2.6
Archbishops Palace & All Saints Church	0.45	0.7	1	0.5	3
Maidstone Museum	0.65	0.6	0.45	0.7	2.6
Crown Combined Court Centre	0.9	0.8	1.2	0.22	3.2
Hazlitt Theatre	0.5	0.4	0.55	0.65	2.7
Police Station	0.35	0.55	1	0.6	2.8
Odeon Cinema	0.8	0.9	1.3	0.3	3.2
Maidstone Leisure Centre	1.3	1.6	2.2	2	3.4
HMP Maidstone Prison	0.8	0.7	0.4	1.2	2.2
Kent County Council	0.8	0.7	0.15	1.1	2.5
Maidstone Borough Council	0	0	0.85	0.85	2.4
The Gallagher Stadium	1.2	1.1	0.3	1.1	2.7

3.3.32. Having ruled out Sittingbourne Park and Ride site, Table 8 provides a comparison between the current bus station site and the potential remaining options for each of the Town Centre facilities and attractions. Again, the table is colour-coded, using red, amber and green to denote the nearest and furthest site for each of the facilities.

3.3.33. Table 8 demonstrates that the alternative which would have a similar level of accessibility to the current bus station is on-street stops on King Street.

3.3.34. The next location that would have a lower impact on walking accessibility would be the Royal Mail Development site next to Maidstone East Station.

3.3.35. The last option, the Broadway Centre, which is situated on the other side of the river from the Town Centre, would increase walking distances to key facilities in the Town Centre and would therefore represent a backwards step in delivering public transport infrastructure which is integrated with trip-generating land uses.

3.3.36. It is therefore concluded, that the current bus station and King Street are conveniently situated within the Town Centre and should therefore be the primary focus for development of bus stopping facilities. The other Town

Centre sites could however be considered as secondary bus interchanges, with the potential to increase services at the train stations, thereby better integrating bus and rail services.

Table 8 - Distance Comparison between Sites

Attractions (Distances in KM)	Current Bus Station	King Street	Maidstone East Station/ Royal Mail Site	The Broadway Shopping Centre
Maidstone West Train Station	0.95	-0.05	0.35	-0.75
Maidstone East Train Station	0.75	-0.05	-0.59	0.35
Maidstone Barracks Train Station	1.3	-0.1	-0.5	-0.45
Fremlin Walk Shopping Centre	0.4	-0.05	0.05	0.15
Royal Star Arcade	0.35	-0.05	0.25	0.15
Library	1.1	-0.1	-0.86	0
Archbishops Palace & All Saints Church	0.45	0.25	0.55	0.05
Maidstone Museum	0.65	-0.05	-0.2	0.05
Crown Combined Court Centre	0.9	-0.1	0.3	-0.68
Hazlitt Theatre	0.5	-0.1	0.05	0.15
Police Station	0.35	0.2	0.65	0.25
Odeon Cinema	0.8	0.1	0.5	-0.5
Maidstone Leisure Centre	1.3	0.3	0.9	0.7
HMP Maidstone Prison	0.8	-0.1	-0.4	0.4
Kent County Council	0.8	-0.1	-0.65	0.3
Maidstone Borough Council	0	0	0.85	0.85
The Gallagher Stadium	1.2	-0.1	-0.9	-0.1

3.3.37. Another option for the development of bus stopping facilities near to Maidstone East rail station, but closer to the heart of the Town Centre, is Station Road towards its junction with St Faith's Street. Although servicing of premises on Station Road and Week Street takes place from this area, the road is relatively lightly-trafficked for the Town Centre and thus could be used to develop more stopping facilities than are provided for by the current bus stop adjacent to Maidstone Museum and Art Gallery.

Figure 21 – Station Road, junction with St Faith's Street

Figure 22 – Station Road, looking towards St Faith's Street

3.4 INTEGRATION AT RAIL STATIONS

CONTEXT

3.4.1. Maidstone Borough is well-served by rail, at least in terms of the number of stations located across the network. Although train timetables for mainline services are focussed on travel to/from London, the number of stations and frequency of services play an important role in accessibility across the borough in terms of connections between villages by rail.

3.4.2. The brief for this project required a summary appraisal of opportunities for integration and each one of the borough's rail stations has been reviewed in turn. The nature of the rural stations, quite often on the edge of the conurbation, means that bus stops for rail replacement services are very often much closer to the station building than bus stops for regular public buses. One of the reasons for this being possible is that demand for car parking is very much lower at the time when rail replacement services operate and therefore greater flexibility can be exercised in the use of scarce space.

3.4.3. All stations are covered by the rail franchise run by South Eastern Trains, with the new Integrated Kent Franchise (covering domestic High Speed and all local rail services, except for those which operate out of Kent to Brighton and Redhill as part of the neighbouring Southern network) set to start in December 2018. The DfT's consultation on the new franchise closed on 30th June 2017.

3.4.4. In addition to a 'Welcome to' poster, it is noted that each South Eastern station has a poster with 'Onward Travel Information' covering:

- Local area map
- Buses map (location of bus stops)
- Main destination by bus (list)
- Taxis (name and number of taxi companies)
- Further information about all onward travel (contact details)

3.4.5. Such standard posters are a very good initiative as long as the information within and between the two posters is consistent and up-to-date (which it was not always found to be). Some stations also have a separate 'Rail replacement bus services from' poster.

3.4.6. For the purposes of considering greater bus and rail timetable integration, it is recognised that current rail timetables are both a fixture (i.e. will not be amended for the purposes of linking with local buses, given the complexity of train scheduling across the network) and are likely to change in December 2018.

3.4.7. Rail times, given in the format of minutes past the hour (xx:00), are for the Monday – Friday daytime, off-peak frequency. At peak times, the timing of services differs and therefore some greater opportunity may exist for bus services to be adjusted for better integration. It is however the case that most rural and inter-urban bus services tend to have some kind of flow of school pupils, with consequent tailoring of the timetable, and therefore this will limit any scope for re-timing.

3.4.8. Distances to bus stops are measured from train station building to the nearest single bus stop. It is noted that with very few exceptions, the nearest bus stops to the borough's train stations do not have bus shelters.

TOWN CENTRE STATIONS

MAIDSTONE BARRACKS

Railway line	Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	No bus services use Buckland Hill
Timetable coordination	Rail services: 2 trains per hour to Strood (xx:05 and xx:35); 1 train per hour to Tonbridge (xx:25); 1 train per hour to Maidstone West (xx:55)
Distance to nearest bus stop	486m, London Road
Potential to use rail replacement stop for local bus service	Rail replacement buses stop immediately to the north of the railway line, just before the narrowing of the bridge. Given the gradient of the road as well as the visibility at this point, it may be difficult to site a permanent bus stop, in the event that any bus service wished to use Buckland Hill.
Opportunities to improve signage	Given the distance to the nearest bus stops and the proximity to the town centre, the demand for interchange is likely to form a very small part of the passenger demand at this station. Nevertheless, additional signage could be installed at the top of the steps leading from the platforms to direct passengers wishing to make a connection to Maidstone East (to the right) and buses on London Road (to the left)
Other	It is noted that the 'Welcome to' poster states that "Buses to local destinations stop in Buckland Road", which is not correct and conflicts with the 'Onward Travel Information' poster (which correctly shows the nearest bus stops on London Road). Better integration would depend primarily on the development of the bus network to serve Buckland Hill and/or St Peter's Street.

MAIDSTONE EAST	
	
Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	79 – Maidstone to Penenden Heath (2 buses per hour) 89 – Maidstone to Coxheath (1 journey early morning from Coxheath) 101|Sapphire – Maidstone to Gillingham via Chatham (every 12 minutes) 130 – Maidstone to Twydall (broadly every 2 hours) 131 – Maidstone to Twydall, with a few journeys to Medway Maritime Hospital (broadly every 2 hours) 150 – Maidstone to Walderslade (broadly every 2 hours) 155 – Maidstone to Chatham (hourly) X1 – Maidstone to King's Hill (hourly)
Timetable coordination	Rail services: 2 trains per hour to London (xx:10 and xx:33); 2 trains per hour to Ashford International (xx:19 and xx:56)
Distance to nearest bus stop	82m, Week Street
Potential to use rail replacement stop for local bus service	Rail replacement buses use the drop-off/pick-up area at the entrance to the London-bound platform, which is subject to special traffic management arrangements to enable buses to reverse at this point. As such, it is not suited to the operation of frequent bus services.
Opportunities to improve signage	Once leaving the Ashford-bound platforms, where buses are sign posted, it is quite a short distance to, and reasonably apparent where, the bus stops are located. From the London-bound platform, where buses are not sign posted (although taxis are), intermediate signage would be potentially welcome but not essential.
Other	The 'Onward Travel Information' provides considerable details about the adjacent bus services and also notes that "Buses to destinations not listed above also leave from Chequer's Bus Station, High Street and King

	Street". As set out in the bus route analysis above, Station Road/Week Street is already one of the busiest corridors for bus movements in the Town Centre with buses serving a wide range of destinations from the bus stops adjacent to the station. Further integration could be facilitated by the development of additional bus stops in Station Road.

MAIDSTONE WEST

Railway lines	London to Maidstone West (High Speed) Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	1 – Maidstone to Barming (irregular – up to 5 journeys per day) 3 – Maidstone to Maidstone Hospital (every 20 minutes) 5 – Maidstone to Sandhurst (1 journey from Cranbrook in the AM peak) 6/6X – Maidstone to Tunbridge Wells (certain journeys at school times) 7 – Maidstone to Tunbridge Wells (every 20 minutes) 8 – Maidstone to Maidstone Hospital (irregular – up to 6 journeys per day) 9/509 – Maidstone to Bearsted (certain journeys at school times) 10X – Maidstone to Ashford (certain journeys at school times) 021 – London to Dover (National Express – two journeys in each direction) 23 – Maidstone to Goudhurst (certain journeys at school times) 24 – Maidstone to Sandhurst (1 journey, Tuesdays only) 26 – Maidstone to Yalding (school times only) 28 – Maidstone to Marden (school times only) 58 – Maidstone to Wrotham Heath (irregular – up to 6 journeys) 59 – Maidstone to Grafty Green (1 journey, school times only) 60 – Maidstone to Maidstone Hospital (irregular – up to 6 journeys)

	71 – Maidstone to Snodland (4 buses per hour) 72 – Maidstone to King's Hill (half-hourly) 78 – Pembury to Maidstone (irregular – up to 5 journeys) 79A – Maidstone to Allington (irregular – up to 3 journeys) 79C – Maidstone to Allington (irregular – up to 6 journeys) 88 – Maidstone to King's Hill (irregular – up to 2 journeys) 155 – Maidstone to Chatham (certain journeys at school times) 266 – Kilndown to Maidstone (1 journey in each direction, Tuesdays only) 503 P&R – Maidstone to London road (every 20 minutes) 505 – Maidstone to Lockmeadow (off-peak, every 20 minutes, Tuesdays only) 570 – Maidstone to Wrotham (school times only) 572 – Maidstone to King's Hill (school times only) 576 – Maidstone to King's Hill (school times only) 774 – Downswood to London (2 return journeys at peak times) 785 – Maidstone to London (2 return journeys at peak times) X1 – Maidstone to King's Hill (hourly)
Timetable coordination	Rail services: 3 return journeys to London St Pancras International (peak times only); 2 trains per hour to Strood (xx:03 and xx:33); 1 train per hour to Tonbridge (xx:28);
Distance to nearest bus stop	60m, Broadway
Potential to use rail replacement stop for local bus service	The rail replacement bus stop is immediately outside the station building, and as such will require traffic management measures within the car park in order to facilitate buses turning.
Opportunities to improve signage	Signage within the station already points to buses and the exit onto the A20. Given the outbound bus stops are immediately outside, no further signage is considered necessary for these although for the inbound bus stop on the other side of the road, some intermediate signage would be potentially welcome but not essential.
Other	Better integration (in terms of a more pleasant waiting environment and closer access for eastbound-bound buses) would require substantial development of the highway network.

OTHER STATIONS

BARMING

Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	58 – Wrotham Heath to Maidstone (irregular – up to 5 journeys per day) 60 – Maidstone Hospital to Maidstone (irregular – up to 6 journeys per day) 575 – Kings Hill to Maidstone (school times only)
Timetable coordination	Rail services: 1 train per hour to Ashford (xx:50); 1 train per hour to London (xx:38) Given the absence of regular bus services on this section of Hermitage Lane, and common destination of Maidstone town centre on all routes (where rail services are quicker), no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	152m, Hermitage Lane
Potential to use rail replacement stop for local bus service	Rail replacement buses are shown as departing from immediately outside the entrance to the station, rather than the existing bus stops. Given the proximity of the bus stops to the station, no change is proposed.
Opportunities to improve signage	Once leaving the platforms, where buses are signed, it is quite a short distance to, and readily apparent where, the single station exit is and therefore intermediate signage between the platforms and Hermitage Lane would be potentially welcome but not essential.
Other	There is no pavement or marked pedestrian lane through the narrowed entrance to the station, which may be a slight deterrent to bus use. Given the rate of development along Hermitage Lane, and the proximity of Maidstone Hospital, it may be possible to pool developer contributions to pump-prime the operation of more regular bus services on this section of Hermitage Lane.

BEARSTED	
	
Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	9 – Maidstone to Bearsted (half-hourly at xx:12 and xx:42 to Maidstone and xx:01 and xx:31 to Bearsted) 64 – Grove Green to Cornwallis Academy (school times only) A dedicated shuttle service to Leeds Castle also operates from Bearsted Station.
Timetable coordination	Rail services: 2 trains per hour to London (xx:03 and xx:28); 2 trains per hour to Ashford (xx:02 and xx:25). Given the short distance either walking or by bus to Bearsted village, and common destination of Maidstone town centre in the other direction, no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	36m, Ware Street
Potential to use rail replacement stop for local bus service	Rail replacement buses already use the existing bus stops.
Opportunities to improve signage	Signage within the station already points to buses and the exit onto Ware Street. Given the bus stops are immediately outside no further signage is considered necessary.
Other	The bus stop is in both directions (i.e. no formal stop heading towards Maidstone) but this is not indicated on the existing bus stops flag on the bus stop heading towards Bearsted.

BELTRING

Railway line	Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	No bus services operate along Gravelly Ways.
Timetable coordination	Rail services: 1 train per hour to Strood (xx:15); 1 train per hour to Tonbridge (xx:43)
Distance to nearest bus stop	1,217m, Branbridges Road
Potential to use rail replacement stop for local bus service	Rail replacement buses are shown as departing from immediately outside the entrance to the station. Although the road width and level crossing do not make this location ideal, there are no other practical locations in the immediate vicinity of the station.
Opportunities to improve signage	Given the absence of bus services on the eastern side of the A228 at this point, no additional signage is considered necessary.
Other	It is noted that the 'Welcome to' poster states that "Buses to local destinations stop in Beltring Road", which is not correct and conflicts with the 'Onward Travel Information' poster (which correctly shows that no buses operate along Gravelly Ways). Better integration would depend primarily on the development of the bus network to serve Gravelly Ways, although this is very unlikely given the deeply rural nature of the area.

EAST FARLEIGH	
	
Railway line	Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	No bus services operate along Farleigh Lane and Station Hill.
Timetable coordination	Rail services: 1 train per hour to Strood (xx:27); 1 train per hour to Tonbridge (xx:31)
Distance to nearest bus stop	368m, Lower Road
Potential to use rail replacement stop for local bus service	The 'Welcome to' poster indicates that rail replacement buses use the nearest bus stops on Lower Road. Other information at the station indicates that rail replacement buses use the station car park. Given the width restriction on the Farleigh Lane bridge over the River Medway, any bus service which wished to serve the station (for example, the conceivable extension of service 1 from Terminus Road) would have to come from the Barming direction and turn around in the car park, which would be unlikely to be feasible during times of normal rail services.
Opportunities to improve signage	Given the lack of footpaths and the gradient of both Farleigh Lane and Station Hill, it is unlikely that many passengers would wish to interchange at East Farleigh at present and therefore the existing signage is adequate.
Other	It is noted that the 'Welcome to' poster states that "Buses to local destinations stop in Station Road", which is not correct and conflicts with the 'Onward Travel Information' poster (which correctly shows the nearest bus stops on Lower Road). A poster concerning a car park closure due to rail replacement buses was displayed although no such closure was in operation on the day.

HARRIETSHAM

Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	10X – Maidstone to Ashford (hourly at xx:11 to Maidstone and xx:07 to Ashford)
Timetable coordination	Rail services: 1 train per hour to Ashford (xx:32); 1 train per hour to London (xx:47) Given the relatively short distance to walk within the village, and common destinations of Maidstone and Ashford, (where rail services are quicker and more frequent), no straightforward opportunities exist for greater co-ordination with local buses.
Distance to nearest bus stop	294m, West Street
Potential to use rail replacement stop for local bus service	Rail replacement buses already use the existing bus stops.
Opportunities to improve signage	Once leaving the platforms, where buses are signed, it is quite a short distance to, and readily apparent where, the single station exit is and therefore intermediate signage between the platforms and West Street would be potentially welcome but not essential.

HEADCORN	
	
Railway line	London to Ashford International via Tonbridge
Frequency of adjacent bus service(s) (weekday, daytime)	12 – Tenterden to Maidstone (half-hourly arriving at xx:22 and xx:52 from Maidstone and departing at xx:25 and xx:50 to Maidstone. Hourly at xx:52 to Tenterden and arriving at xx:50 from Tenterden) 24 – Sandhurst to Maidstone (1 journey in each direction, Tuesdays only) 66 – Headcorn to Cornwallis Academy (school times only) HC – Linton to High Weald Academy (school times only)
Timetable coordination	Rail services: 2 trains per hour to Ashford (xx:15 and xx:45); 2 trains per hour to London (xx:15 and xx:45) Service 12 already provides for reasonably-timed connections heading towards Maidstone and Tenterden, however the downside is that connections on to trains requires passengers to wait.
Distance to nearest bus stop	10m, station approach
Potential to use rail replacement stop for local bus service	Services 12 and 66 already terminate at the stop at the station entrance.
Opportunities to improve signage	Once leaving the platforms, where buses are signed, the terminal bus stop is immediately outside the station building and it is readily apparent how to exit the station. Therefore, intermediate signage between the platforms and Station Road are not necessary as the bus stops are very close by and clearly visible.
Other	The bus stop post at the station entrance is leaning markedly.

HOLLINGBOURNE

Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	13 – Maidstone to Hollingbourne (irregular – up to 6 journeys)
Timetable coordination	Rail services: 1 train per hour to Ashford (xx:28); 1 train per hour to London (xx:59) Given the relatively long walk from the platforms along the station approach road to the nearest bus stops, the infrequent bus service, and common destination of Maidstone, (where rail services are quicker and more frequent), no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	580m, Eyhorne Street
Potential to use rail replacement stop for local bus service	The 'Onward Travel Information' poster shows that rail replacement buses use the station car park whereas the 'Rail replacement' poster shows that such buses use the bus stops on Eyhorne Street at the end of the Station Approach.
Opportunities to improve signage	Once leaving the platforms, where buses are signed, the route along the station approach road is very simple, albeit lengthy. Therefore, intermediate signage between the platforms and Eyhorne Street is not necessary.

LENHAM

Railway line	London to Ashford International via Maidstone East
Frequency of adjacent bus service(s) (weekday, daytime)	10X – Maidstone to Ashford (hourly at xx:04 to Maidstone and xx:12 to Ashford)
Timetable coordination	Rail services: 1 train per hour to Ashford (xx:36); 1 train per hour to London (xx:52) Given the relatively short distance to walk within the village, and common destinations of Maidstone and Ashford, (where rail services are quicker and more frequent), no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	475m, Ham Lane
Potential to use rail replacement stop for local bus service	The rail replacement bus stop is at the entrance to the station access road and requires rail replacement buses to perform a reversing manoeuvre as there is insufficient space to turn around in front of the station building. Therefore, even if the bus operator (Stagecoach) was willing to serve the station, the practical considerations are too great to overcome within the current road layout.
Opportunities to improve signage	Buses are signed from the station and although the route to Ham Lane is relatively straightforward, some additional signage at the junction of Robins Avenue and Beacon Road, would be welcome but not essential.

MARDEN	
	
Railway line	London to Ashford International via Tonbridge
Frequency of adjacent bus service(s) (weekday, daytime)	23 – Maidstone to Laddingford (irregular – up to 2 journeys per day) 25 – Maidstone to Goudhurst (irregular – up to 3 journeys per day) 27 – Maidstone to Goudhurst (irregular – up to 2 journeys per day) 28 – Maidstone to Marden (1 journey per day) C2 – Yalding to Cornwallis Academy (school times only)
Timetable coordination	Rail services: 2 trains per hour to Ashford (xx:06 and xx:36); 2 trains per hour to London (xx:24 and xx:54) Given the absence of regular bus services on Church Green, no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	98m, Church Green
Potential to use rail replacement stop for local bus service	Rail placement buses depart from beside the station building, in the station car park. As a height barrier is normally in operation, local buses are unable to exit the car park.
Opportunities to improve signage	Once leaving the platforms, where buses are signed, it is quite a short distance to, and readily apparent where, the station exit is and therefore intermediate signage between the platforms and Church Green would be potentially welcome but not essential.

STAPLEHURST

Railway line	London to Ashford International via Tonbridge
Frequency of adjacent bus service(s) (weekday, daytime)	5 – Maidstone to Sandhurst (only 2 journeys each day serve the bus stop on the Station Approach road)
Timetable coordination	Rail services: 2 trains per hour to Ashford (xx:10 and xx:40); 2 trains per hour to London (xx:20 and xx:50)
Distance to nearest bus stop	25m, Station Approach
Potential to use rail replacement stop for local bus service	Some journeys on service 5 already serve the bus stop on the Station Approach road, which needs less manoeuvring than the rail replacement stop, which is located closer to the station building.
Opportunities to improve signage	The timetable display case at the bus stop on the Station Approach road could advise intending passengers to continue to Station Road for the bus stops served by the main service.
Other	A bid was previously submitted by MBC (with KCC and Southeastern) to the Local Sustainable Transport Fund “to develop outline design options for the station forecourt and agree a preferred option to be taken to detailed design”.

WATERINGBURY	
	
Railway line	Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	4/4A – Aylesford to Bennet Memorial School (school times only) 6/6A/6X – Tunbridge Wells to East Peckahm (up to 3 journeys in each direction, peak times only) 66 – Maidstone Hospital to East Peckham (generally hourly at xx:18 to East Peckham and xx:41 to Maidstone Hospital) 78 – Pembury to Maidstone (1 journey each day) 266 – Kilndown to Maidstone (1 journey in each direction, Tuesdays only)
Timetable coordination	Rail services: 1 train per hour to Strood (xx:22); 1 train per hour to Tonbridge (xx:36) Given the absence of regular bus services on this section of Maidstone Road, and common destination of Maidstone town centre (where rail services are quicker), no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	148m, Bow Road
Potential to use rail replacement stop for local bus service	Rail replacement buses already stop on the main road (and use the Tonbridge-bound stop on Bow Road).
Opportunities to improve signage	Once leaving the platforms, where buses are signed, it is quite a short distance to, and readily apparent where, the station exit is and therefore intermediate signage between the platforms and Maidstone Road/Bow Road is not necessary.
Other	It is noted that the 'Welcome to' poster states that "Buses to local destinations stop in Station Approach Road", which is not correct and conflicts with the 'Onward Travel Information' poster (which correctly shows the nearest bus stops on Maidstone Road/Bow Road). The 'Rail replacement' poster shows that such buses towards Maidstone do not use the bus stop on Maidstone Road but instead stop opposite the junction with Bow Hill, which is different to the 'Onward Travel Information'.

YALDING

Railway line	Strood to Paddock Wood
Frequency of adjacent bus service(s) (weekday, daytime)	207 – Paddock Wood to Tonbridge (school times only) 266 – Kilndown to Maidstone (1 journey in each direction, Tuesdays only)
Timetable coordination	Rail services: 1 train per hour to Strood (xx:19); 1 train per hour to Tonbridge (xx:40) Given the absence of regular bus services on this section of Hampstead Lane, no straightforward opportunities exist for greater co-ordination.
Distance to nearest bus stop	13m, Hampstead Lane
Potential to use rail replacement stop for local bus service	In the event that rail replacement buses do stop on the road, stops are already shared with local bus services.
Opportunities to improve signage	Signage within the station already points to buses and the exit onto Hampstead Lane. Given the bus stops are immediately outside no further signage is considered necessary.
Other	In the 'Welcome to' poster case and in the 'Onward Travel Information' poster, rail replacement buses are shown as stopping on Hampstead Lane (going west) and at the station entrance (going to Yalding). The 'Rail replacement' poster shows that the stop for these buses "is in the station car park by the platform".

3.5 REVIEW AND CONCLUSIONS

3.5.1. The redevelopment of the area around Maidstone East, whilst welcome in its own right and for the opportunity to improve interchange between existing bus and rail services, does not of itself mean that the weight of the town centre will move to its northern edge. As The Mall amounts to 49,700sqm and Fremlin Walk totals 33,000sqm the vast majority of the retail ofsqm fer will remain concentrated at Fremlin Walk, Week Street, High Street, Gabriel's Hill and King Street and the predominant residential area (of bus users) in the town is primarily to the south east. Therefore in terms of origin and destination, a primary bus terminating facility is most reasonably located in the area along the High Street/King Street corridor.

3.5.2. While the existing Bus Station is in need of major renovation (and complete replacement in the medium to long-term), it should not be forgotten that it has some attributes which would be welcome to retain:

- Integrated with the retail offer
- Waiting facilities for passengers are fully covered
- Bus stops have doors closed until buses are ready to board
- Multi-directional access (north-south, right and left)

3.5.3. New bus terminal arrangements should ideally be located:

- Close to the heart of the Town Centre, in the same way that car parks are, so that bus passengers have the same convenience as car drivers (and bus travel can be equally attractive to potential passengers)
- Close to the main bus corridors in/out of the Town Centre, in order to provide quick access which does not result in unproductive time and distance
- In roads which are lightly used by other traffic in order to reduce bus/general traffic conflicts and provide a more pleasant waiting environment for bus passengers
- Where it can be accessed directly from multiple directions, again in order to provide quick access which does not result in unproductive time and distance.

3.5.4. Building a business case for a new bus station is however likely to be challenging for either the public or private sector, recognising that town centre land is valuable whereas a bus station itself does not generate a viable income i.e. the benefits are to passengers and in many ways are intangible (convenience, comfort, reassurance).

3.5.5. In order to understand the business case for a renewed facility, more detailed research and analysis of bus passenger trips, in terms of connections between services (both local and inter-urban) could be commissioned. This would inform consideration of the type of facility which is needed from the passenger perspective and the level of interchange between town and inter-urban services. This research would ideally be carried out with the support and involvement of bus operators.

3.5.6. As long as it is designed to be fit-for purpose, a revised facility, catering for the current overall extent of the bus network, could:

- Be smaller, particularly if services do not layover to the same extent as now; or
- Be the same size, but provide more capacity for additional services to use the facility; or
- Be the same size but provide some amount of formal layover space, thus taking such vehicles away from the path of in-service buses.

3.5.7. Even where services terminate in the bus station, and there is a requirement for layover, the vast majority of these require a period of no more than 10 minutes. This makes a remote layover facility an impractical solution, as too much of the time would be incurred getting there and back, thus causing journeys of unnecessary time and distance, and resulting in higher emissions. If such a layover facility is required, this could be formalised at the lower end of Earl Street, where extended layover is already known to being take place.

Figure 23 – Lower end of Earl Street

3.5.8. It is not considered that a larger facility is needed for a single bus terminus in the longer-term, as the development of the town and the bus network is likely to lead to more services serving the north and north-west of the town. Terminating buses at Maidstone West is not considered to be a likely development of the bus network due to the constrained road network at that location and the station being relatively remote from the Town Centre.

3.5.9. Providing more bus stopping capacity at Maidstone East is considered to be a valid option, with Station Road being the preferred current location as being closer to the Town Centre and in a road where less conflict would arise with other traffic. It should be noted that this would not be at the expense of the existing disabled parking, either on Station Road or Earl Street.

3.5.10. Immediate opportunities for better integration between existing bus and rail provision are mainly focussed on information and signage, rather than infrastructure and re-timing/re-routing of bus services.

3.5.11. With the new rail franchise, due in 2018, the timing of existing connections will require review and will give rise to the opportunity to consider new connections. In the longer-term, the development of bus services, possibly 'pump-primed' by money from developer contributions, will be necessary to deliver comprehensive integration across stations generally, although some of the very rural stations (e.g. Beltring and Yalding) are likely to continue to be unserved by scheduled conventional bus links due to their remoteness from centres of population.

3.5.12. It is also likely that developments in ride-sharing and 'e-hail' mobility services could provide greater opportunities for links to rural rail stations (and to/from town centre stations at certain times) rather than the development of conventional scheduled local bus services.

3.5.13. As a more radical step, development of the bus network to enhance connectivity to the principal rail stations could take place and while this could be connected to the creation of a secondary bus hub at Maidstone East, it would not necessarily depend on it. A lot of Maidstone's inter-urban bus services connect towns and villages which currently have equally good if not better rail connections to London than Maidstone (clockwise from the north: Chatham, Rochester, Sittingbourne, Bearsted, Ashford, Headcorn, Marden, Tunbridge Wells, Tonbridge and West Malling) and therefore in pure connectivity terms, there would appear to be a greater need to provide more direct links within the urban area to Maidstone East and Maidstone West than for the hinterland.

3.5.14. Therefore, the services which provide the core of the bus network in the Maidstone urban area (defined as those operating at least half-hourly or more frequently) have been reviewed for potential opportunities to provide direct connections to rail stations. The current and potential terminal arrangements would be as follows:

Table 9 – Potential Terminal Arangements

Service	Route	Daytime Frequency	Current town centre terminus	Proposed alteration	Comment
101 Sapphire	Maidstone - Springfield - Horsted - Huntsman's Corner - Chatham - Gillingham	12 minutes	Pudding Lane	None	Already serves Maidstone East
9	Maidstone - Grove Green - Madingford - Bearsted	30 minutes	Bus Station	Extend to Maidstone West	As the route already serves Bearsted Station, which has largely the same rail offer as Maidstone East, the developmental option would be to extend to Maidstone West and would re-route via King Street, rather than the bus station
85	Senacre Wood - Shepway - Maidstone	10 minutes	Bus Station	None	As the most frequent service, extending to either Maidstone East or Maidstone West would have the largest resource implication
89	Maidstone - Loose - Coxheath -	20 minutes	King Street	Extend to Maidstone East	The service could re-route via Pudding Lane (and stopping there) on its way to/from Maidstone East
7	Maidstone - Wateringbury - Hadlow - Tonbridge - Southborough - Tunbridge Wells	20 minutes	Bus Station	Divert to Maidstone East	As the route already serves Maidstone West, the developmental option would be to extend to Maidstone East and could re-route via Pudding Lane, rather than King Street and the bus station
71	Maidstone - London Road - Allington - Larkfield - Lunsford Park	10 – 20 minutes	Bus Station	No change	Services 71 and 72 provide a combined 10 minute frequency and already serve Maidstone West; as a frequent service the resource implications would be greater than for other options
72	Maidstone - London Road - Allington - Larkfield - East Malling - West Malling - King's Hill	30 minutes	Bus Station	No change	

3.5.15. These changes would reduce arrivals and departures in the bus station by 5 buses per hour and reduce bus traffic in King Street very marginally. The changes would also result in 6 buses per hour terminating at Maidstone East) with 2 buses per hour terminating at Maidstone West (although available bus stops may result in the service not laying over there but instead operating round the A20/A26 gyratory as a non-stop loop). The development of these services is shown diagrammatically in Figure 24 and Figure 25.

Figure 24 – Existing Maidstone urban area services

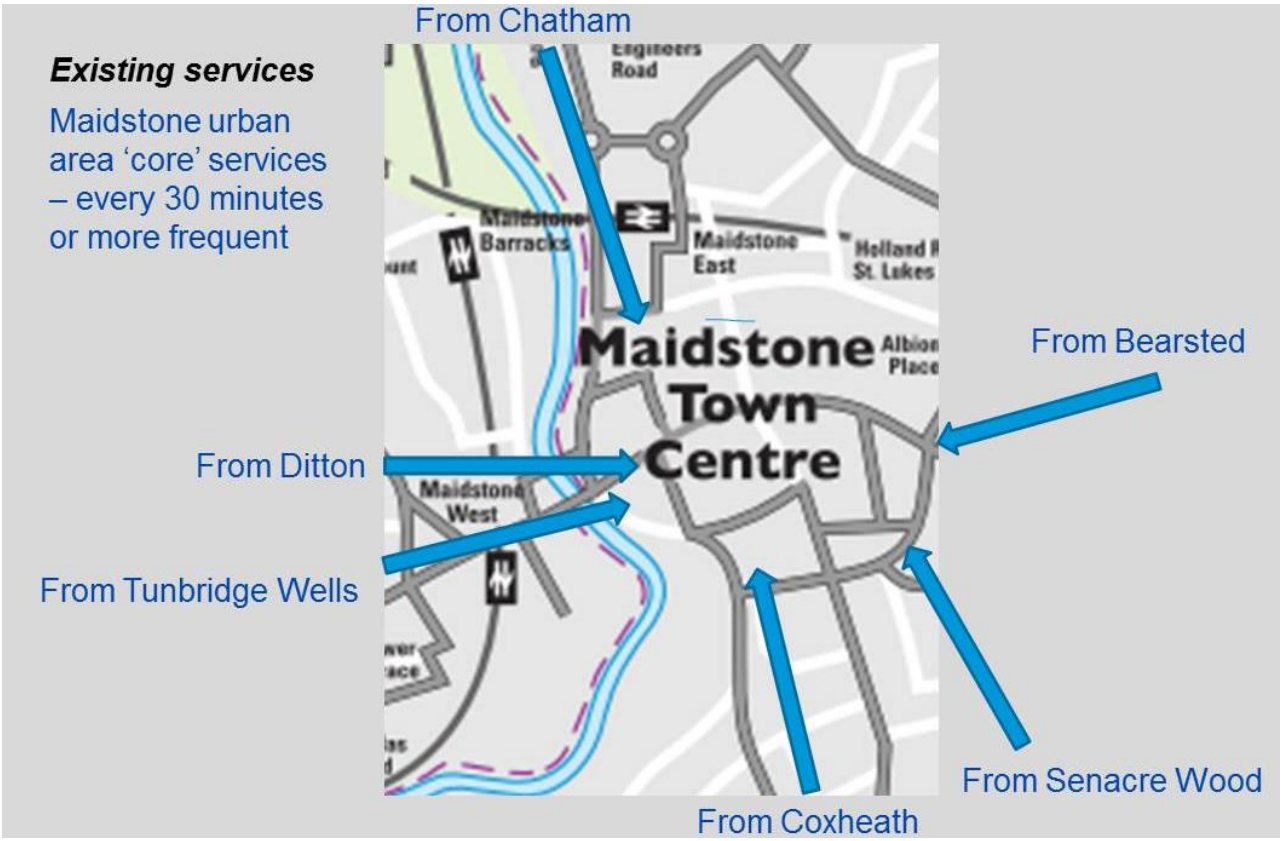
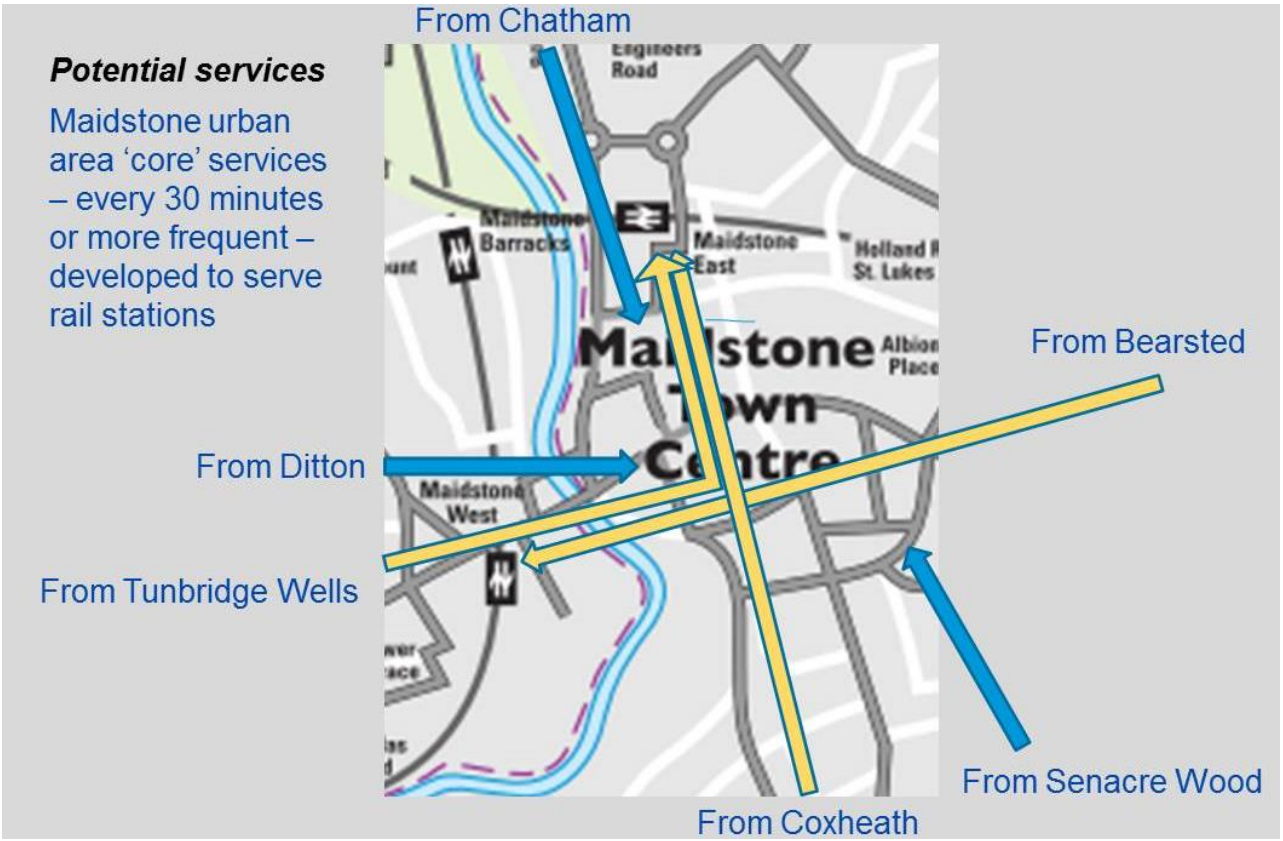


Figure 25 – Potential future Maidstone urban area services - extended to rail stations



2

TOWN CENTRE PARKING STRATEGY

4 TOWN CENTRE PARKING STRATEGY

4.1 INTRODUCTION

4.1.1. The town centre parking strategy sets out to understand the existing town centre parking supply and operation, future demands and then to consider the ITS objectives to optimise long stay parking charges and optimise the level of parking space provision in the town centre.

4.2 CAR PARK DEVELOPMENT PLANS AND ALLOCATIONS

4.2.1. A number of town centre car parks are allocated for redevelopment through the current adopted Local Plan. These are:

- H1(12) 180-188 Union Street, Maidstone 30 dwellings
- H1(13) Medway Street, Maidstone 40 dwellings
- RMX1(2) Maidstone East and Sorting Office, Sandling Road, Maidstone 53 dwellings
- RMX1(3) King Street car park and former AMF Bowling site, Maidstone 210 dwellings

4.2.2. RMX1(2) requires the provision of commuter car parking to serve Maidstone East railway station. Other allocations do not require the retention or re-provision of any public car parking. That being noted, a planning application for the redevelopment of Union Street car park is pending a decision at the time of writing. This current plan retains a 48 space public car park.

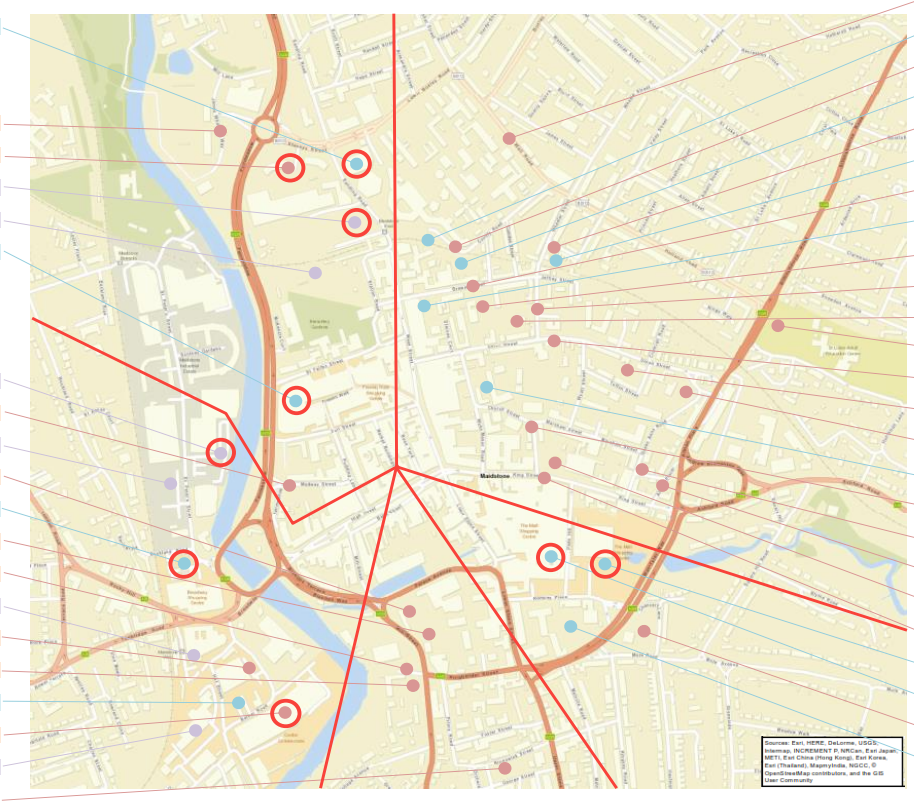
4.2.3. A planning application for the redevelopment of Brunswick Street car park is also pending a decision at the time of writing. This current plan retains a 33 space public car park.

4.3 CAR PARKING SUMMARY

4.3.1. The location, size, control and stay limit for the town centre car parking supply is summarised in Figure 26.

Figure 26 – Car Parking Supply Summary

Supply	Locations	Limit	No. of spaces
Private	Invicta House (Sat/Sun)	10hrs+	230
MBC	James Whatman (On-S't)	4hrs	26
MBC	Sandling Road	10hrs+	241
Private	Maidstone East (North)	10hrs+	509
Private	Maidstone East (South)	10hrs+	54
Private	Fremlin	10hrs+	750
Private	St Peters Wharf	3hrs	250
MBC	Medway Street	4hrs	60
Private	Wickes	2hrs	183
MBC	Palace Avenue	4hrs	40
Private	Broadway	3hrs	384
MBC	Mill Street	4hrs	131
MBC	Horseway (On-S't)	2hrs	4
Private	Maidstone West	10hrs+	49
MBC	Barker Road	10hrs+	75
MBC	College Road	10hrs+	70
Private	B&Q	1hr	96
MBC	Lockmeadow	10hrs+	552
Private	Hart Street Commercial Ctr	2hrs	106
MBC	Brunswick St	10hrs+	71

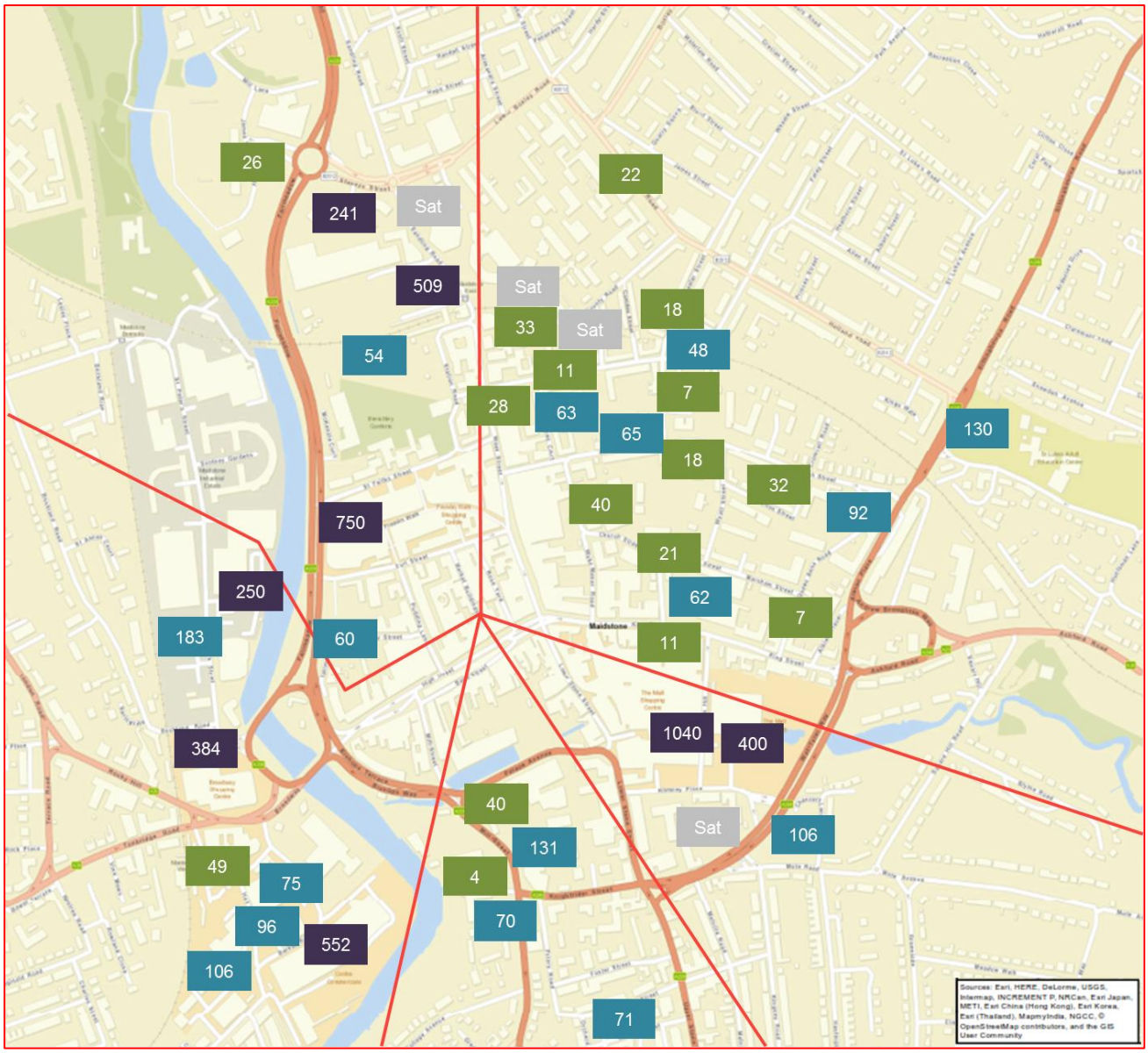


Supply	Locations	Limit	No. of spaces
MBC	Well Road	10hrs+	22
Private	Sessions House (Lower) (Sat/Sun)	10hrs+	23
MBC	County Road (On-S't)	2hrs	33
Private	Sessions House (Upper) (Sat/Sun)	10hrs+	82
MBC	Lucerne Street	10hrs+	18
Private	Jeffrey Street	10hrs+	48
MBC	Brewer Street (On-S't)	2hrs	11
Private	Lower Brewer Street	4hrs	28
MBC	Brewer Street East	4hrs	63
MBC	Wheeler Street On-Street (On-S't)	2hrs	7
MBC	Wheeler Street	4hrs	65
MBC	Sittingbourne Road	10hrs+	130
MBC	Union Street (On-S't)	2hrs	18
MBC	Union Street West	10hrs+	32
MBC	Union Street East	10hrs+	92
Private	Church Street	3hrs	40
MBC	Church Street (On-S't)	2hrs	21
MBC	Brooks Place	10hrs+	7
MBC	Albion Place (On-S't)	2hrs	5
MBC	King Street	4hrs	64
MBC	King Street On-Street (On-S't)	2hrs	11
Private	Sainsburys	3hrs	400
Private	The Mall (Multistorey & Rooftop)	10hrs+	1040
MBC	Mote Road	4hrs	106
Private	Romney Place	10hrs+	12

4.4 CAR PARKING SUPPLY

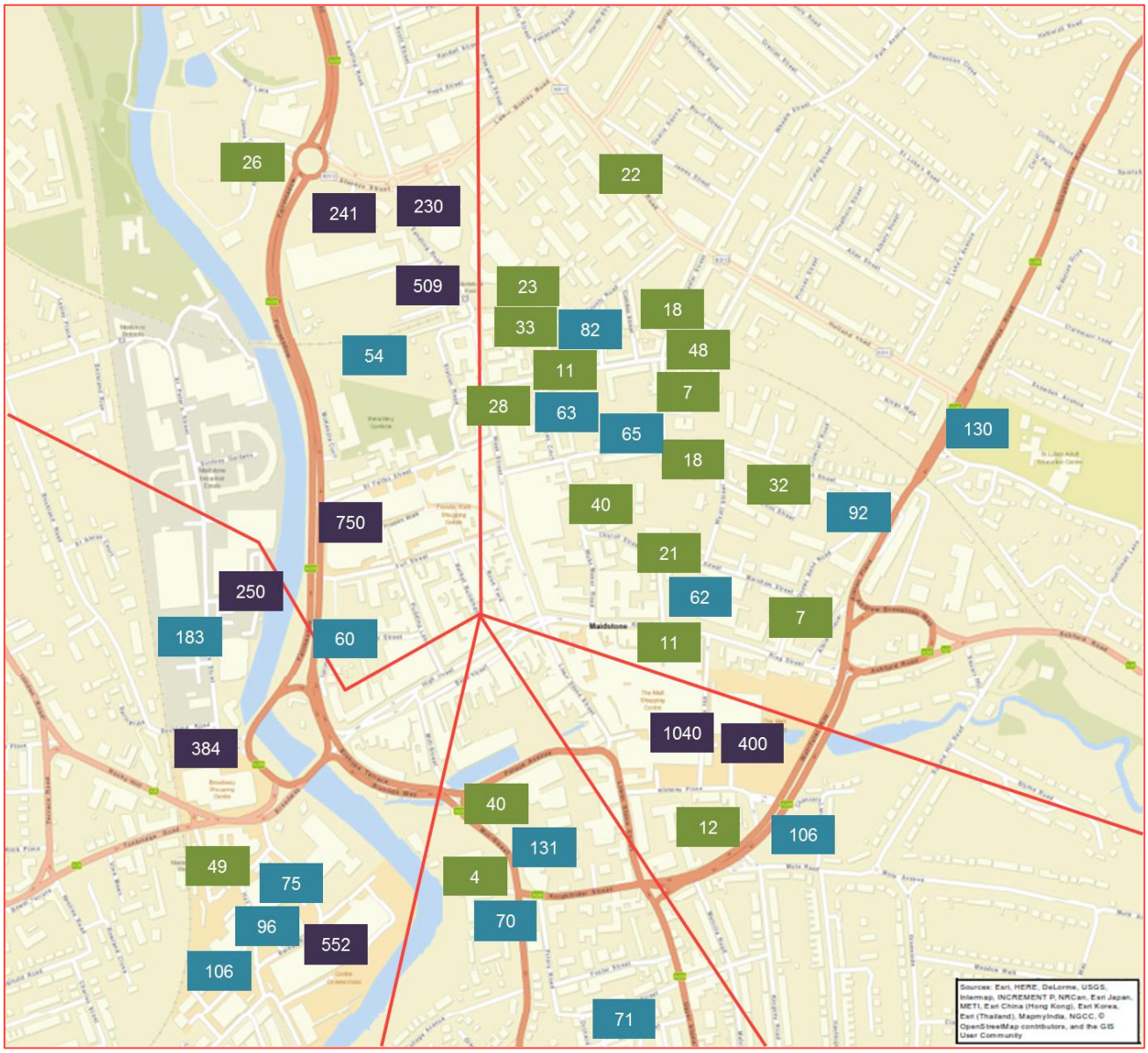
4.4.1. The publicly available car parking supply within Maidstone Town Centre is spread across the centre and made up of a mix of a number of large car parks (predominantly on the western side of the Town Centre and in the south east) with a many more smaller and mid-sized car parks in the remainder of the Town Centre. The north-eastern area of the Town Centre is characterised by a collection of smaller car parks. This is shown in Figure 27.

Figure 27 – Car Parking Supply, Thursday



4.4.2. Additional car parks are available at the weekend, where car parks for employees are opened up to the general public. The overall weekend car parking supply is shown in Figure 28.

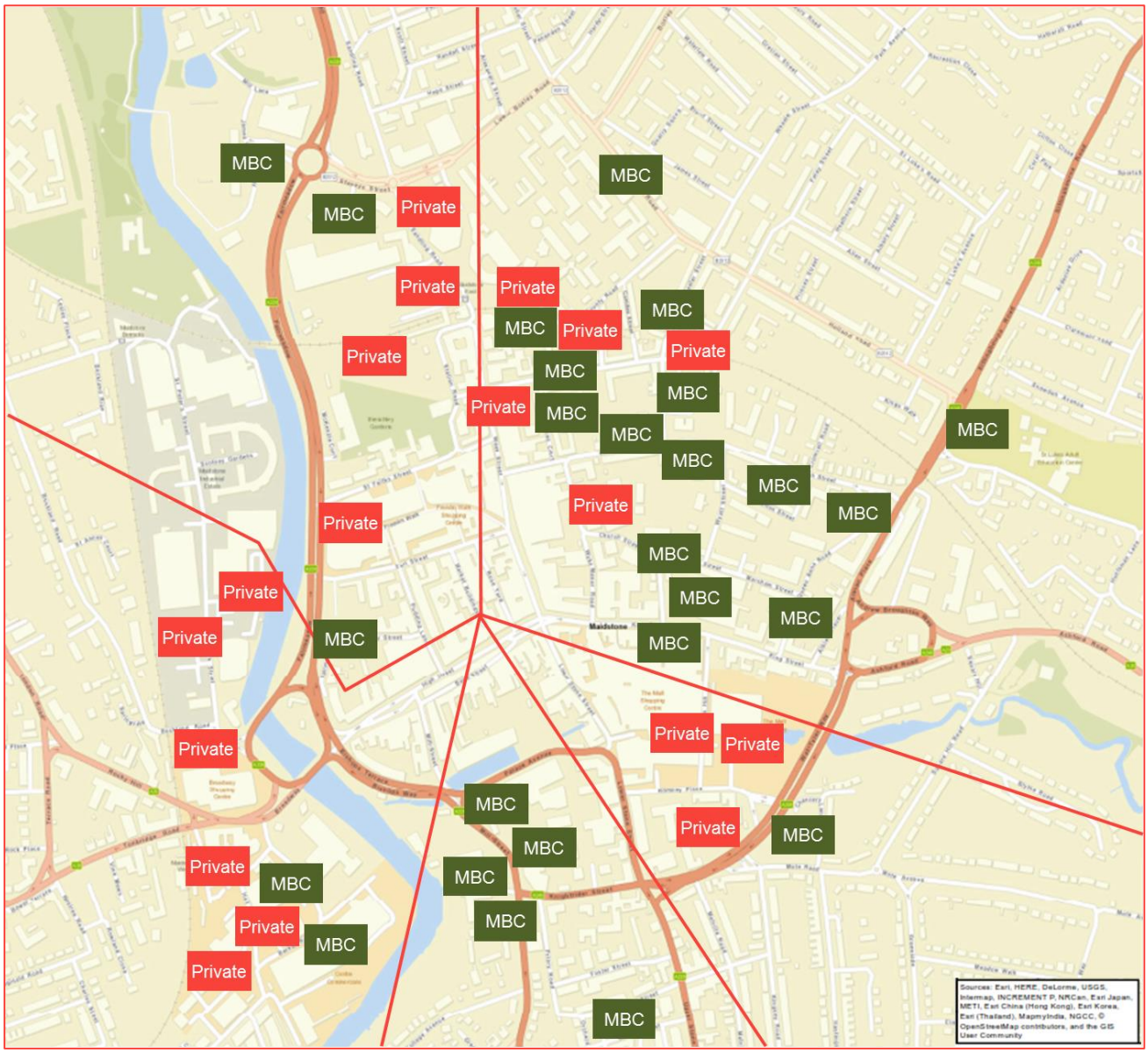
Figure 28 – Car Parking Supply, Saturday



4.5 CAR PARKING CONTROL

4.5.1. The car parking within the Town Centre is substantially controlled by private operators with MBC controlling generally the smaller car parks, with the exceptions of Lockmeadow and Sandling Road which are over 200 spaces. Most of the largest car parks in the town centre (The Mall, Fremlin, Sainsbury's, Broadway, St James) are associated with particular retailers. Maidstone East rail station car park is then the remaining large car park which is privately controlled and primarily serves rail commuters. The car park control is shown in Figure 29.

Figure 29 – Car Parking Control



4.5.2. The majority of the town centre parking supply is located in private car parks (69%) with MBC car parks accommodating just 31% of the supply. Nine car parks make up 70% of the total parking supply (although much of this is associated with big box retail). The supply can be described as follows:

Table 10 – Car Park Control Summary

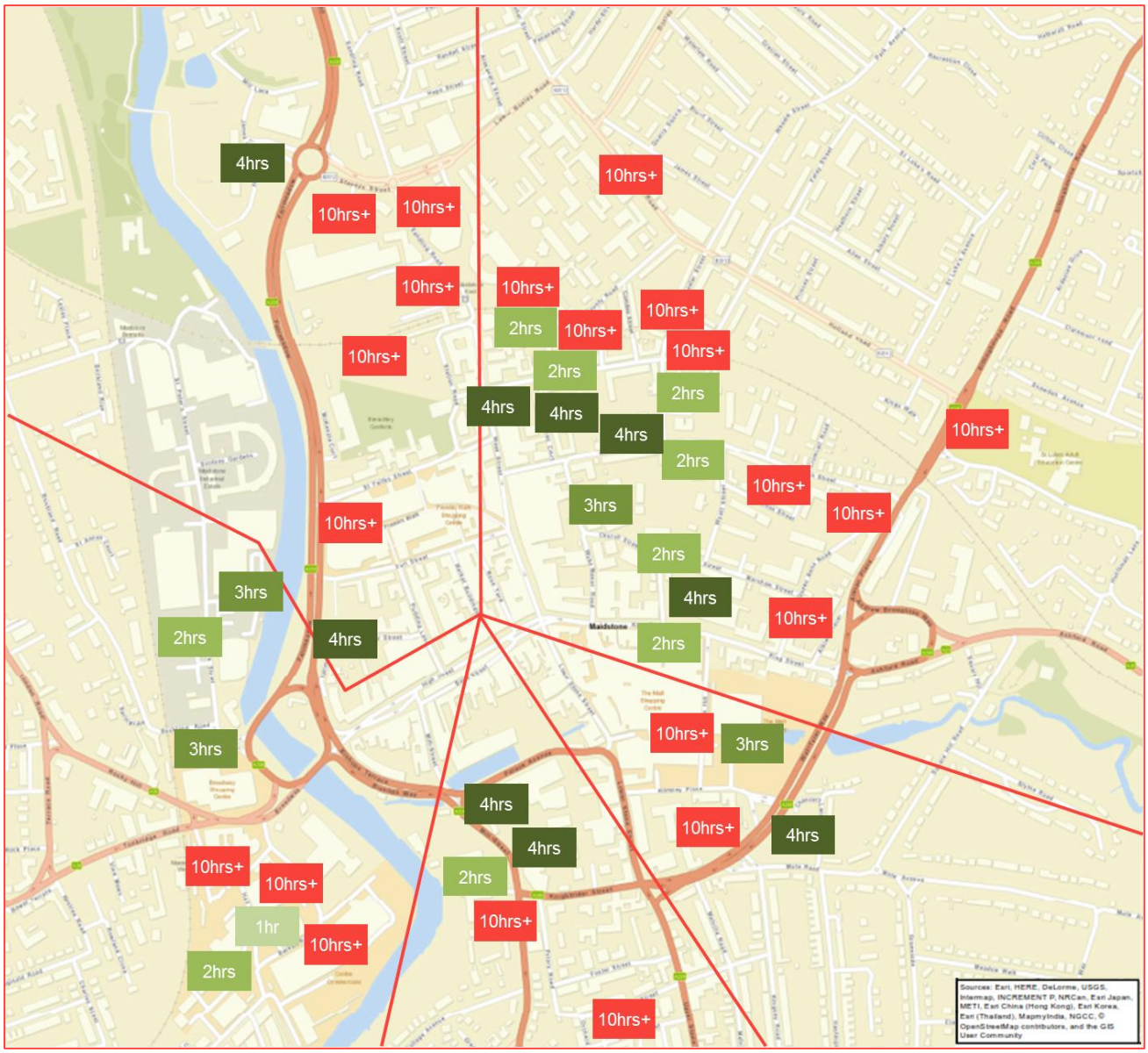
Type	Car Parks	Supply
MBC car parks serving the town centre generally	Lockmeadow, Sandling Road, Mill Street, Mote Road, Sittingbourne Road, Barker Road, College Road, Brewer Street East, Wheeler Street, Brunswick St, King Street, Medway Street, Union Street East, Palace Avenue, Union Street West, Well Road, Lucerne Street, Brooks Place	1,839
MBC on-street parking serving the town centre generally	County Road, James Whatman, Union Street, Church Street, Lucerne Street, Brewer Street, King Street, Wheeler Street, Albion Place, Horseway	136
Private car parks serving the town centre generally	The Mall, Fremlin, Jeffrey Street, Church Street, Lower Brewer Street, Romney Place	1,918
Private car parks serving the town centre at weekends only	Invicta House, Sessions House (Upper), Sessions House (Lower)	335
Private car parks primarily serving big box retail	Sainsbury's, Broadway, St Peters Wharf, Wickes, Hart Street, B&Q	1,419
Rail car parks primarily serving commuters	Maidstone East (North), Maidstone East (South), Maidstone West	612

4.5.3. In addition there are the park and ride car parks at London Road (518 spaces) and Willington Street (400 spaces).

4.6 CAR PARKING STAY LIMITS

4.6.1. The car parks in the town centre operate a ringed system with the most central car parks typically being short stay while the outer car parks are long stay. Partly due to the different bodies controlling car parking and partly due to their primary purposes, the short stay car parks do operate a range of different stay limits (1, 2, 3 or 4 hours). The car park stay limits are shown in Figure 30.

Figure 30 – Car Parking Stay Limits



4.7 CAR PARKING TICKETING

4.7.1. The MBC car parking supply is controlled via a pay & display ticketing, with the option to pay-by-phone. If paying at machine, payment is cash only and pay on arrival. The exception to this is Sandling Road which allows card payments (pay on arrival) and a card tap-in/tap-out pay upon departure in addition to the traditional cash payments for pay and display and pay by phone. Payment mechanisms at other car parks varies, where payment is required, with barrier on entry plus and on foot upon departure at Fremlin and The Mall car parks.

4.8 CAR PARKING TARIFF STRUCTURE

Table 11 summarises the tariff structures for all car parks within Maidstone across both the private and public parking supplies.

Table 11 – Car Parking Tariff Structure

Ref.	Control	<0.5	<1	<1.5	<2	<3	<4	<5	<10	<12	>12hr
Sandling Road	MBC		£1.10			£2.20	£3.50	£6.00			£6.00
Lockmeadow	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Sittingbourne Road	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Barker Road	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
College Road	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Brunswick St	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Union Street East	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Union Street West	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Well Road	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Lucerne Street	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Brooks Place	MBC		£1.00			£2.50	£3.50	£5.00			£6.50
Mill Street	MBC		£1.00			£2.50	£3.50	x	x	x	x
Mote Road	MBC		£1.00			£2.50	£3.50	x	x	x	x
Brewer Street East	MBC	£0.50	£1.00			£2.50	£3.50	x	x	x	x
Wheeler Street	MBC	£0.50	£1.00			£2.50	£3.50	x	x	x	x
King Street	MBC		£1.50			£2.50	£4.00	x	x	x	x
Medway Street	MBC		£1.50			£2.50	£4.00	x	x	x	x
Palace Avenue	MBC					£2.50	£4.00	x	x	x	x
James Whatman (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	£3.50	£4.50	x	x	x	x
County Road (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Union Street (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Church Street (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Brewer Street (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Wheeler Street (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Albion Place (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
Horseway (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
King Street On-Street (On-S't)	MBC	£0.70	£1.50	£2.00	£2.50	x	x	x	x	x	x
London Road P&R	MBC	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free

Ref.	Control	<0.5	<1	<1.5	<2	<3	<4	<5	<10	<12	>12hr
Willington Street P&R	MBC	Free	Free	Free	Free	Free	Free	Free	Free	Free	Free
Sessions House (Upper) Sat-Sun	Private										£2.00
Sessions House (Lower) Sat-Sun	Private										£2.00
Romney Place Sat-Sun	Private										£3.00
Maidstone East (North) Mon-Fri	Private										£5.30
Maidstone East (North) Sat	Private										£3.60
Maidstone East (North) Sun	Private										£1.00
Maidstone East (South) Mon-Fri	Private										£5.30
Maidstone East (South) Sat	Private										£3.60
Maidstone East (South) Sun	Private										£1.00
Maidstone West Mon-Fri	Private										£5.30
Maidstone West Sat	Private										£3.60
Maidstone West Sun	Private										£1.00
The Mall (Multistorey & Rooftop)	Private		£1.50		£2.00	£2.50	£3.50	£4.50			£9.00
Fremlin Sun-Fri	Private		£1.80		£2.30	£3.00	£4.00	£5.00	£9.50	£9.50	£9.50
Fremlin Sat	Private				£3.00		£5.00	£9.00	£10.00	£10.00	£10.00
Invicta House Sat-Sun	Private		£0.70			£1.40	£2.70			£5.00	x
Sessions House (Upper) Sat-Sun	Private		£0.70			£1.40	£2.70			£5.00	x
Sessions House (Lower) Sat-Sun	Private		£0.70			£1.40	£2.70			£5.00	x
Church Street	Private		£0.80		£1.50	£2.00	x	x	x	x	x
Jeffrey Street	Private								£5.50	x	x
Lower Brewer Street	Private				£2.00		£3.00	x	x	x	x
Sainsburys	Private		Free			£5.00	x	x	x	x	x
B&Q	Private		Free	x	x	x	x	x	x	x	x
Broadway	Private					Free	x	x	x	x	x
St Peters Wharf	Private					Free	x	x	x	x	x
Wickes	Private			Free	x	x	x	x	x	x	x
Hart Street Commercial Ctr	Private				Free	x	x	x	x	x	x

4.9 CAR PARKING SIGNAGE & WAYFINDING

4.9.1. Limited variable message signage is provided on the Fairmeadow (A229), Hayle Road and Sittingbourne Road (A249) approaches to the town centre with parking information presented on The Mall Multi Storey, The Mall Rooftop, Fremlin Walk, King Street and Lockmeadow. More generally, the car parking signage within the town appears to have developed organically with fixed signage for many, some of which notes car parking capacity.

4.10 CAR PARKING DEMAND TRENDS

CAR PARKING DEMAND ACROSS A WEEK

4.10.1. Ticket Sales Data for MBC car parks has been analysed to estimate the car parking demand in each of the MBC car parks in five minute intervals across 7 days from May 15th to May 21st 2017 as a recent and neutral week. The results are shown in Figure 31. The data shows that the peaks across the overall MBC controlled parking supply occur on Thursday at c.1100 and on a Saturday at c.1430. Other times of day and other days of the week show a generally lower accumulation. The data indicates a peak accumulation of c.630 on the Thursday and c.670 on the Saturday.

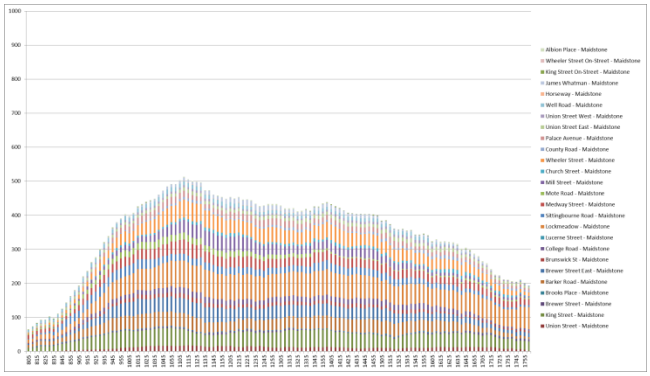
CAR PARKING DEMAND ACROSS A YEAR

4.10.2. Ticket Sales Data for MBC car parks has also been analysed to estimate the car parking demand across the MBC car parks on a Saturday for a number of months in 2016. The results are shown in Figure 32. This generally shows a relatively flat demand profile throughout the year with a peak demand of some 800 cars which then slowly ramps up to Christmas reaching 900 in November and 1,000 in December (the last Saturday before Christmas).

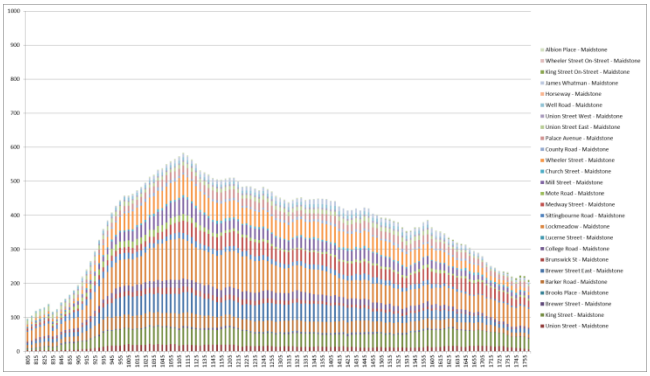
CAR PARKING DEMAND ACROSS FIVE YEARS

4.10.3. Ticket Sales Data for MBC car parks has again analysed to estimate the car parking demand across the MBC car parks on each of a Thursday and a Saturday in each year from 2012 to 2016 inclusive. A neutral week in November was selected in all cases consistent with the 2011 Beat Surveys. The results are shown in the Figure 33 and Figure 34. The data indicates a general decline in peak car parking accumulation over time. On a Saturday peak demand reduces from 1150 to 900 and on a Thursday from 900 to 700 in MBC car parks.

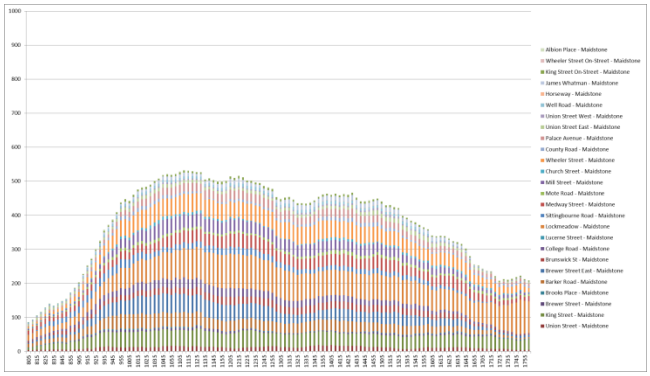
Figure 31 – Weekly Demand Profile for MBC Car Parks



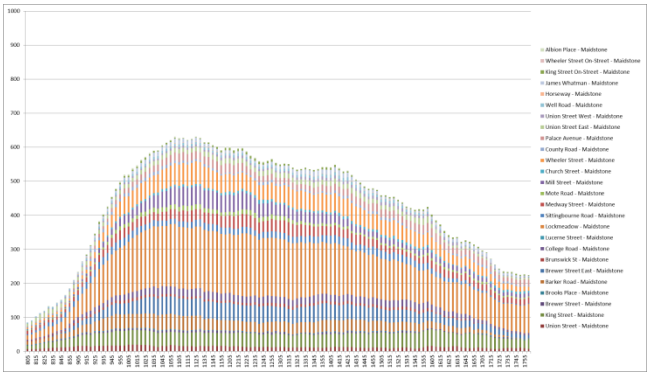
Monday (15/05/17)



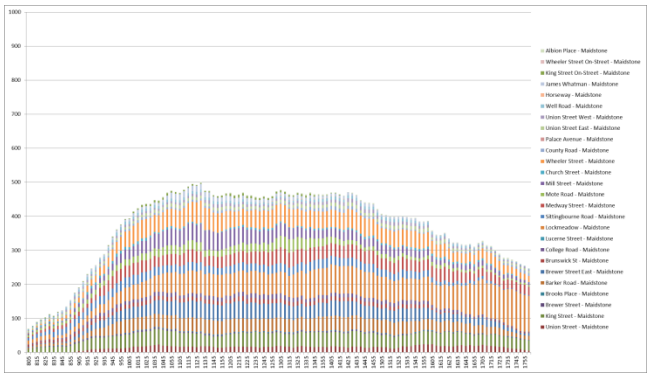
Tuesday (16/05/17)



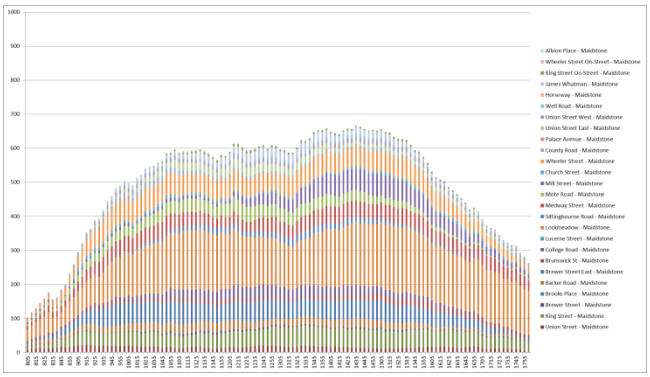
Wednesday (17/05/17)



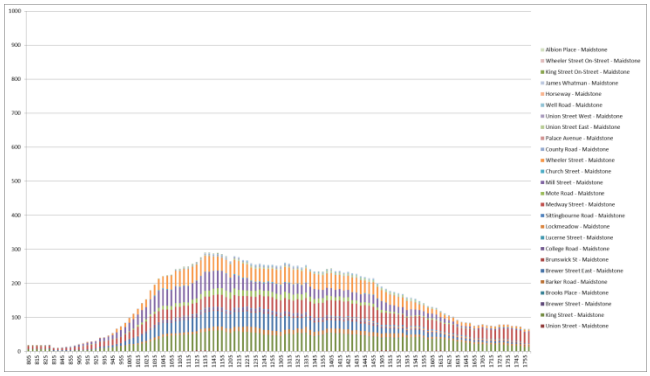
Thursday (18/05/17)



Friday (19/05/17)



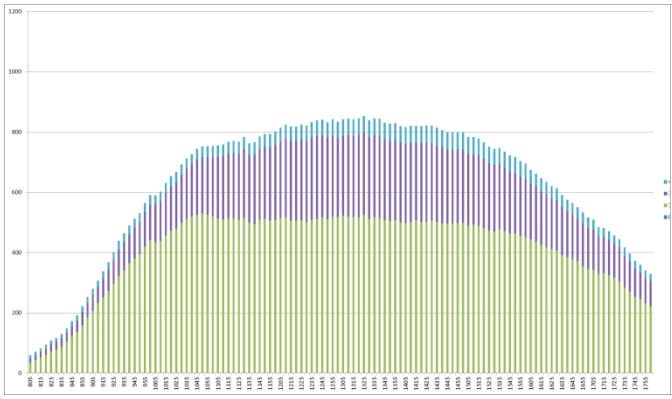
Saturday (20/05/17)



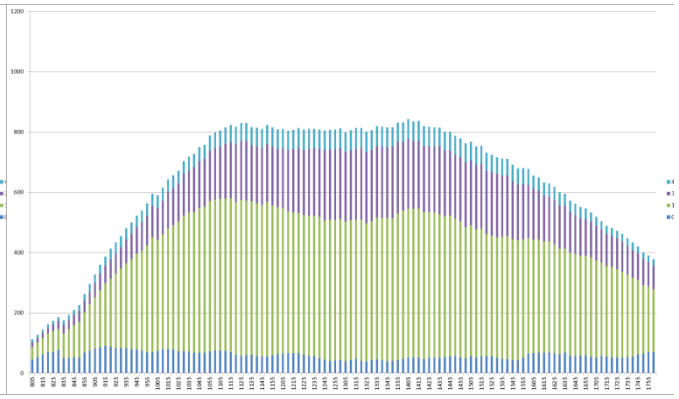
Sunday (21/05/17)

Notes: Vertical axis: Car Accumulation: 0-1000
Horizontal axis: Time: 0800-1800
Colours represent car parks

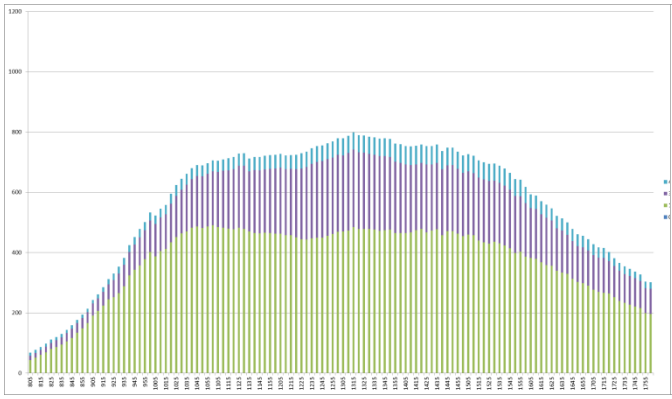
Figure 32 – Demand Profile Across a Year for MBC Car Parks (Saturday)



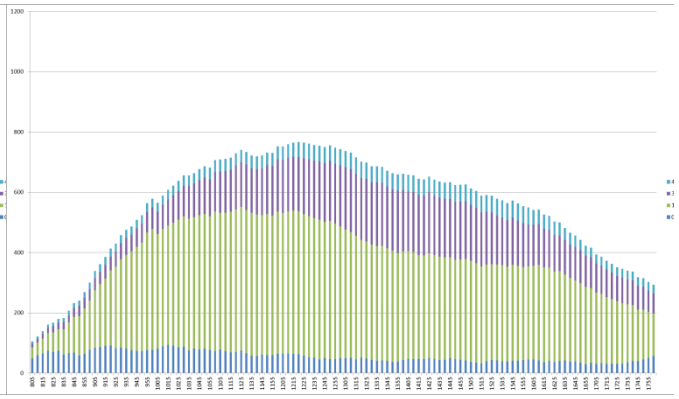
March (19/03/16)



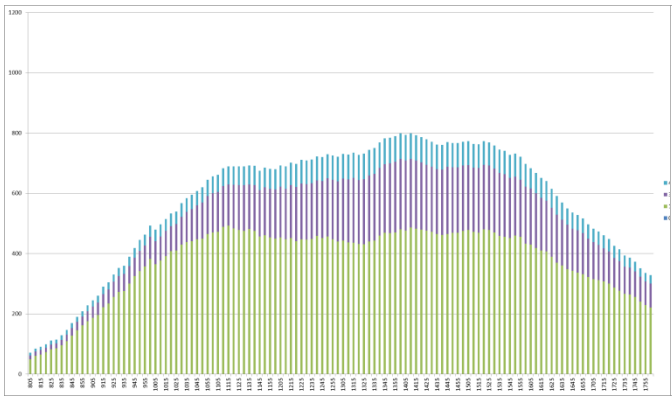
May (21/05/16)



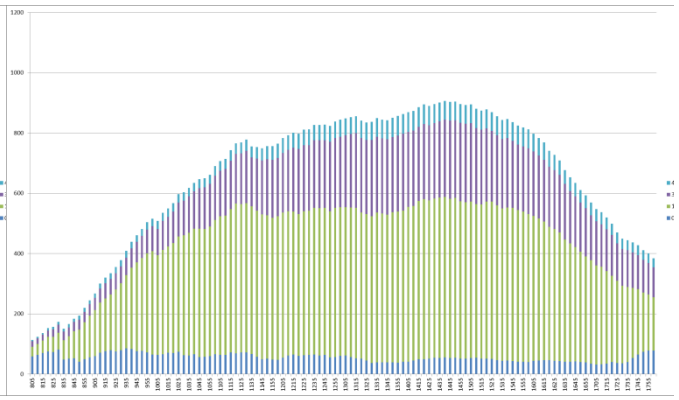
July (16/07/16)



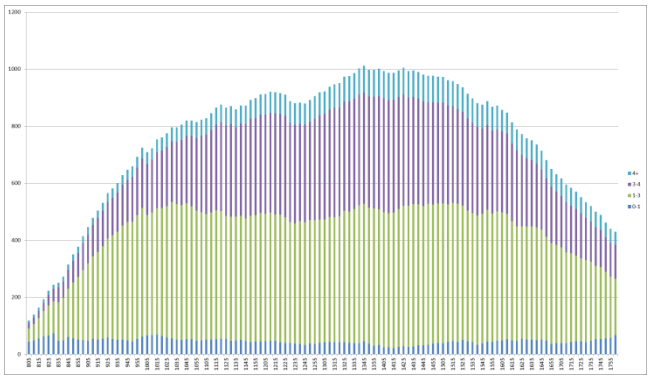
August (27/08/16)



September (24/09/16)



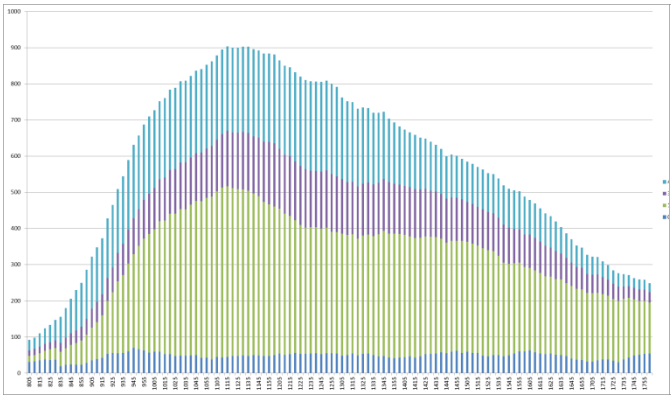
November (12/11/16)



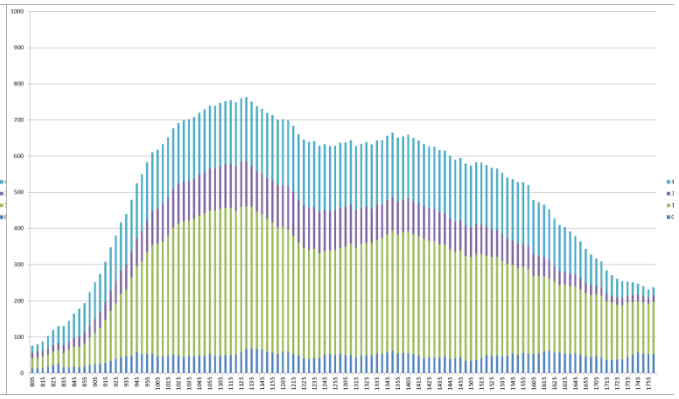
December (17/12/16)

Notes: Vertical axis: Car Accumulation: 0-1200
Horizontal axis: Time: 0800-1800
Colours duration of stay:
Blue <1hr
Green <3hr
Purple <4hr
Cyan >4hr

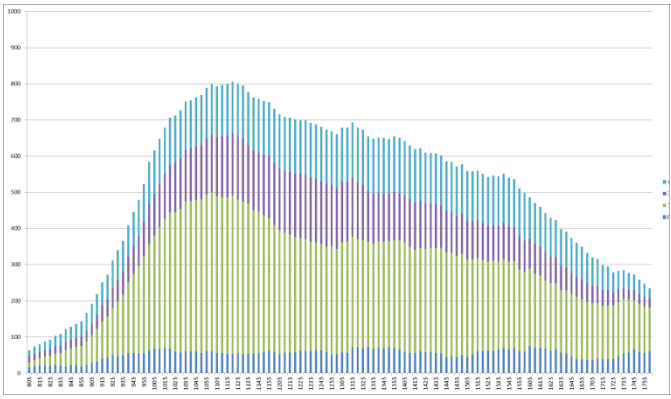
Figure 33 – Long Term Trend for MBC Car Parks, Thursday



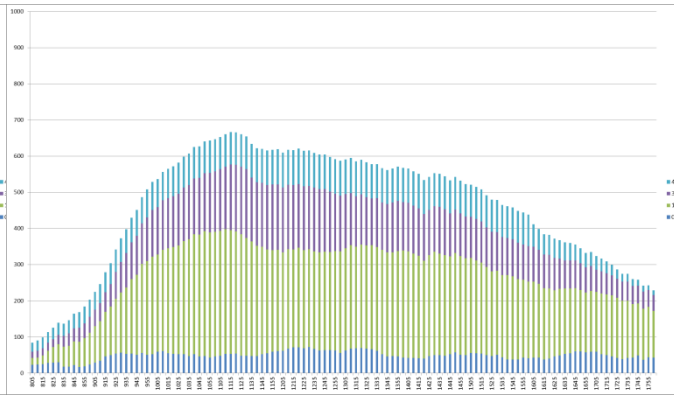
2012 (08/11/12)



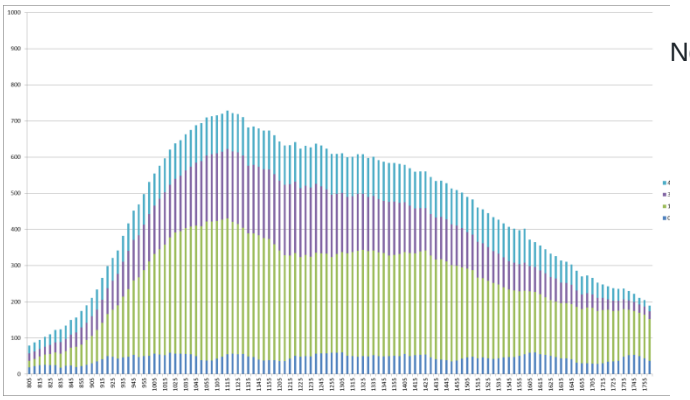
2013 (07/11/13)



2014 (06/11/14)



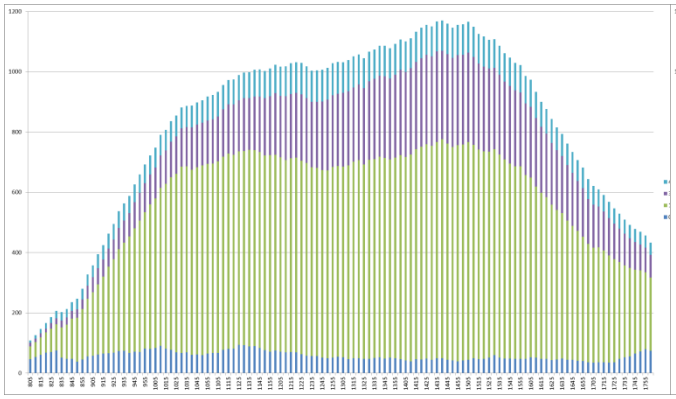
2015 (05/11/15)



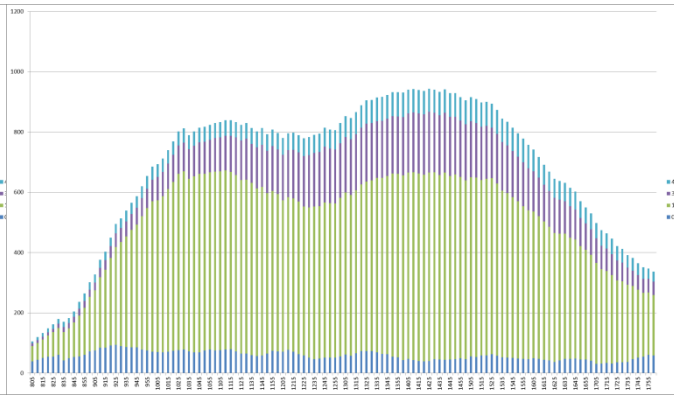
2016 (10/11/16)

Notes: Vertical axis: Car Accumulation: 0-1000
Horizontal axis: Time: 0800-1800
Colours duration of stay:
Blue <1hr
Green <3hr
Purple <4hr
Cyan >4hr

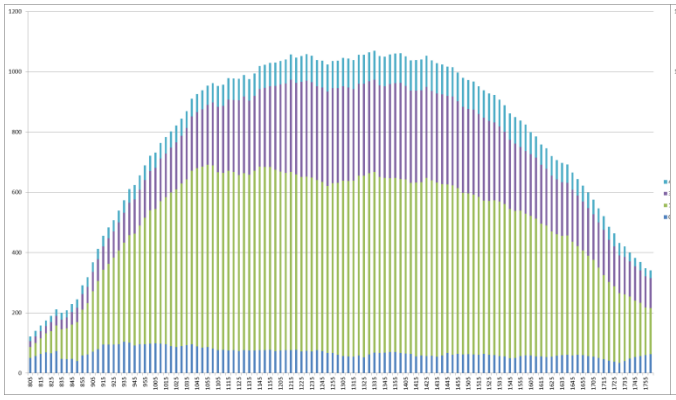
Figure 34 – Long Term Trend for MBC Car Parks, Saturday



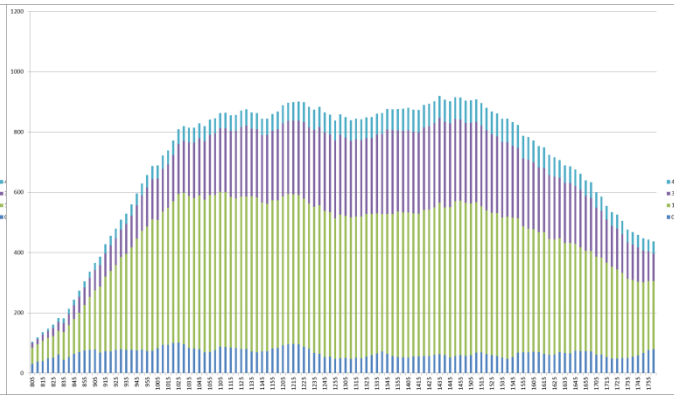
2012 (10/11/12)



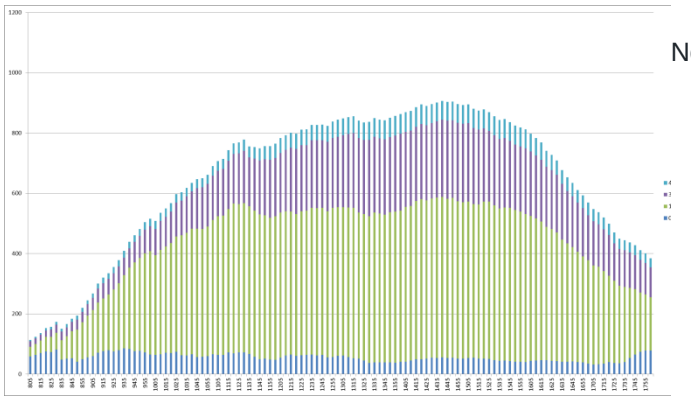
2013 (09/11/13)



2014 (08/11/14)



2015 (07/11/15)



2016 (12/11/16)

Notes: Vertical axis: Car Accumulation: 0-1200
Horizontal axis: Time: 0800-1800
Colours duration of stay:
Blue <1hr
Green <3hr
Purple <4hr
Cyan >4hr

4.11 2017 SURVEY SCOPE

4.11.1. To understand current prevailing car parking demand across the town centre, car parking surveys were undertaken on Thursday 21st and Saturday 23rd September 2017 between 0700 and 1900. The surveyed car parks make up the majority of the public car parking supply within the town centre. The scope of the survey, agreed with MBC, was as shown in Table 12.

Table 12 - Survey Specification

Survey Type	Car Park
Car Parking Occupancy	Sandling Road Invicta House (Sat/Sun) Mill Street Mote Road Sittingbourne Road Sessions House (Upper) (Sat/Sun) Sainsburys Broadway B&Q Barker Road College Road Brewer Street East Wheeler Street Brunswick St Jeffrey Street Palace Avenue Church Street County Road (On-S't) Union Street West Well Road Lower Brewer Street James Whatman (On-S't) Sessions House (Lower) (Sat/Sun) Union Street (On-S't) Church Street (On-S't) Lucerne Street Romney Place Brewer Street (On-S't) King Street On-Street (On-S't) Wheeler Street On-Street (On-S't) Brooks Place Albion Place (On-S't) Horseway (On-S't)
Car Parking Occupancy & Full Duration of Stay Profile	The Mall (Multistorey & Rooftop) Fremlin Lockmeadow King Street Medway Street Union Street East
Not Surveyed	Maidstone East (North) St Peters Wharf Wickes Hart Street Commercial Ctr Maidstone East (South) Maidstone West London Road P&R Willington Street P&R

4.12 SURVEY RESULT INTERPRETATION

4.12.1. The surveys which have been undertaken represent a snapshot of demand for car parking in neutral conditions. There is however an inherent variation in car parking demand across a day and week with a degree of randomness which becomes especially apparent when dealing with smaller sample sizes (such as when looking at individual car parks). The conditions within any one car park will vary throughout a day and across days, weeks and months as a result of this randomness. It is generally sensible to read all survey results as being within a confidence interval of c.±5-10%.

4.13 CAR PARKING CURRENT DEMAND & OCCUPANCY

4.13.1. The graphs shown in Figure 35 and Figure 36 summarise the overall demand for parking across the town centre throughout each day. These parking accumulations compare to the 4,832 and 5,179 spaces available on each of the Thursday and the Saturday respectively. This shows that the town centre was busiest on the survey days at 1115 on the Thursday at 68% of capacity and 1430 on the Saturday at 65% of capacity.

Figure 35 – Car Parking Accumulation, Thursday

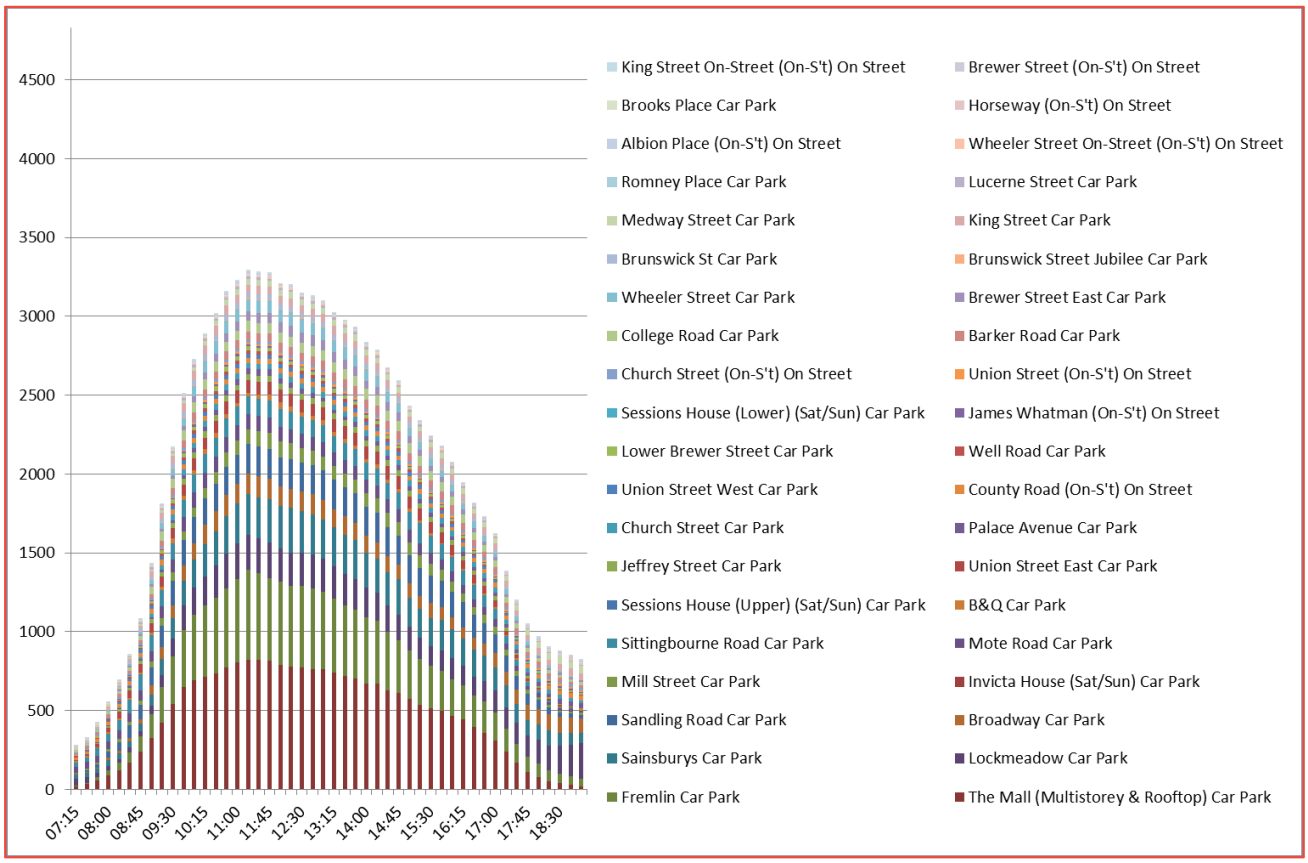
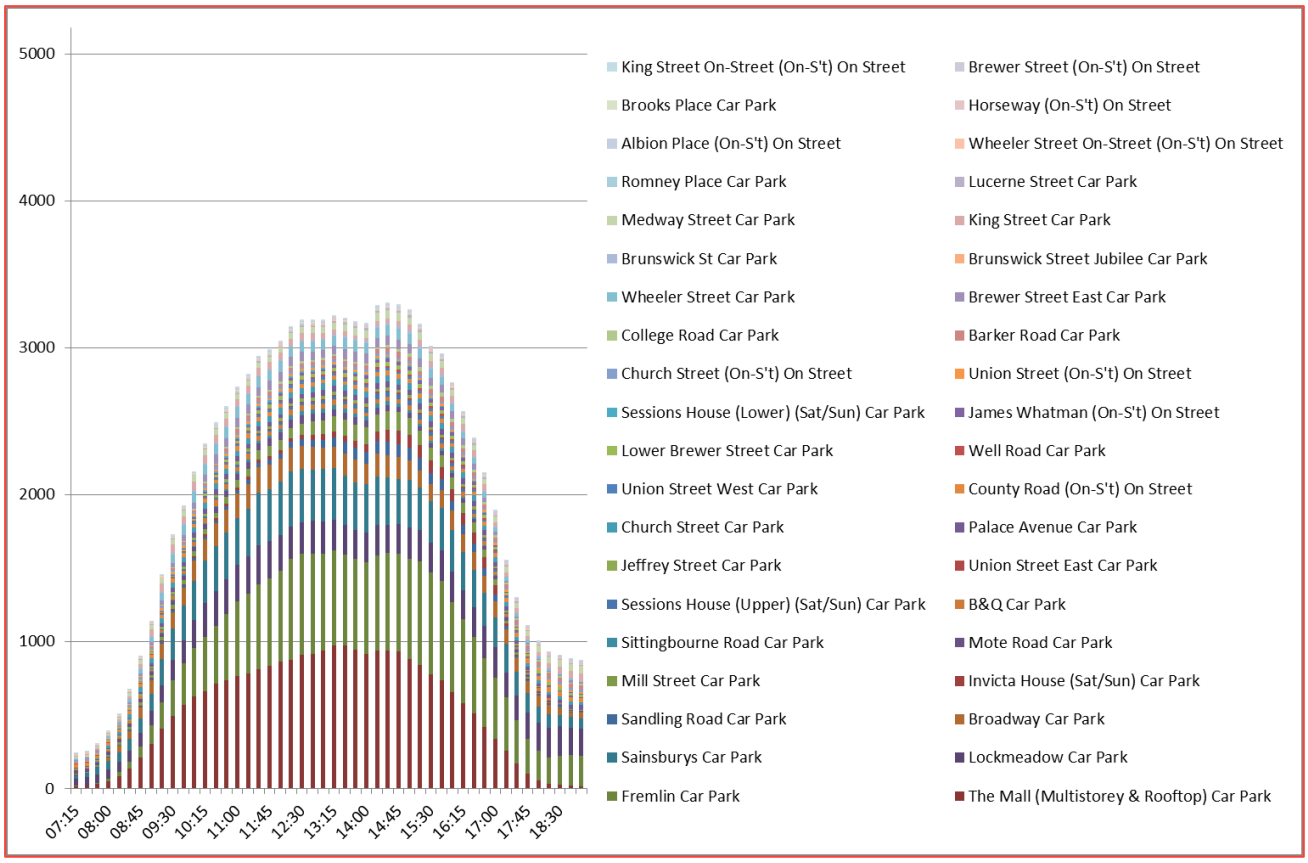


Figure 36 – Car Parking Accumulation, Saturday



4.13.2. The overall demand can be broken down by each zone in the Town Centre to understand the relative stress in each area. This is shown in Figure 37 and Figure 38.

Figure 37 – Car Parking Accumulation by Zone, Thursday

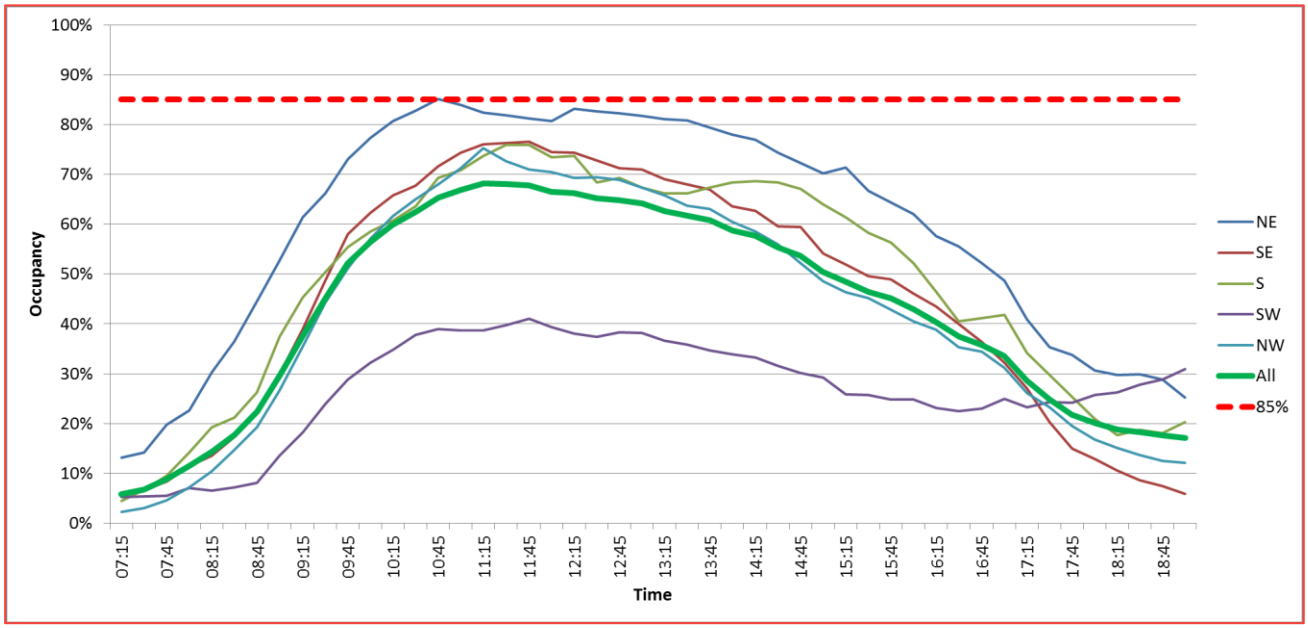
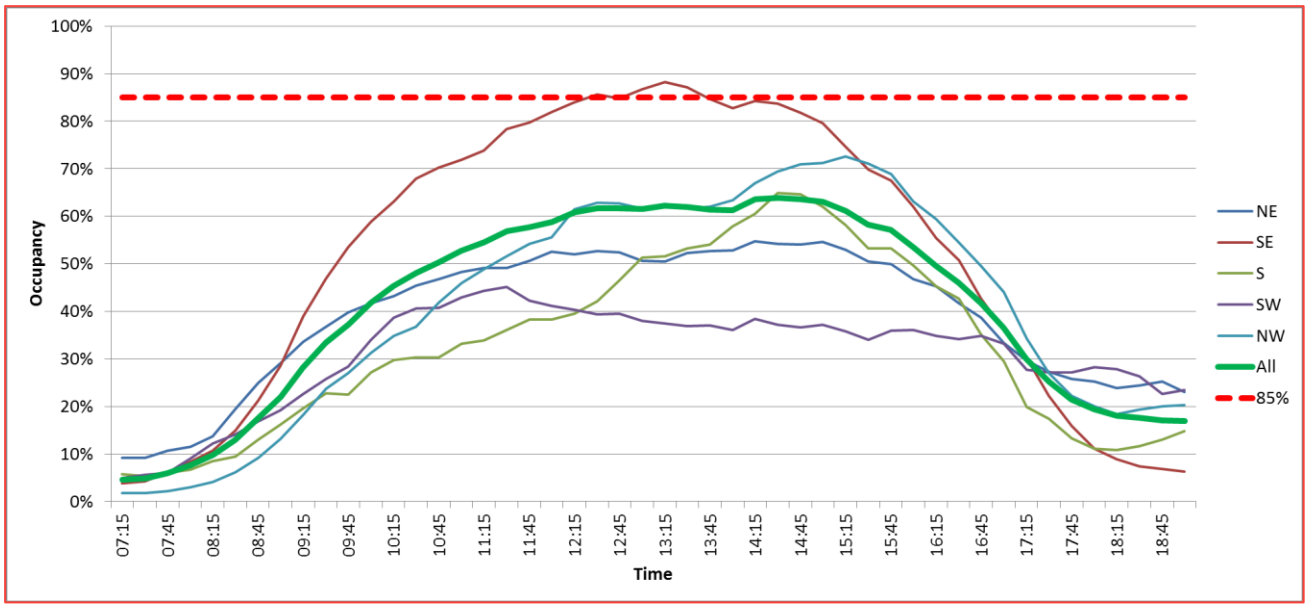


Figure 38 – Car Parking Accumulation by Zone, Saturday



4.13.3. On a Thursday, Figure 37 shows that the North East zone of the town centre operates at around 85% of capacity at peak while the South West Zone operates at only c.40% capacity at peak. On a Saturday however, Figure 38 shows the South East Zone operating at around 90% of capacity at peak with the South West operating at around 45% capacity at peak. Other zones tend to be representative of the average picture across the town centre.

4.13.4. The overall demand can also be broken down by the stay limits of car parks to understand the relative stress in each stay limit. This also, by proxy, reflects the distance from the town centre with stay limit typically increasing by distance. This is shown in Figure 39 and Figure 40.

Figure 39 – Car Parking Accumulation by Stay Limit, Thursday

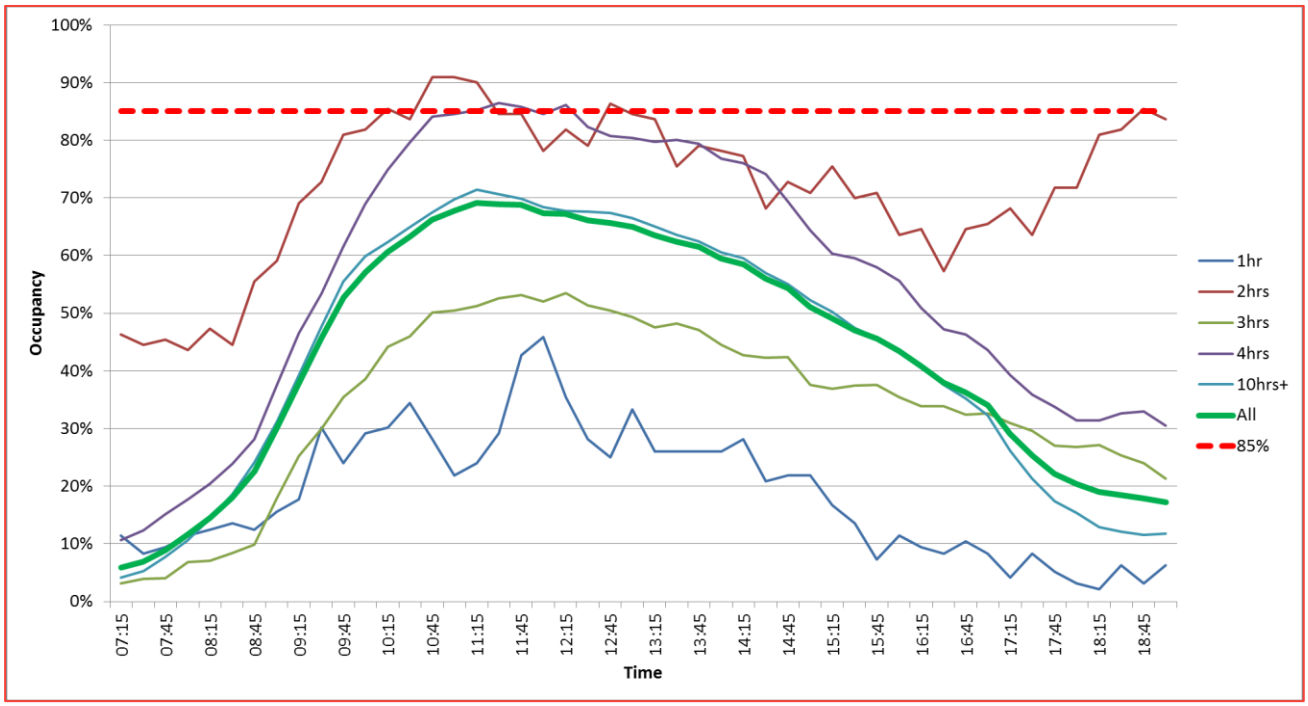
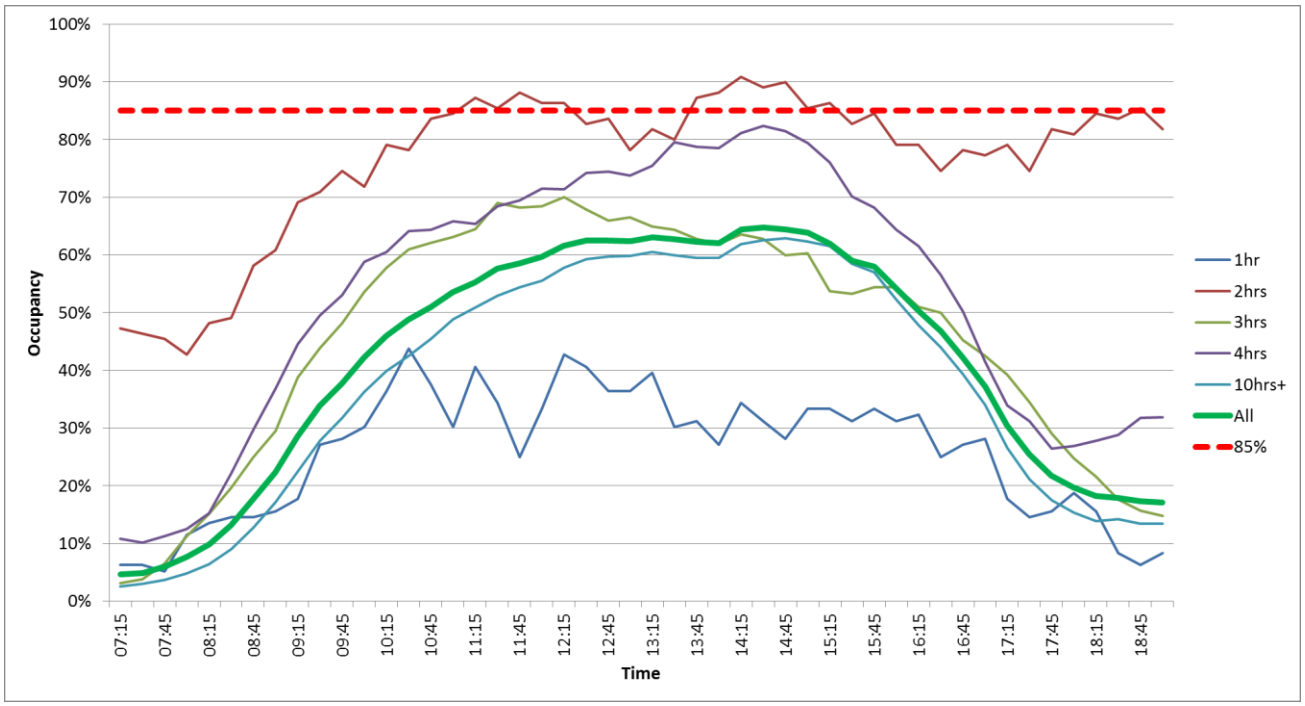


Figure 40 – Car Parking Accumulation by Stay Limit, Saturday



4.13.5. It is typically the shorter stay limits which are busy as would be expected with the more remote longer stay car parks generally having significant spare capacity.

4.13.6. The overall demand can again be broken down by the stay limits of car parks and also the operator. Figure 41 and Figure 42 show the stress in MBC car parks by stay limit.

Figure 41 – Car Parking Accumulation by Stay Limit, MBC Only, Thursday

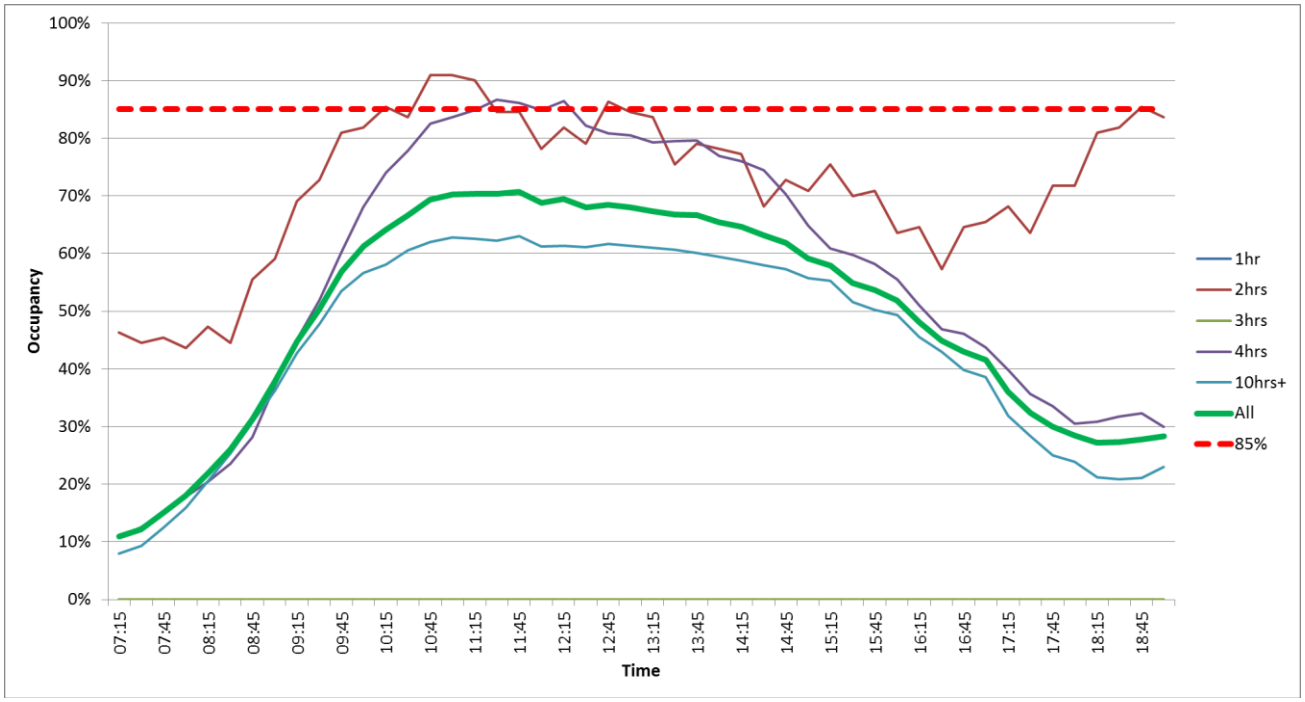
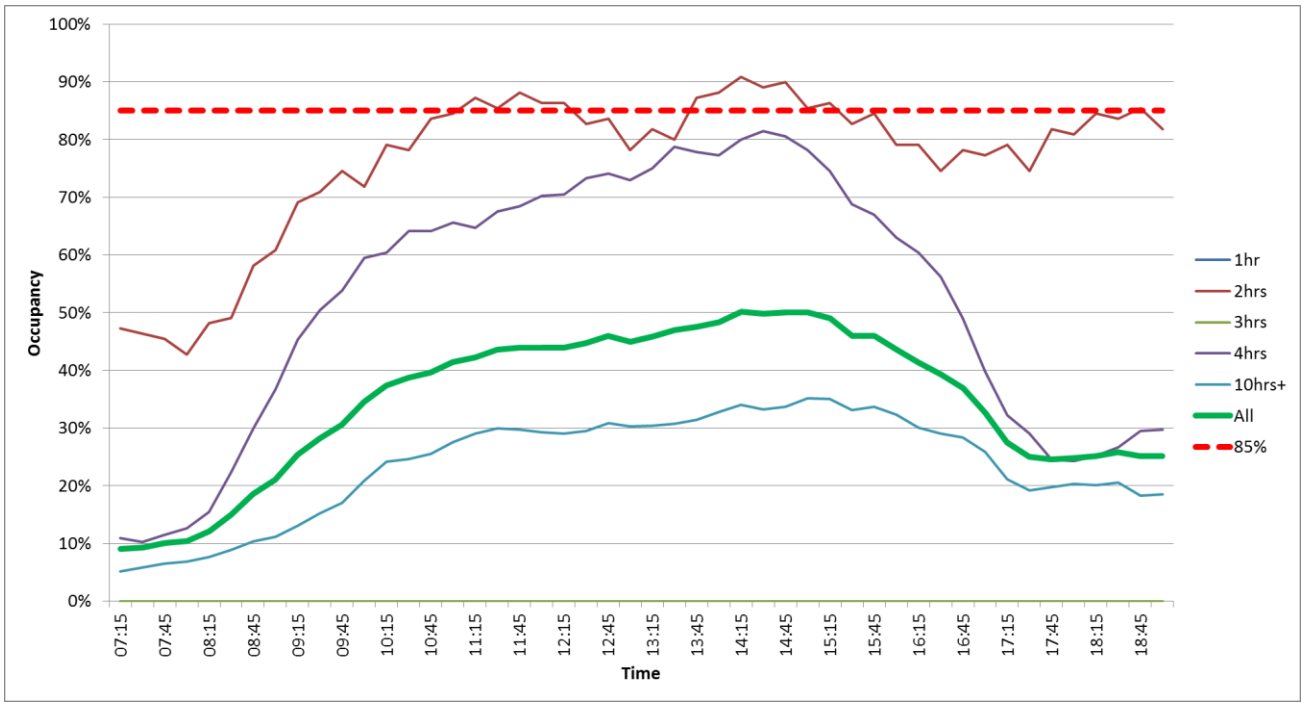


Figure 42 – Car Parking Accumulation by Stay Limit, MBC Only, Saturday



4.13.7. Figure 43 and Figure 44 show how the demand within each zone and across the town varies within each car park, as a percentage of the overall capacity of each car park, at 1115 on the Thursday and 1430 on the Saturday. This further illustrates the stress within and across each zone. In the South, South East and Eastern zones car parks are operating above an efficient occupancy of c.85% at 1115 of a Thursday. On the Saturday this stress also extends into car parks in the North West zone.

Figure 43 – Car Parking Occupancy, Thursday

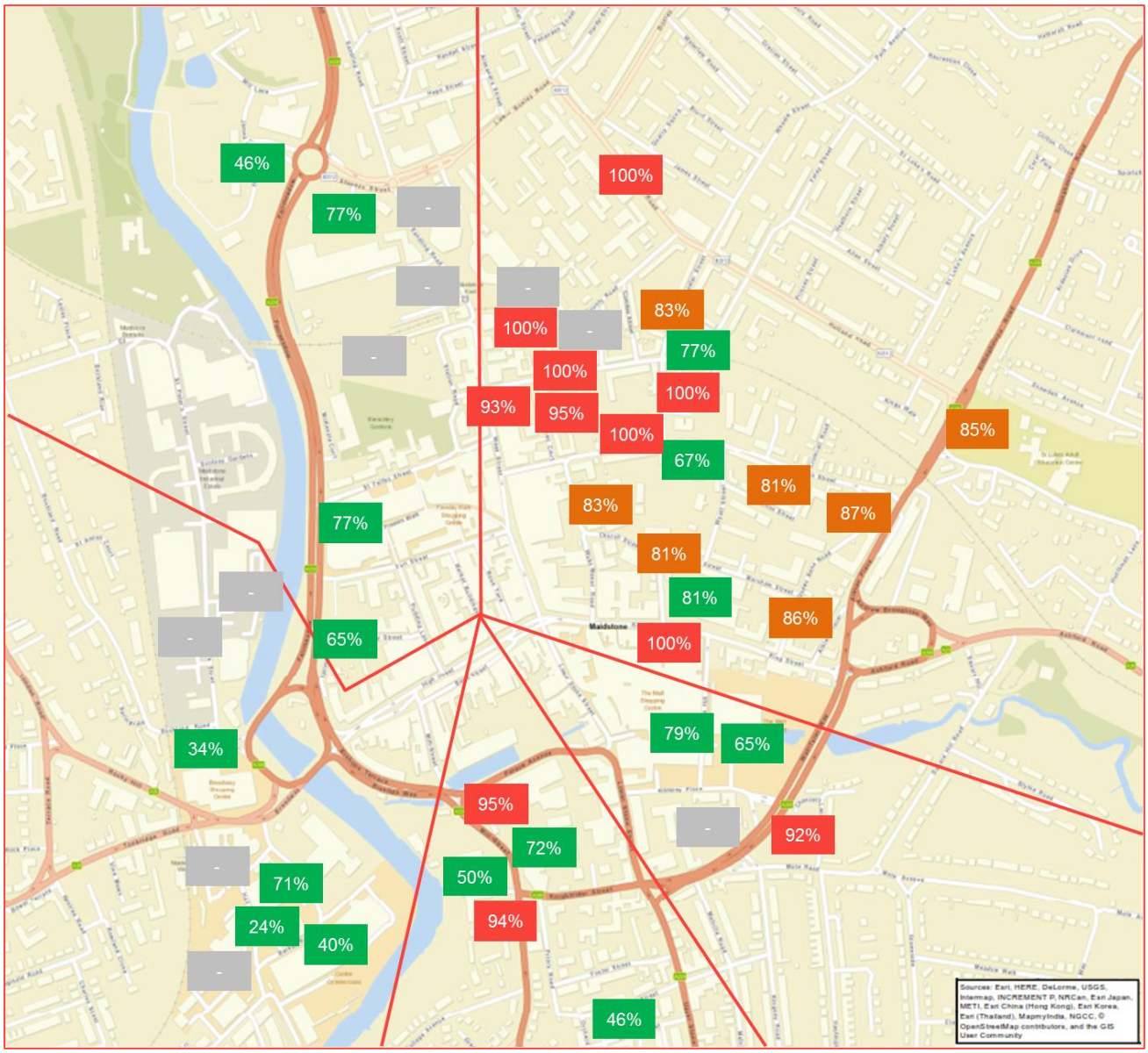
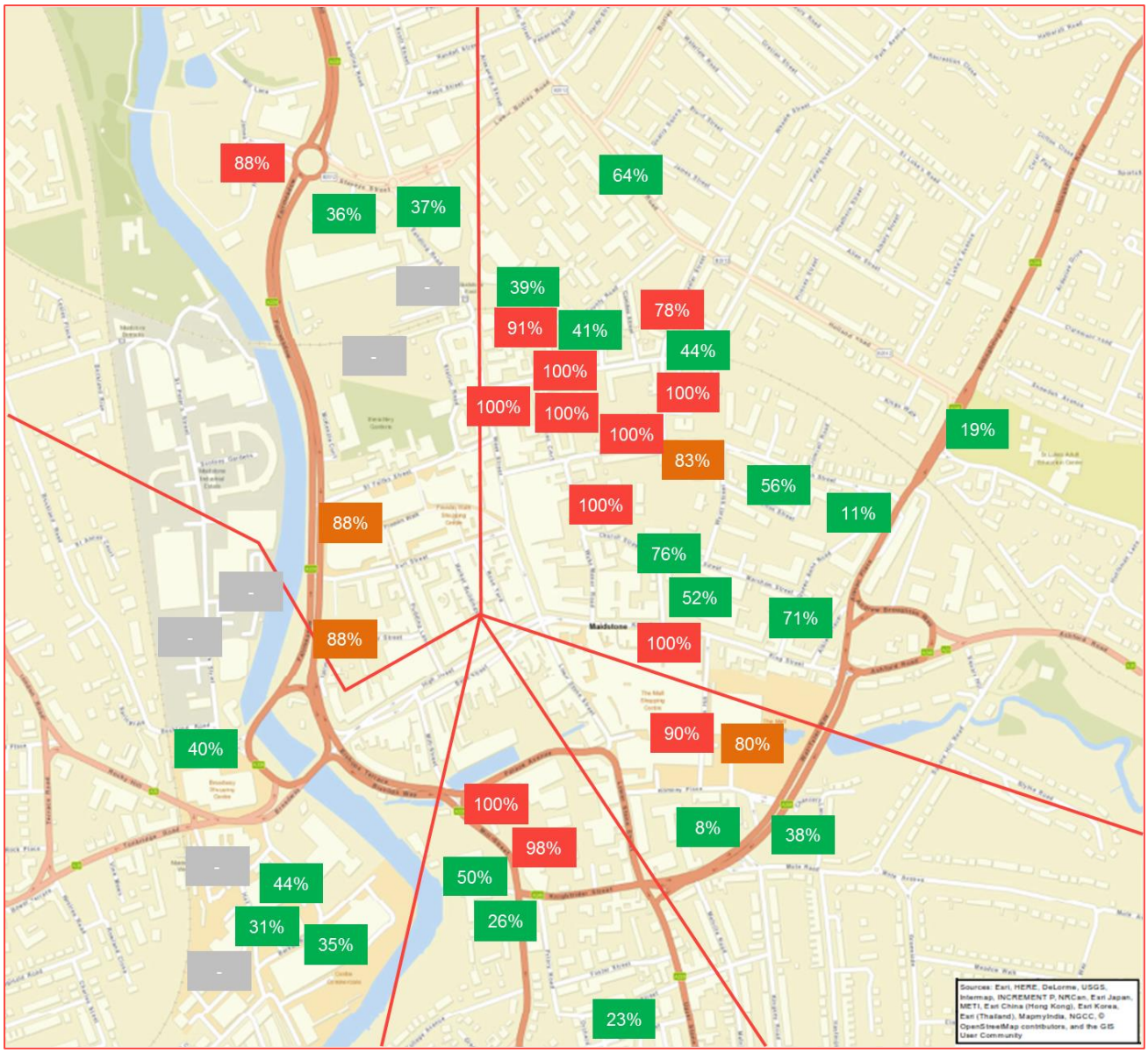


Figure 44 – Car Parking Occupancy, Saturday



4.13.8. Figure 45 and Figure 46 show the accumulation in each car park in absolute terms at 1115 on the Thursday and 1430 on the Saturday.

Figure 45 – Car Parking Accumulation, Thursday

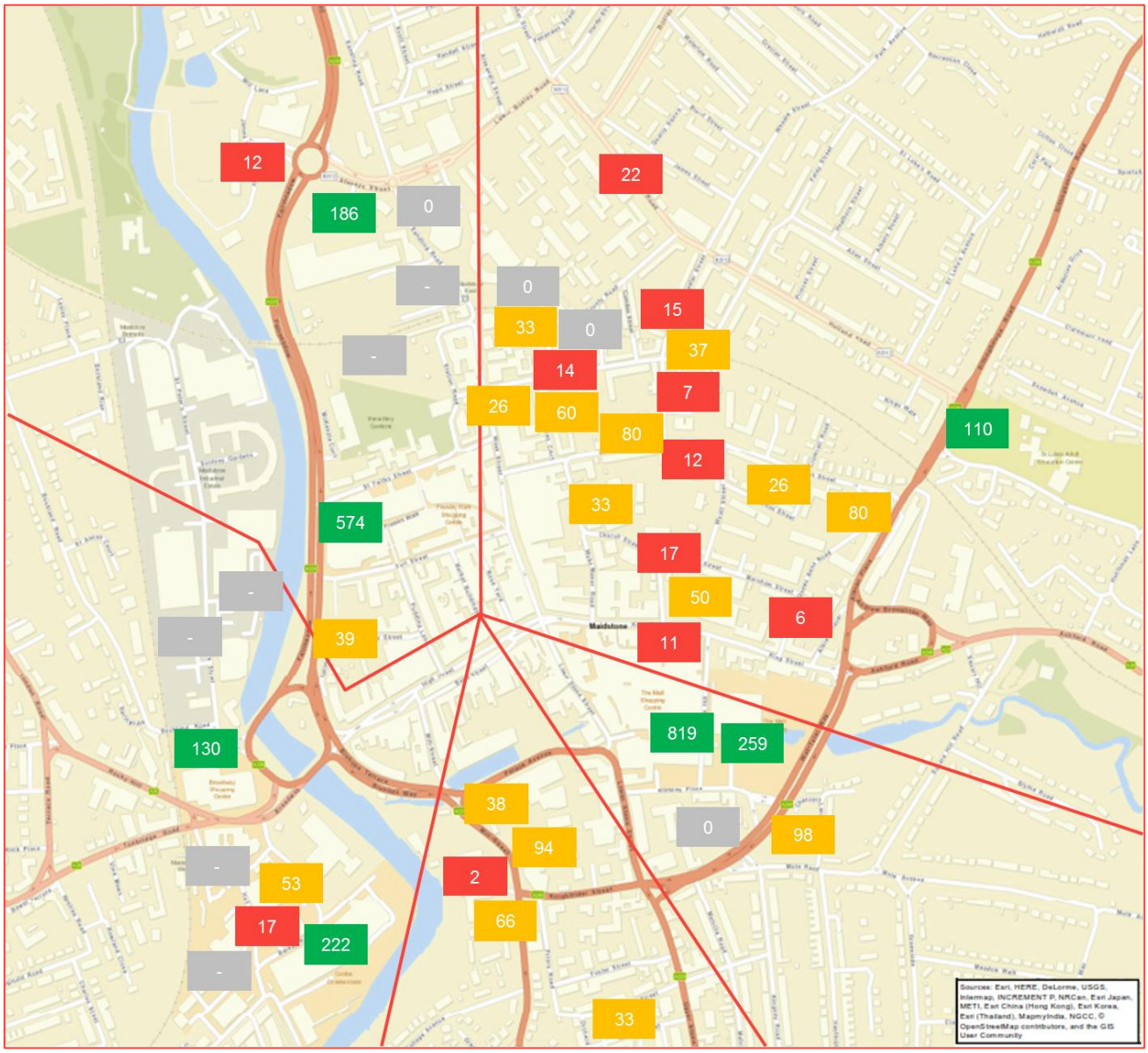
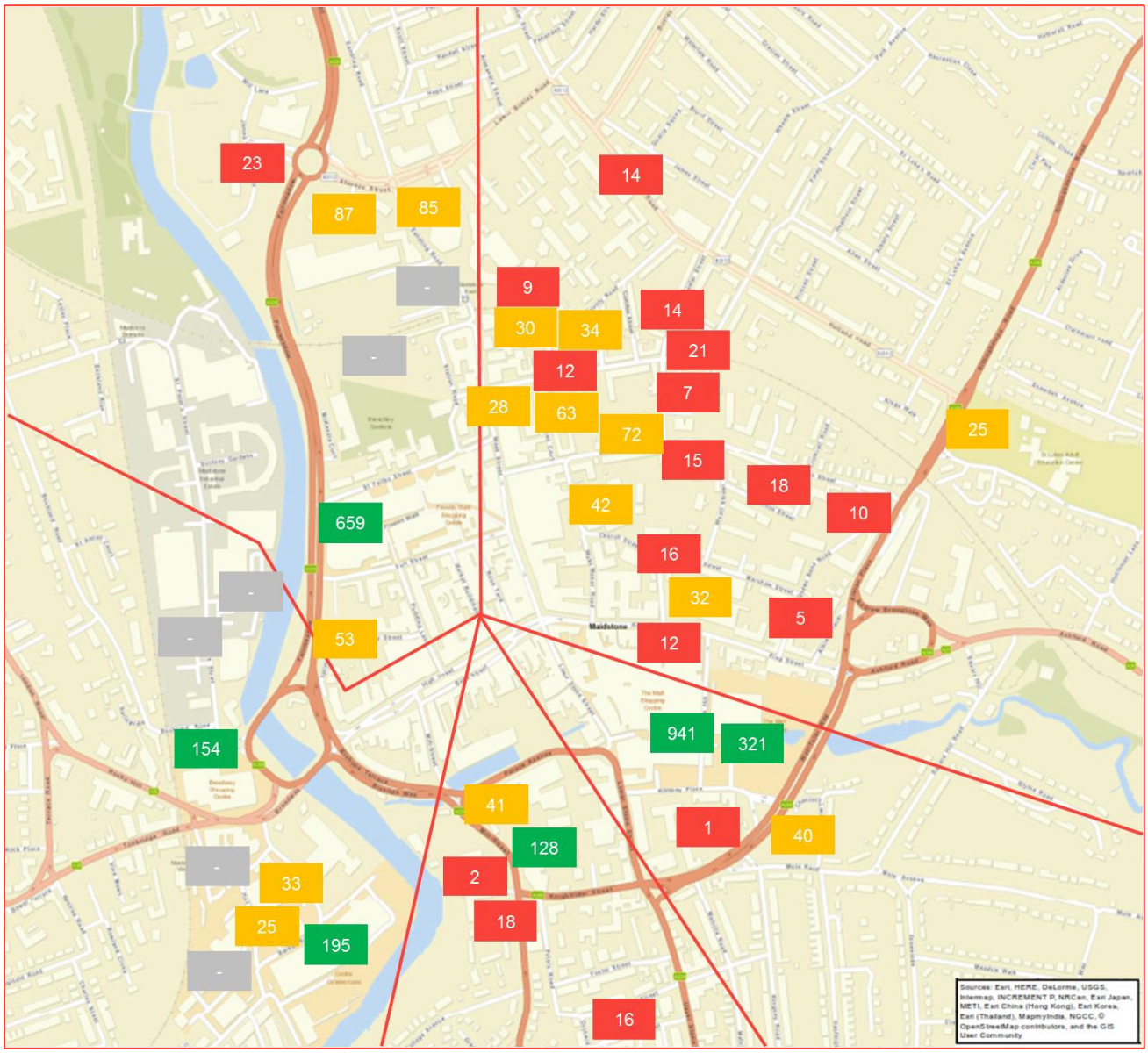


Figure 46 – Car Parking Accumulation, Saturday



4.13.9. Figure 47 and Figure 48 show the spaces which remain empty in each car park in absolute terms at 1115 on the Thursday and 1430 on the Saturday.

Figure 47 – Car Parking Empty Spaces, Thursday

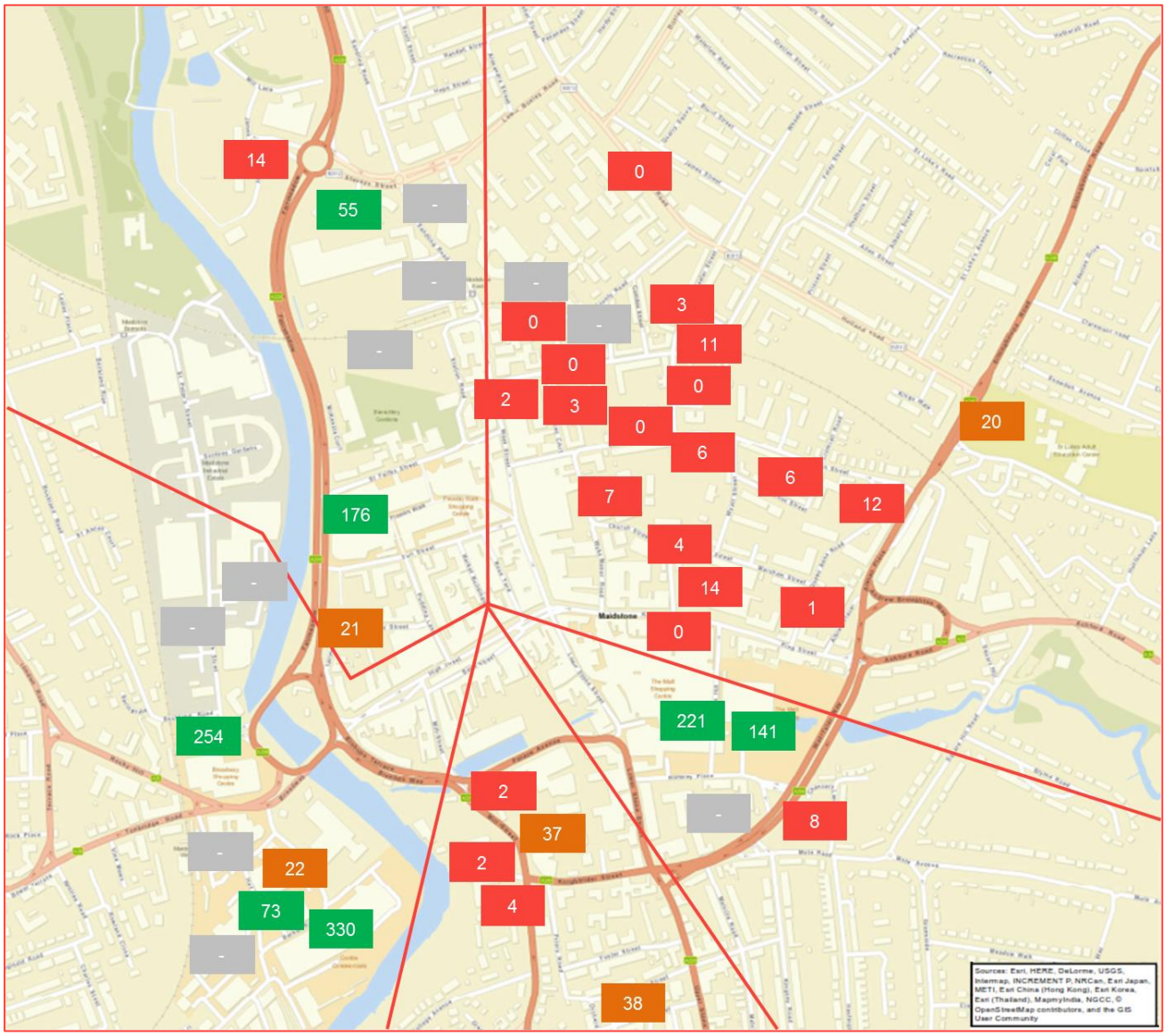
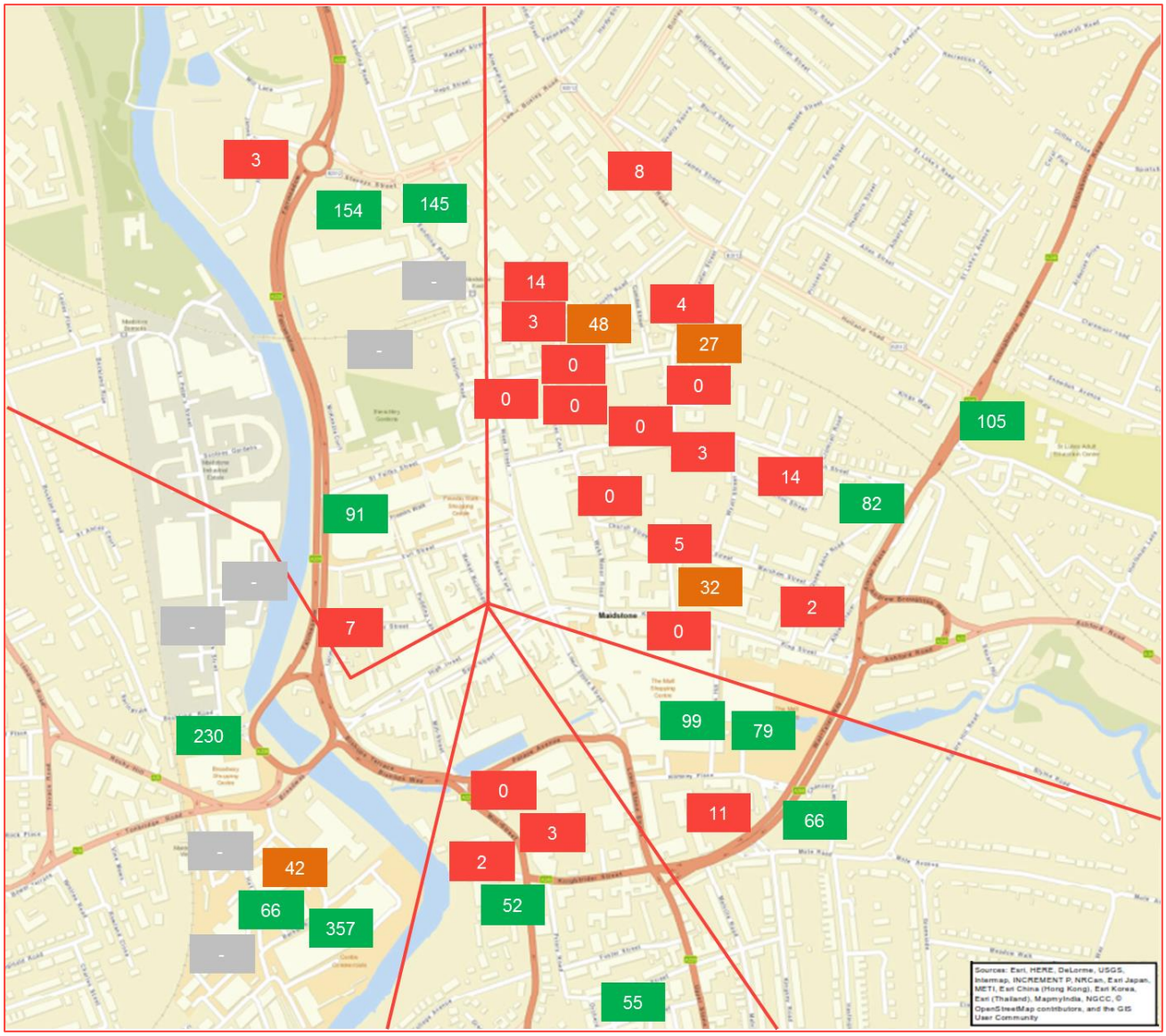


Figure 48 – Car Parking Empty Spaces, Saturday



4.13.10. The combination of Figure 43 and Figure 44, Figure 45 and Figure 46 with Figure 47 and Figure 48 shows clearly where car parks are most stressed, in most cases because the car parks in question are quite small.

4.13.11. Each car park has its own unique demand profile. Figure 49 and Figure 50 shows the demand variation within each car park across each day.

Figure 49 – Car Parking Occupancy, Thursday

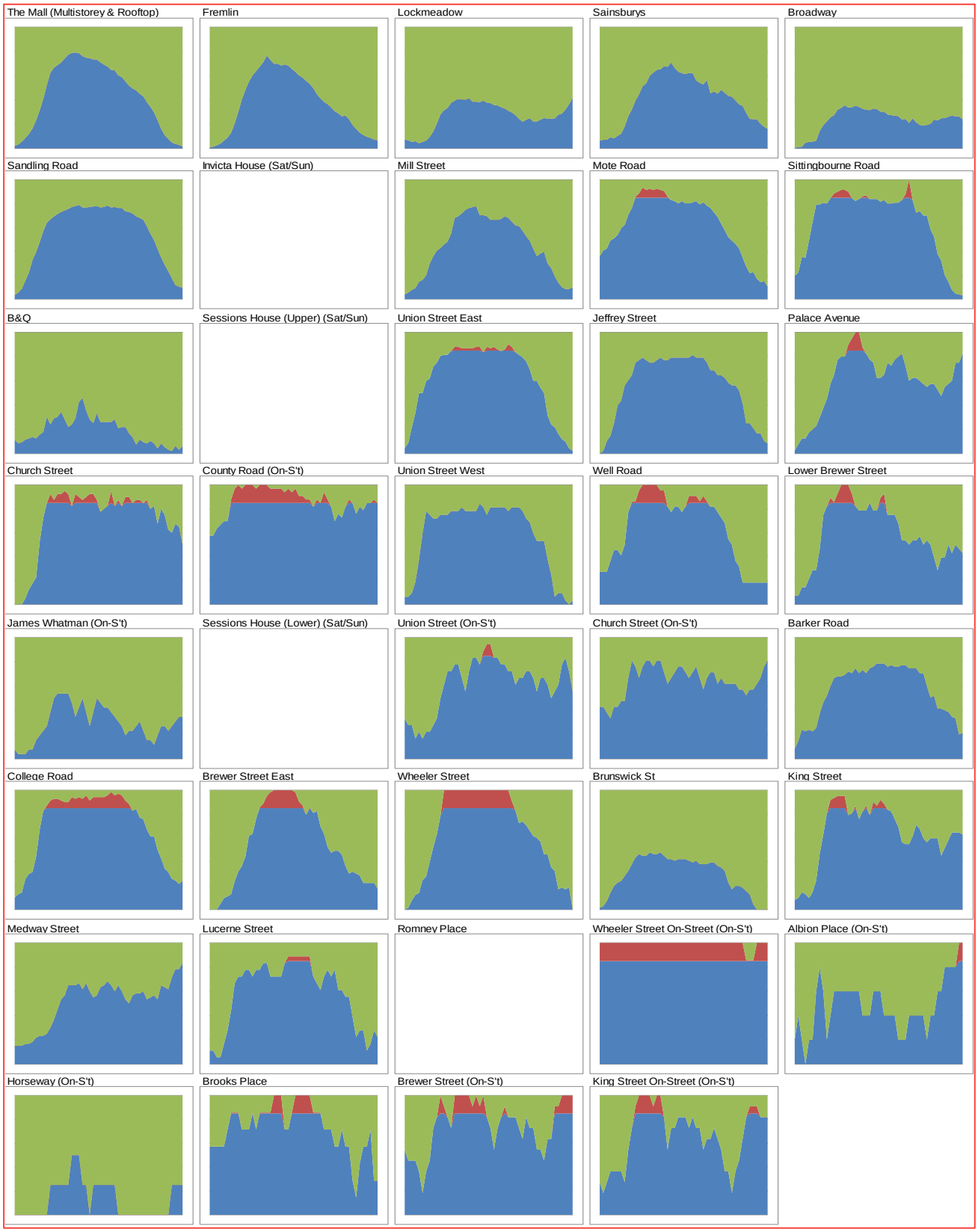
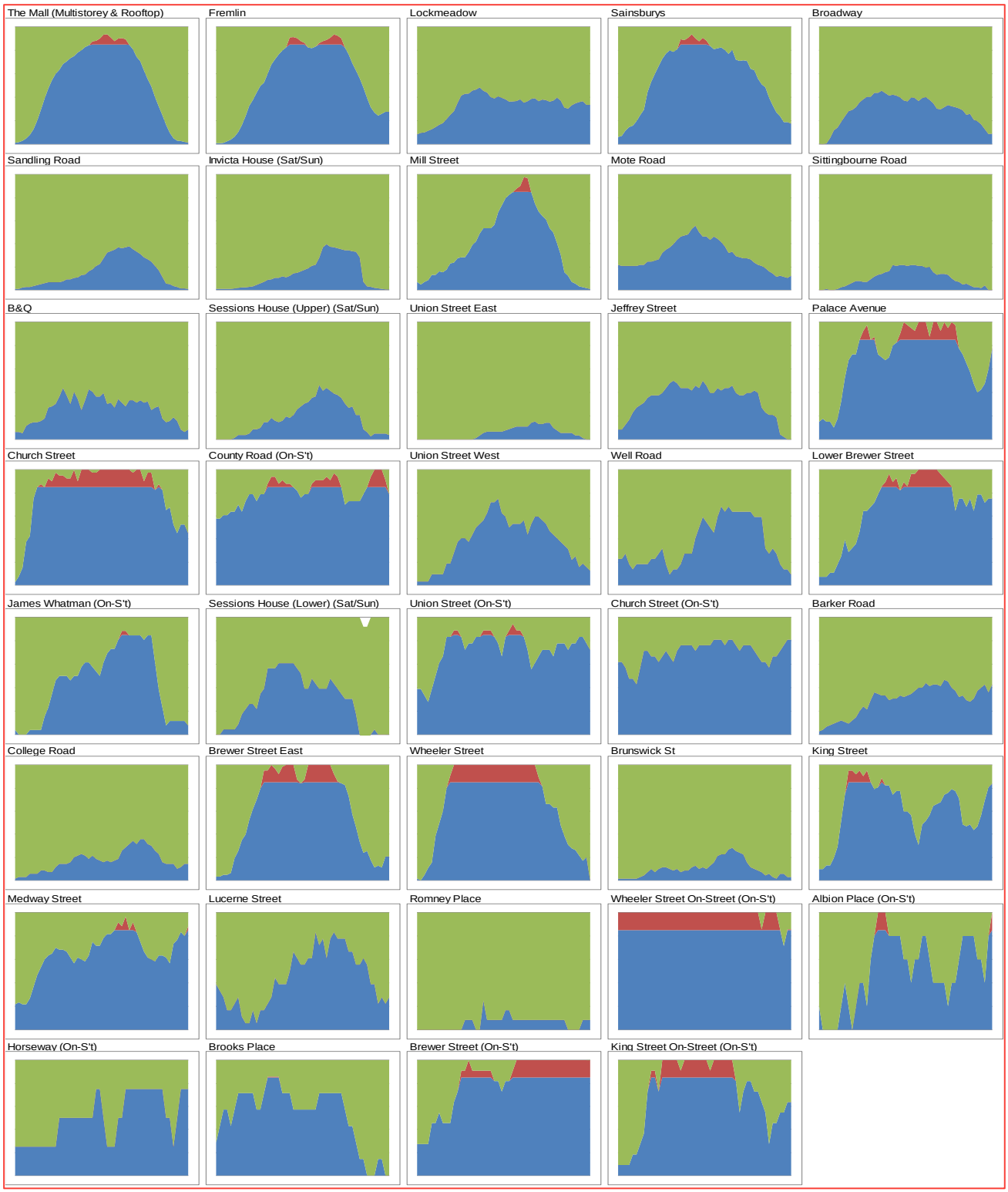


Figure 50 – Car Parking Occupancy, Saturday



4.13.12. Figure 49 and Figure 50 show that some car parks tend to be bust throughout the day while others tend to peak for only a short time.

4.13.13. Figure 51 and Figure 52 show the peak accumulation within each car park on Thursday and Saturday respectively which emphasises the relative importance of each car park to the overall own centre supply.

Figure 51 – Car Parking Peak Accumulation, Thursday

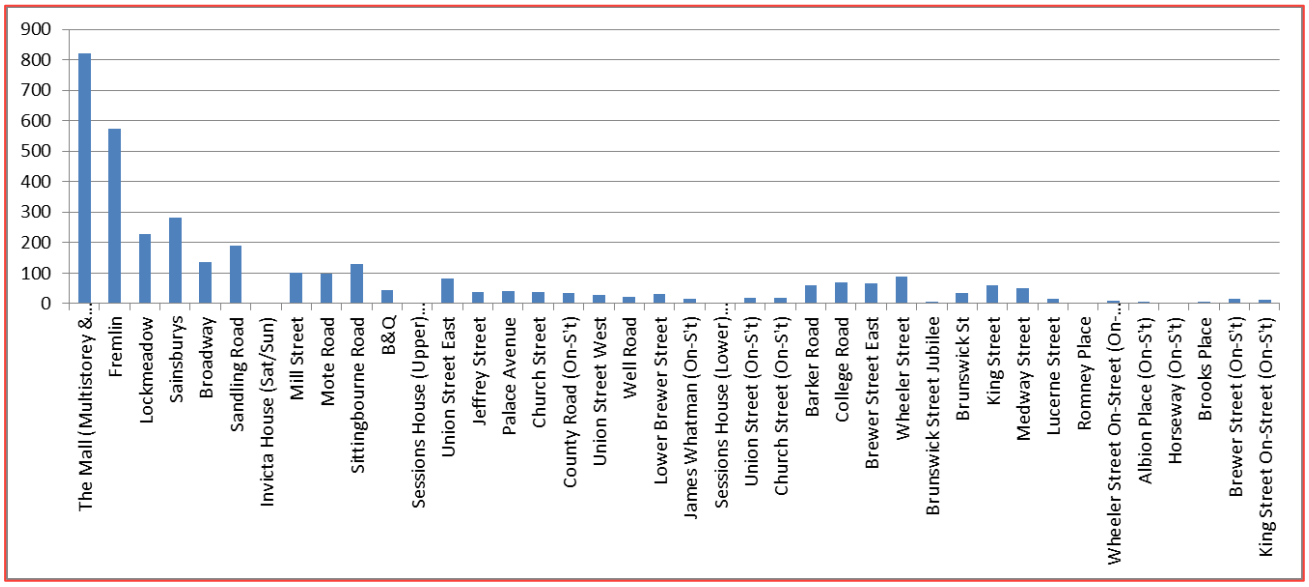
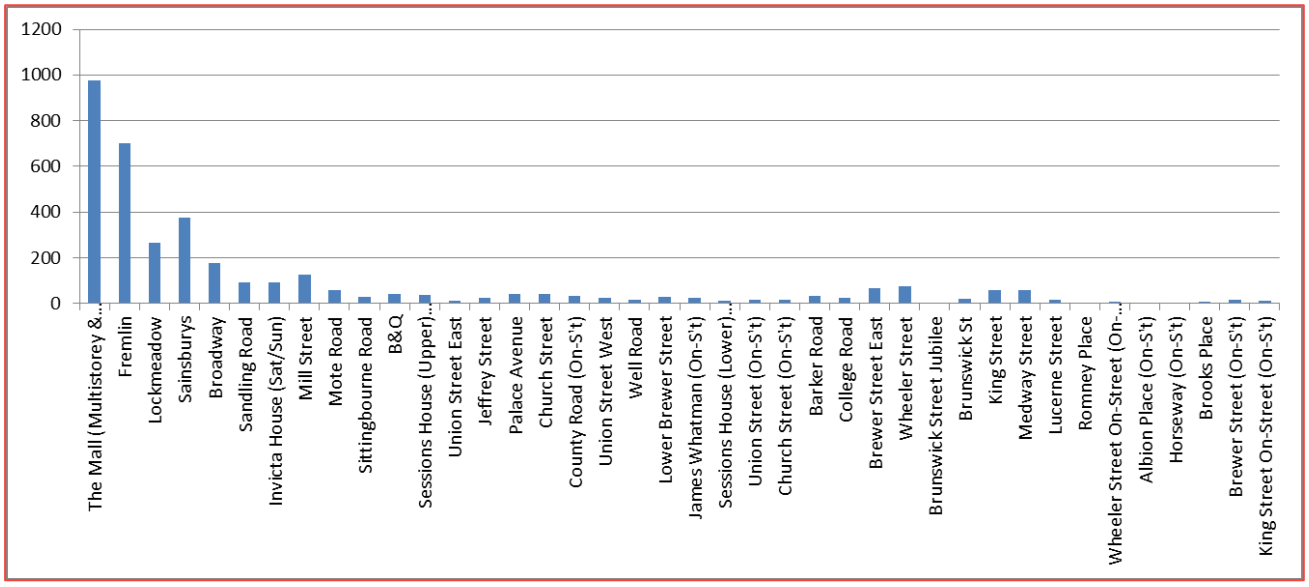


Figure 52 – Car Parking Peak Accumulation, Saturday



4.13.14. Figure 53 and Figure 54 show the total number of vehicles arriving at each park across the 0700-1900 period on Thursday and Saturday respectively. This further emphasises the relative importance of each car park to the overall supply and in particular with comparison to Figure 51 and Figure 52.

Figure 53 – Car Park Arrivals, Thursday

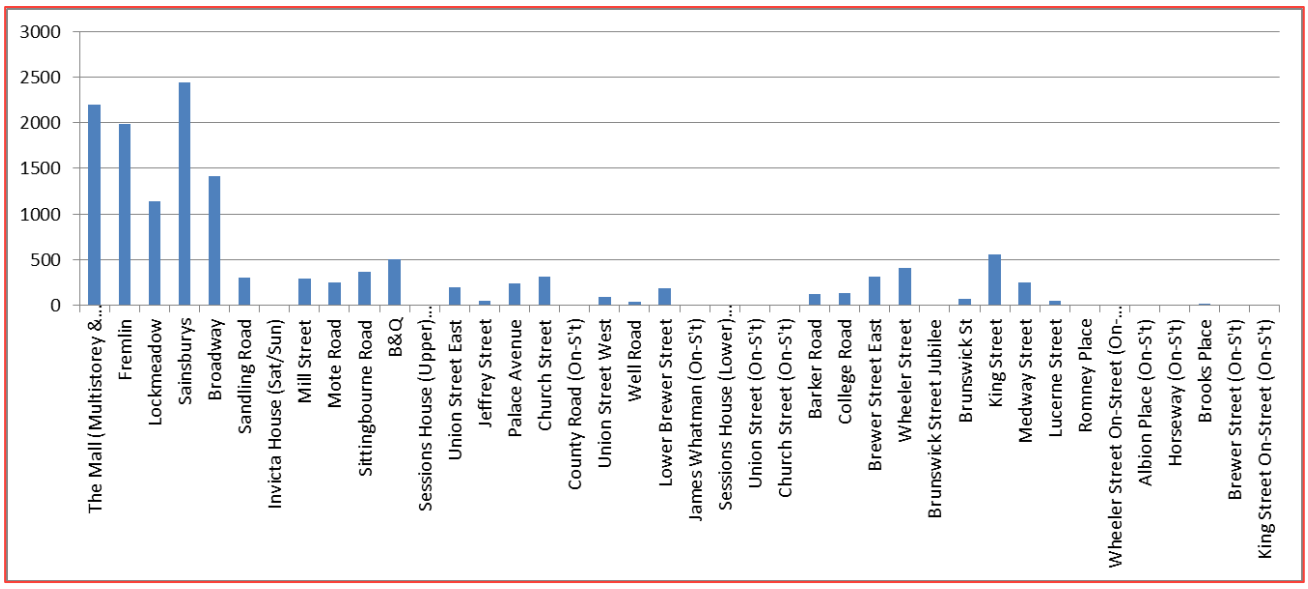
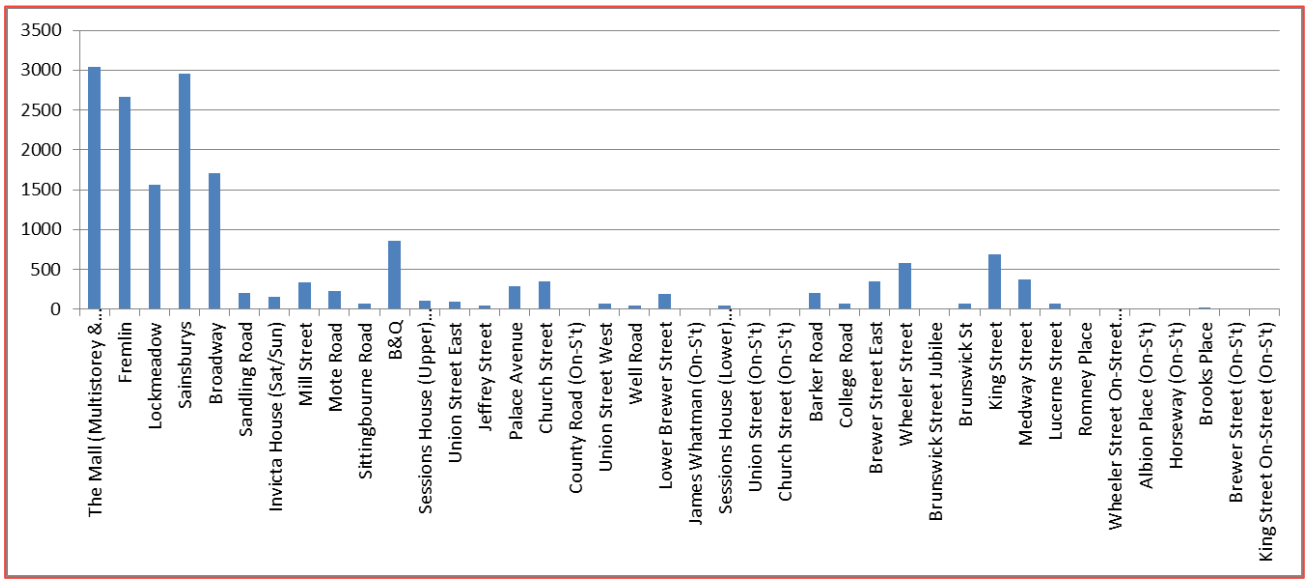


Figure 54 – Car Park Arrivals, Saturday



4.13.15. Comparing Figure 54 with Figure 52 shows the relative importance of Sainsbury's for example for journeys to the town centre (principally to Sainsbury's) accommodating the most vehicles across the day although the accumulation at any one time is modest compared with Fremlin and The Mall.

4.14 CAR PARKING DURATION OF STAY

4.14.1. Figure 55 and Figure 56 show the average duration of stay of a vehicle parked in each car park in each zone across the town centre. This largely reflects the stay limits.

Figure 55 – Car Parking Duration of Stay, Thursday

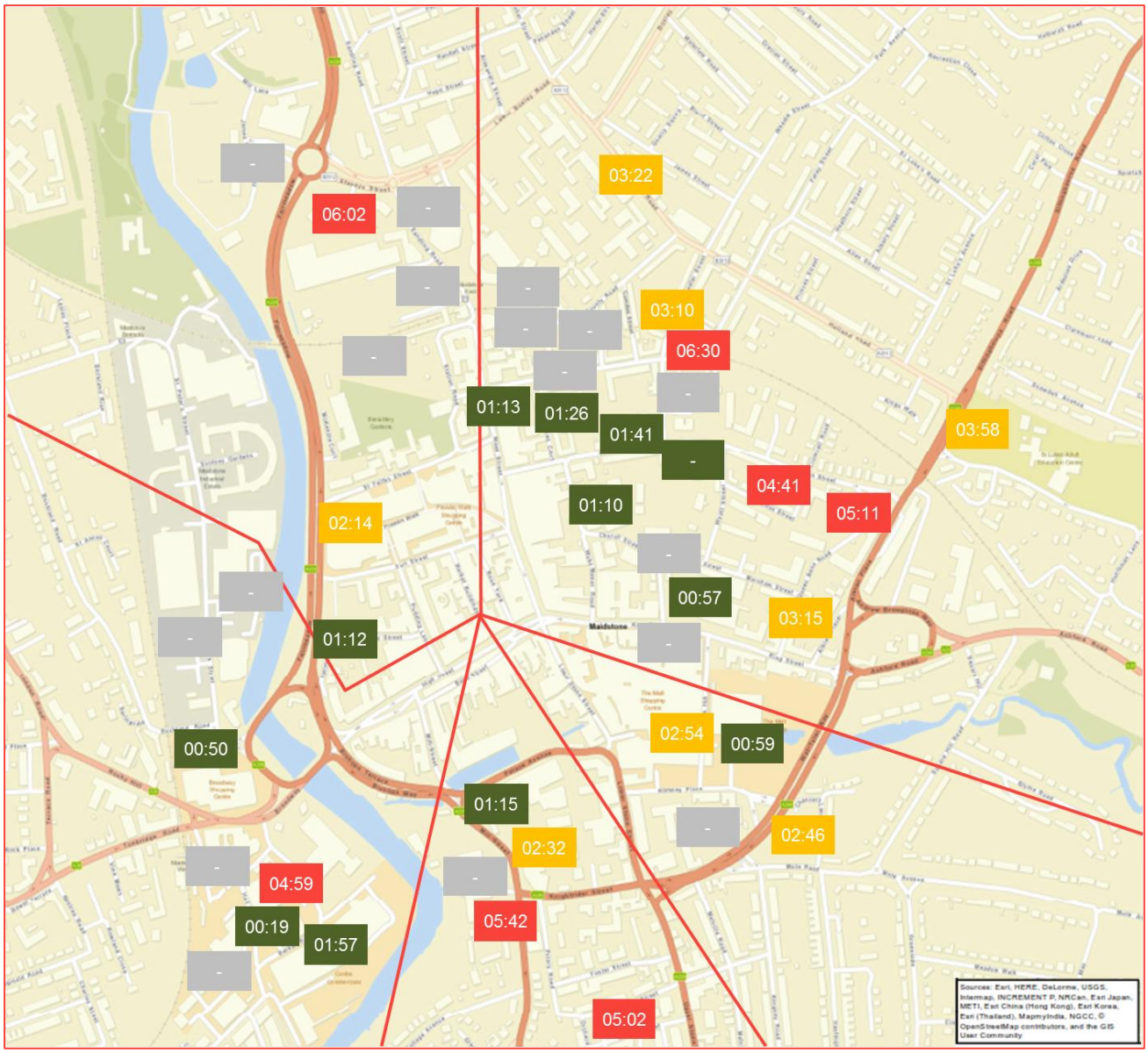
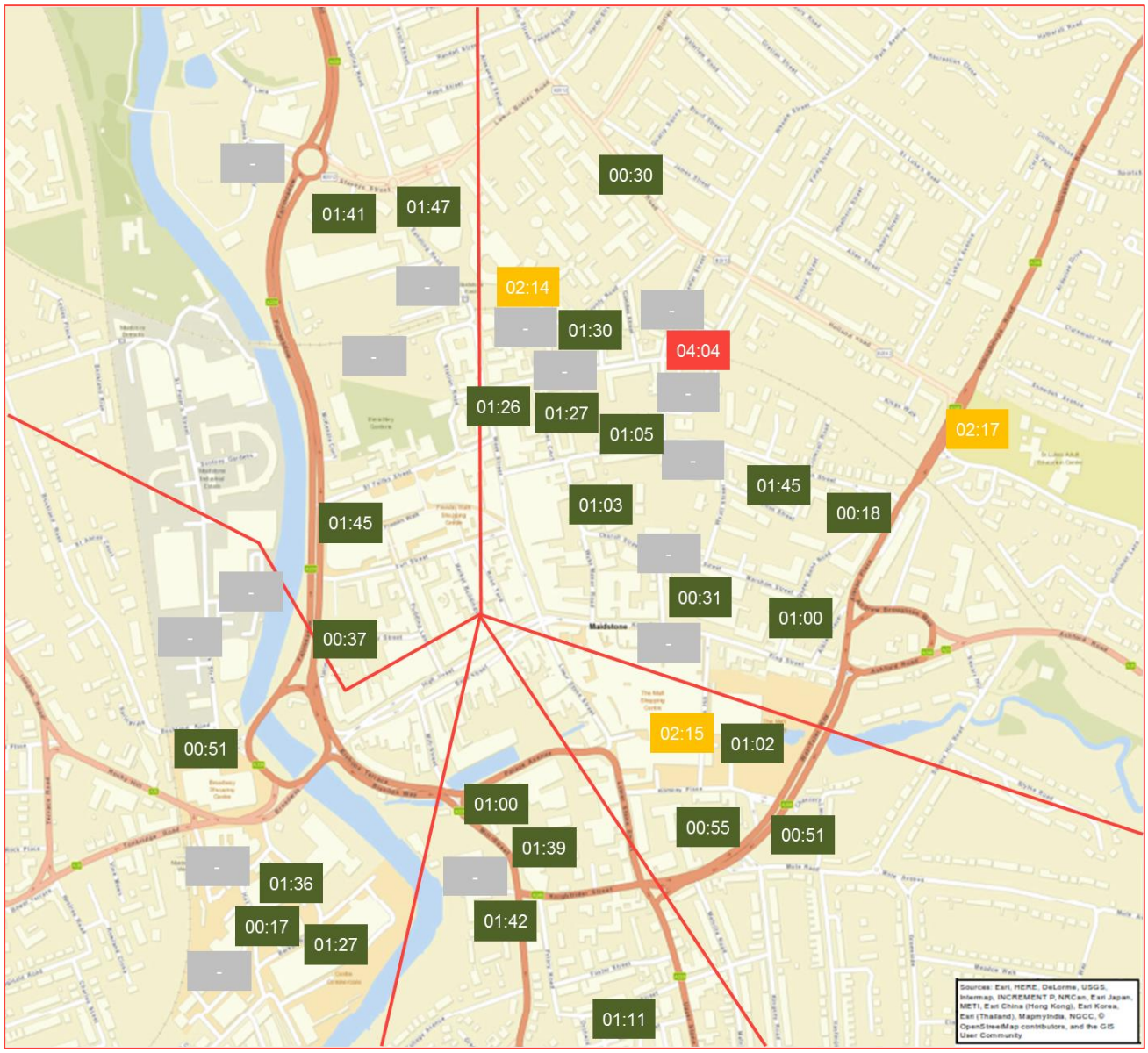


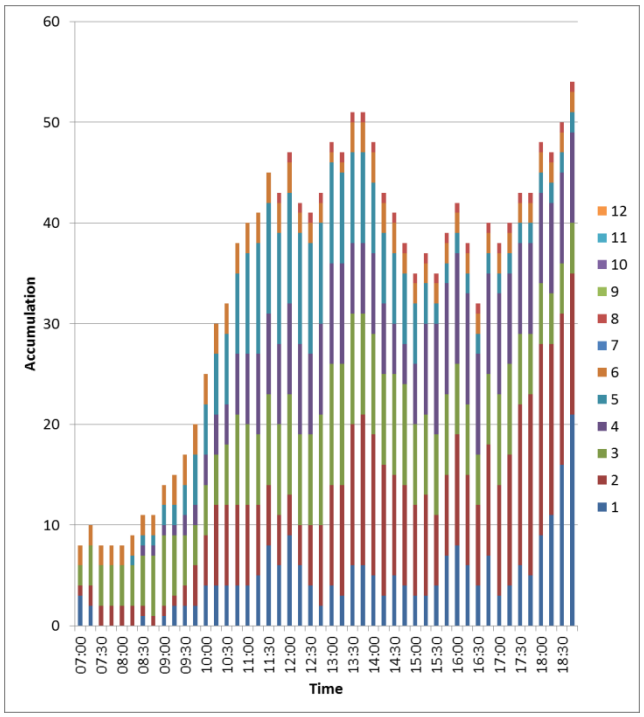
Figure 56 – Car Parking Duration of Stay, Saturday



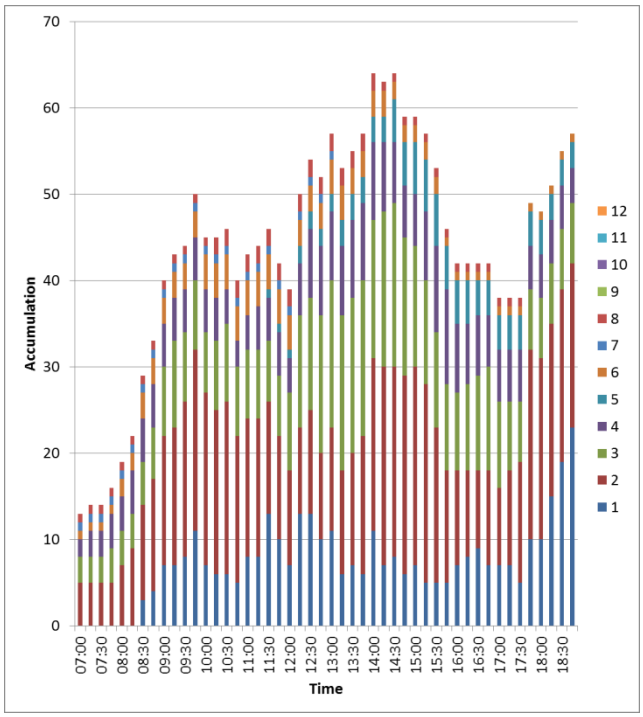
4.14.2. The much reduced average duration of stay in Figure 56 compared with Figure 55 demonstrates the current use of the outer car parks for 'weekday economy' employee and commuter parking. Retail employee parking would be present on both the weekday and the Saturday but the generally low average duration of stay on the Saturday indicates very little town centre employee parking is associated with retail.

4.14.3. Detailed duration of stay data was collected for a sample of car parks and is presented in Figure 57.

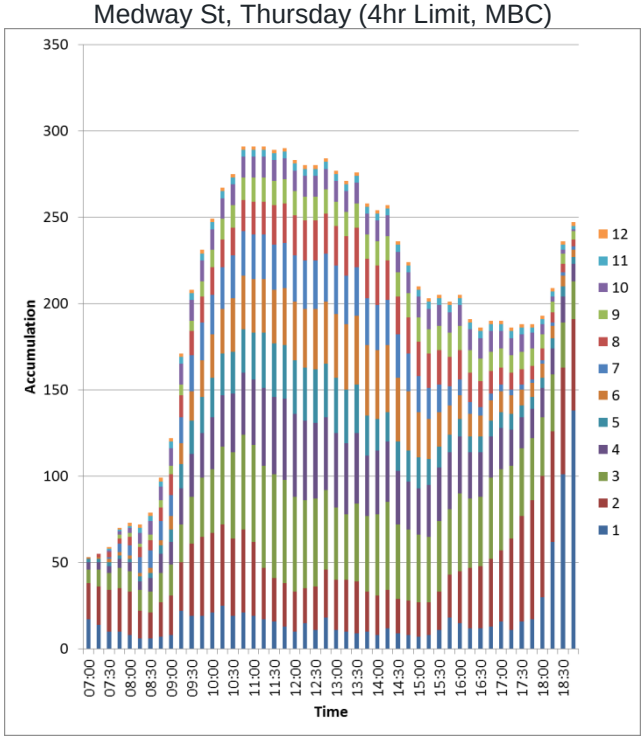
Figure 57 – Car Parking Duration of Stay Detailed Profiles



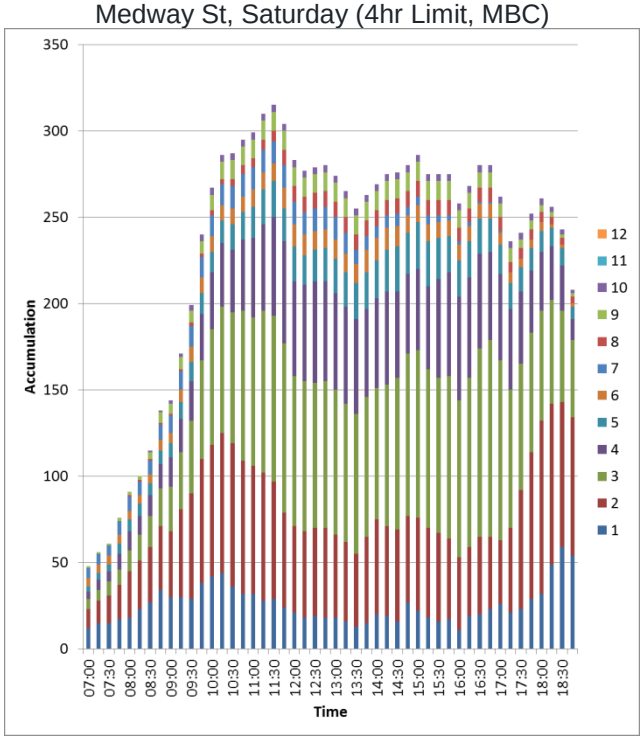
Medway St, Thursday (4hr Limit, MBC)



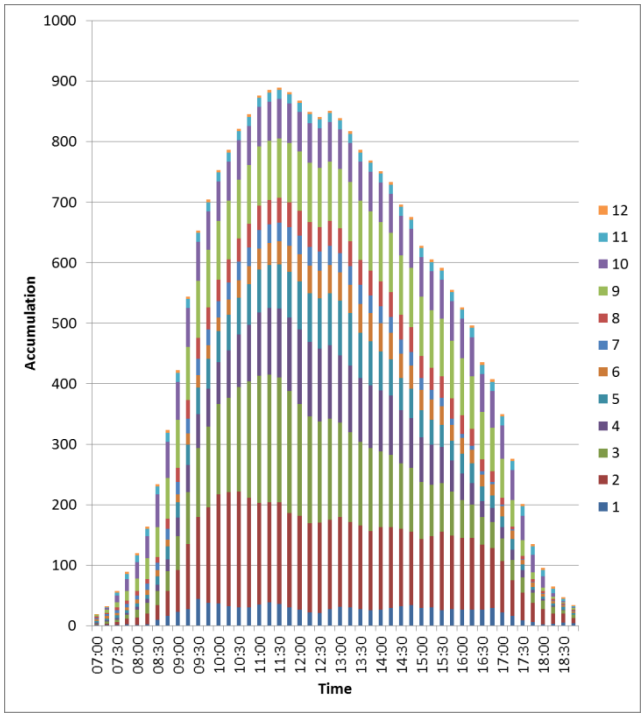
Medway St, Saturday (4hr Limit, MBC)



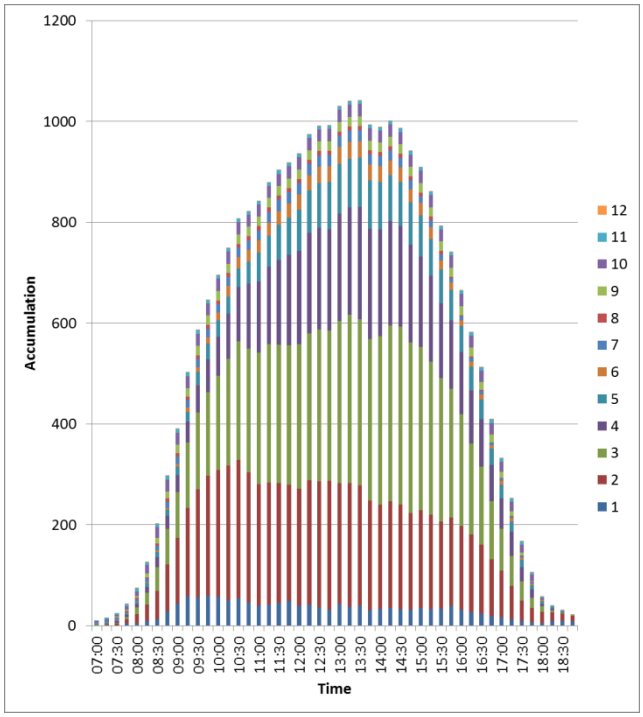
Lockmeadow, Thursday (10hr+ Limit, MBC)



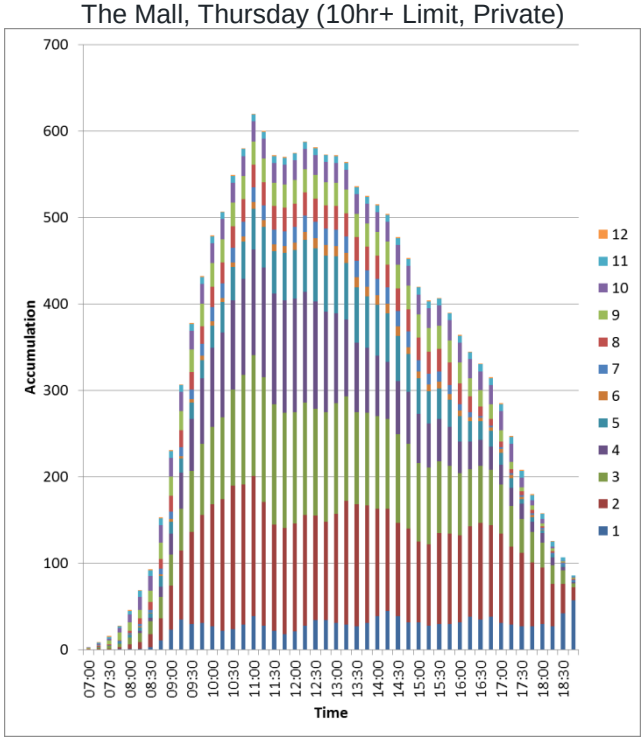
Lockmeadow, Saturday (10hr+ Limit, MBC)



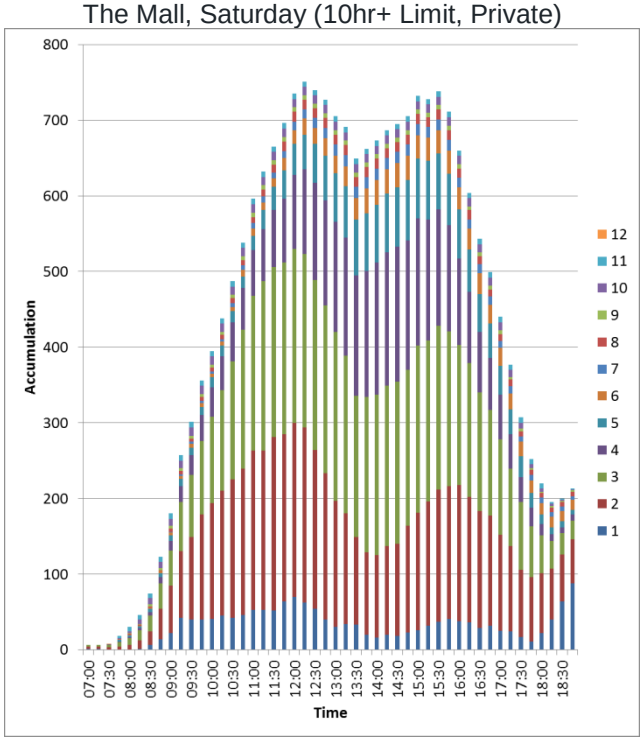
The Mall, Thursday (10hr+ Limit, Private)



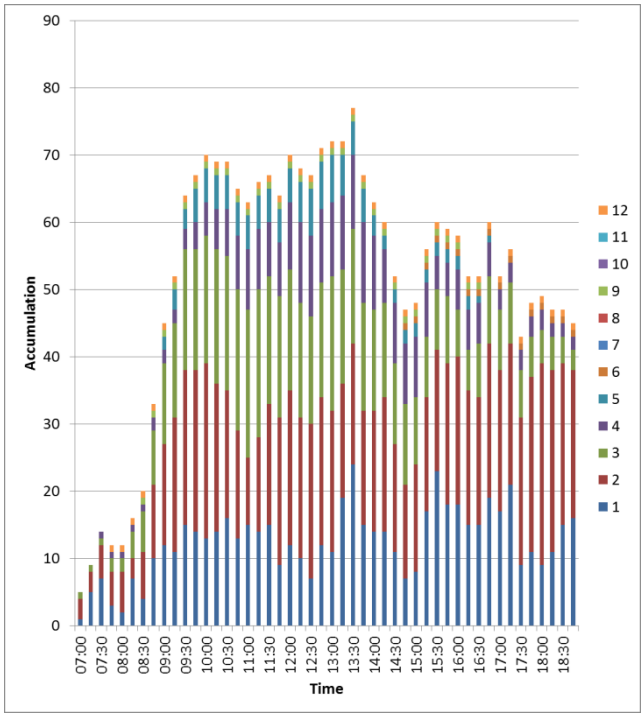
The Mall, Saturday (10hr+ Limit, Private)



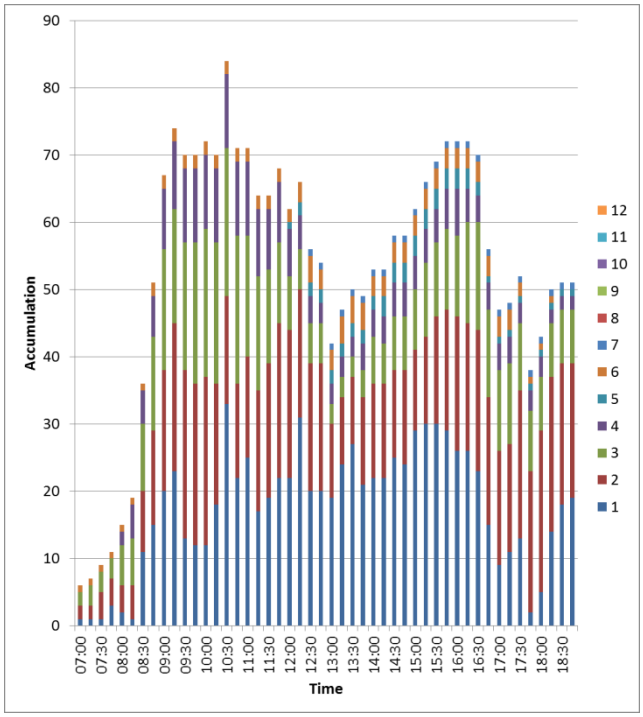
Fremlin, Thursday (10hr+ Limit, Private)



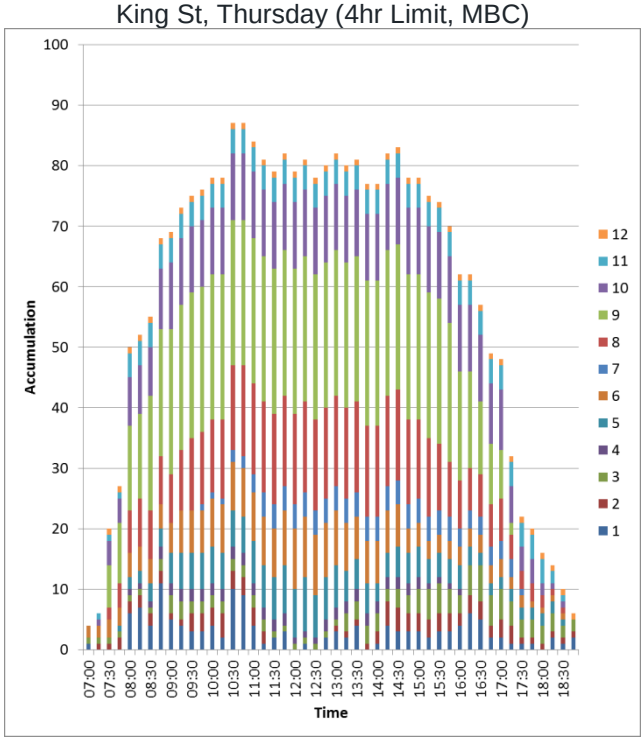
Fremlin, Saturday (10hr+ Limit, Private)



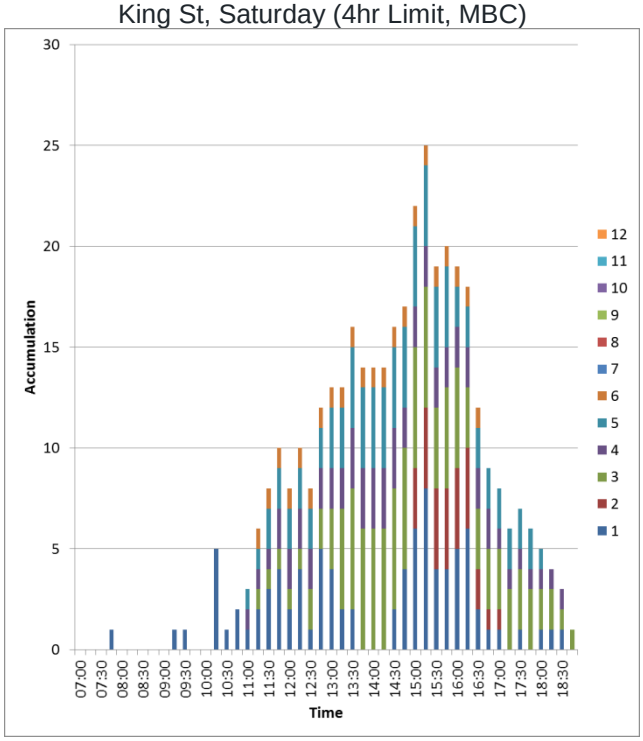
King St, Thursday (4hr Limit, MBC)



King St, Saturday (4hr Limit, MBC)



Union St, Thursday (10hr+ Limit, MBC)



Union St, Saturday (10hr+ Limit, MBC)

4.14.4. Figure 57 shows that many of the car parks are being used to accommodate a balanced spread of durations of stay (up to 1hr, up to 2hrs, up to 3hr etc). This again highlights the usage of the slightly more remote car parks for longer say with Lockmeadow and, in particular, Union Street accommodating a great deal of long stay parking. That is through a small number of cars across the day. This highlights the potential to manage the demand in busier stock by reducing stay limits; reducing stay limits from 4hrs to 3hrs or 2hrs for example could free up space in the busier central car parks for shorter duration visits.

4.14.5. Figure 58 and Figure 59 also the show the average duration of stay of a vehicle parked in each car park across the town centre. Note this data is not available for on street car parks.

Figure 58 – Car Parking Duration of Stay, Thursday

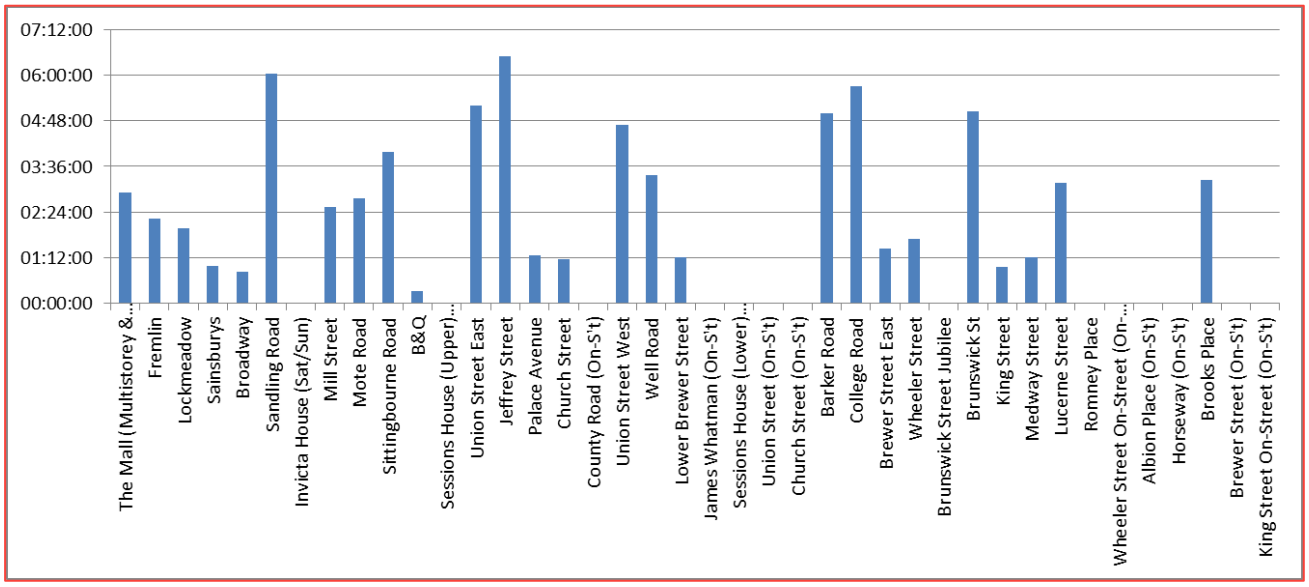
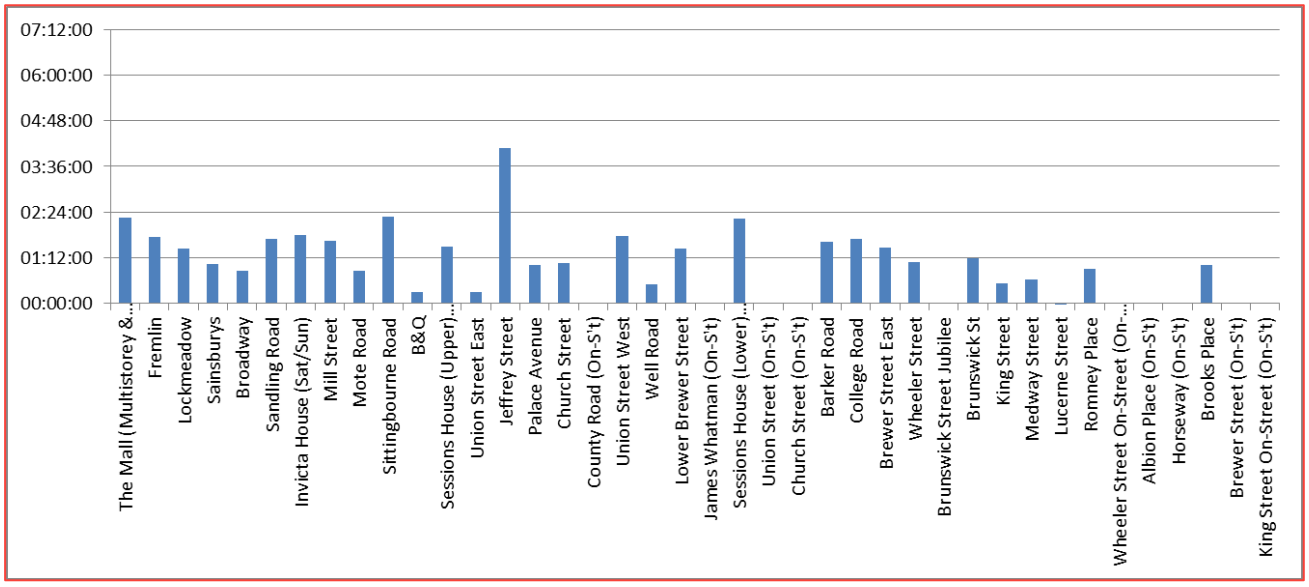


Figure 59 – Car Parking Duration of Stay, Saturday



4.15 FUTURE CAR PARKING DEMAND

4.15.1. It is difficult to forecast future car parking demand within a town centre environment within any accuracy and, especially with a potentially significant change in travel behaviour brought about by policy and technology, confidence in any forecast reduces the further forward a forecast seeks to look. The most sensible reference sources are past trends, government travel growth projections and shopping behaviour trends.

PAST TRENDS

4.15.2. Data presented in Section 4.10 shows a generally downward trend in car parking demand in the town centre. This is at the same time as the local population is changing as are travel habits, competition and the Town Centre itself.

TRAVEL GROWTH PROJECTIONS

4.15.3. Projections for Travel to Maidstone Town Centre (MSOA Maidstone 004) for an Average Day have been extracted from the National Trip End Model (NTEM) database TEMPro 72 for 2017, 27, 37 and 47. This is shown in Table 13. The table indicates a reducing scale of growth over each ten year block for both retail and commuting trips, but overall a growth of a percent or so per year.

Table 13 – Travel Growth to Maidstone Town Centre

	2017		2027		2037		2047	
	Retail	Commuting	Retail	Commuting	Retail	Commuting	Retail	Commuting
All	76017	25896	84554	26807	91532	27523	96297	28256
% Growth			111%	104%	108%	103%	105%	103%
Car	20543	13872	23457	14890	25849	15575	27773	16437
% Growth			114%	107%	110%	105%	107%	106%

SHOPPING BEHAVIOUR TRENDS

4.15.4. The 'Statistical bulletin, Retail sales Great Britain: October 2017' published by ONS notes a year on year reduction of total sales of 0.3% but an equivalent year on year growth in internet sales of 10.7% accounting for approximately 16.9% of all retail spending. The breakdown of this shift towards internet spending is shown in Figure 60 drawn from the ONS bulletin showing that a significant portion of the shift is from high street type uses such as department stores and clothing sales.

Figure 60 – Internet Sales Growth

Table 4: Summary of internet statistics: October 2017

Great Britain
Value seasonally adjusted, percentage rates

Category	Year-on-year growth	Sales as a proportion of all retailing	Index categories and their percentage weights
All retailing	10.7	16.9	100
All food	9.0	5.4	14.3
All non-food	10.3	12.5	35.0
Department stores	19.2	15.5	8.5
Textile, clothing and footwear stores	17.9	15.9	12.1
Household goods stores	2.7	10.8	6.3
Other stores	-3.2	8.4	8.1
Non-store retailing	11.3	79.9	50.7

Source: Monthly Business Survey – Retail Sales Inquiry, Office for National Statistics

4.15.5. Reviewing previous years' sales data from previous ONS bulletins in Table 14 shows a general trend of retail growth but a far greater shift in that growth towards the internet amounting to a net fall in non-internet shopping. This is at the same time as the national population is increasing.

Table 14 – Retail Sales Trends

	Total Retail Growth	Internet Retail Growth	Internet Sales Share of Total
Oct-17	-0.3%	10.7%	16.9%
Oct-16	7.4%	26.8%	15.2%
Oct-15	3.8%	11.2%	12.8%

CONCLUSION

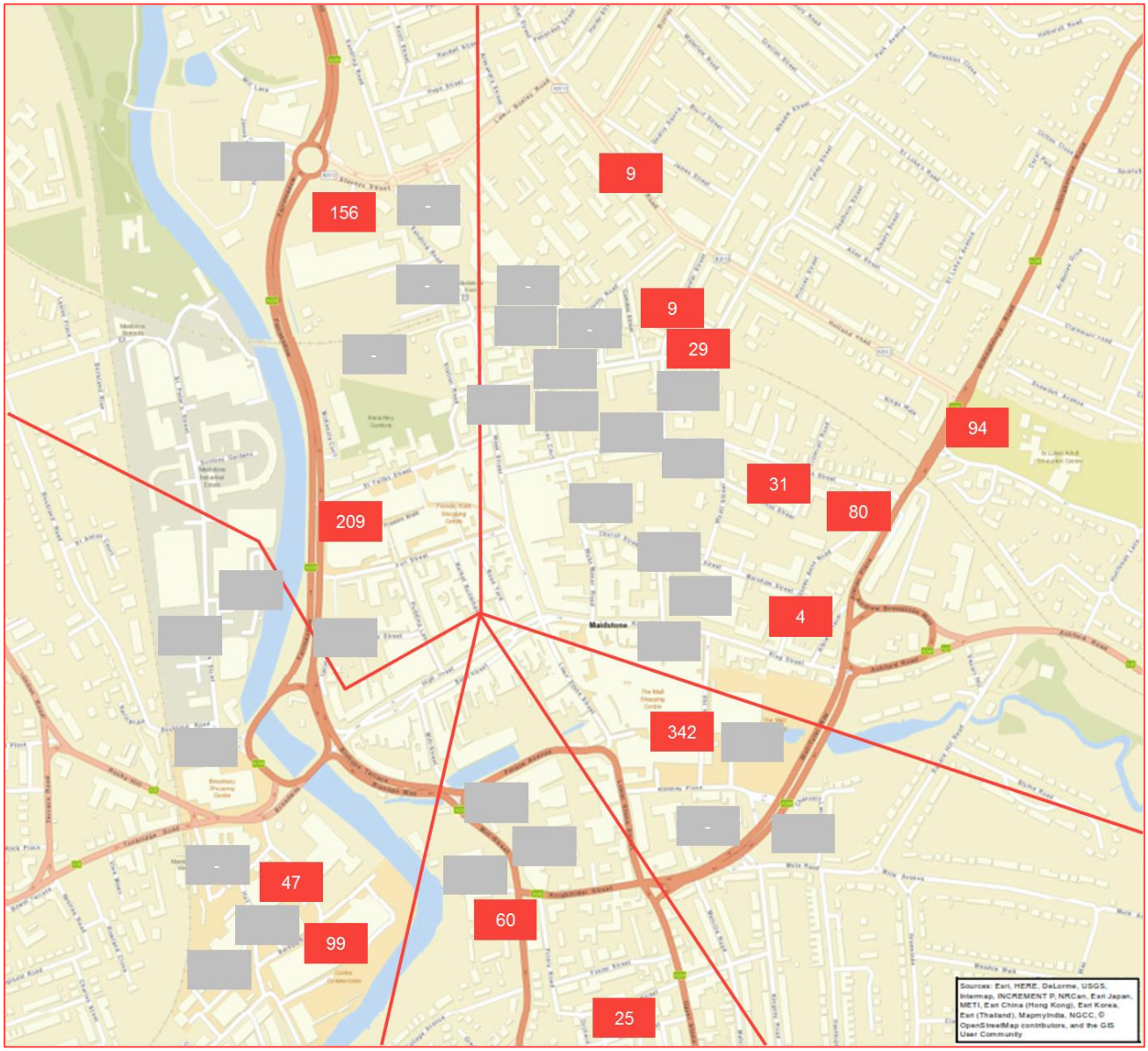
4.15.6. Overall, it is likely that car parking demand in the Town Centre will continue to decline in the absence of changes to the wider context (policy, charging, competition, regeneration etc) in the short to medium term. This is reflective of a broader change to shopper behaviour. Parking is most likely to be governed by regeneration and policy changes. A growth in parking demand without intervention is unlikely. An optimistic but sensible position may be for parking demand to hold steady with some intervention over the short to medium term.

4.15.7. The longer term is far more difficult to forecast with changing technology having the potential to dramatically change the way people travel in the longer term. The rate at which that technology advances and the rate at which society adopts it and the potential for changes in private car ownership cannot be forecast with any certainty. It is reasonably foreseeable that in the longer term car parking demand in the town centre may well dramatically reduce due to vehicle automation.

4.16 LONG STAY TARIFF INCREASES

4.16.1. With reference to the car parking surveys, the number of vehicles staying over 4hrs in each car park has been estimated and is presented in Figure 61. This shows a modest number of drivers staying over 4hrs with the majority parking in car parks outside of MBC direct control. This is a total of 1,195 cars of which some 693 are estimated to be staying over 6hrs.

Figure 61 – Long Stay Parking (>4hrs), Thursday



4.16.2. To understand the effect that a 50% increase in long stay parking tariffs may have on the attractiveness of parking in the town centre, reference has been made to 'TRACE, Hague et al, 1999' which presents the results of a comprehensive study into the elasticity of car parking charging and demand. This found, in Table 32 of that reported, that a 10% increase in car parking charges would result in the following changes in travel by car and other modes.

Table 15 - Car Parking Charging Elasticity

	Commuting	Retail & Leisure
Car Driver	-0.8%	-3.0%
Car Passenger	0.2%	0.4%
Public Transport	0.2%	0.4%
Foot & Cycle	0.2%	0.5%

TRACE, 1999, Table 32

4.16.3. On the assumption that anyone parking from 4-6 hours is parking for retail and leisure while anyone parking for more than 6hrs is parking for work, this gives rise to the following potential displacement to demand for travel by car to the Town Centre arising from a 50% increase in parking charges, shown in Table 16.

Table 16 – 50% Increase in Car Charging, Daily Car Trip Reduction, Thursday

	All Surveyed Car Parks	MBC Car Parks Only
Total Arrivals	13,974	4870
Arrivals staying 4-6hrs	502	206
Arrivals staying 6+hrs	693	409
50% Charge Increase Displacement	-103	-47

4.16.4. On the grounds that MBC only have direct control of their own stock, the increase in car parking charging is likely only to displace some 50 cars across a day, only a proportion of which would be travelling in the peak hour. This gives cause to consider the potential to further increase parking charges, which is presented in Table 17.

Table 17 –Alternative Increases in Car Charging, Daily Car Trip Reduction, Thursday

	All Surveyed Car Parks	MBC Car Parks Only
Total Arrivals	13,974	-
>4hrs, 100% Charge Increase Displacement	-	-95
>4hrs, 200% Charge Increase Displacement		-189
>4hrs, 300% Charge Increase Displacement		-284

4.16.5. Any potential congestion and air quality improvements from increasing car parking charging has to be balanced off against the potential economic effects of such a change. In this particular case there is also the question of where that displaced demand may go. Some may shift to sustainable modes. Others may shift to other towns. Some though may simply shift to other parking locations within the town centre undermining the potential benefits. This is essentially the nature of the Town Centre with a parking stock substantially under private control.

4.16.6. In practice, while there is clear potential to increase long stay car parking charges not only to the level defined through policy but also beyond, the benefit of this to peak hour congestion and air quality across the day is likely to be limited in the wider context. That is not though to say that it should be discounted, but the scale of the benefits must be understood.

4.17 CAR PARKING OPTIMISATION KEY FINDINGS

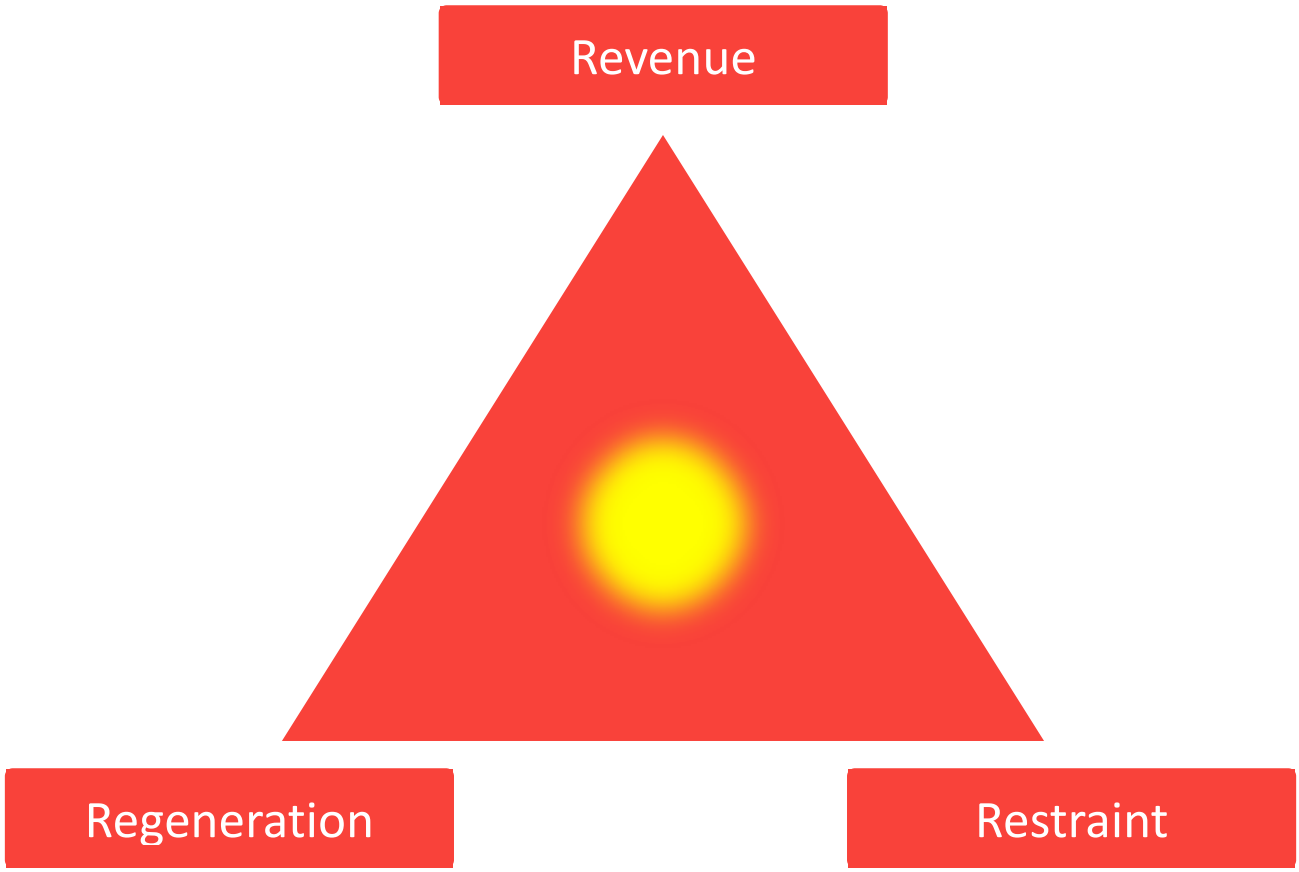
4.17.1. The data collected for the existing operation of the town centre allows several key conclusions to be drawn. These are:

- Overall, the town centre has more than enough parking for current demand
- The town centre is controlled with a sensible ringed approach to stay limits
- The North West and South West zones have ample supply and are underutilised
- The South and South East zones have an imbalance across car parks
- The North East zone suffers generally high parking stress
- Parking in the East is mostly small inefficient car parks
- There is overall more demand on Saturday, but more stress on Thursday

4.18 APPROACH TO PARKING STRATEGY

4.18.1. A parking strategy must balance three competing objectives, shown in Figure 62. The existing operation of the town centre is already balancing these three objectives and the primary question to consider here is whether or not the way in which they are balanced should be adjusted to address current or future operational or policy demands.

Figure 62 – Parking Strategy Balance



4.18.2. The three elements to be balanced are:

- Revenue – the need for car parking to be self-funding (construction, maintenance, operation, policing) and the opportunity for car parking to be a positive contributor to value of land holdings and in this case to add to the 'public purse' to fund council services
- Restraint – the need to manage congestion and air quality through limiting the availability to park at a 'trip-end' or discouraging car journeys through pricing tariffs
- Regeneration – the need for parking to positively contribute to the town centre economy as a key part of the customer journey and experience in a retail setting, attracting customers and therefore wider town centre revenue

4.18.3. There is no one size fits all solution and hence each town and shopping centre has a unique solution. For example:

- Some towns and cities apply a model heavily focussed on restraint and revenue with high car parking charges and a park & ride system accommodating car borne travel into the heart of the shopping district. Canterbury, Oxford and Cambridge are good examples of this model
- Others conversely have a very heavily regeneration focussed model with ample free or very low cost parking. Chatham and Bluewater are good examples of this model.

4.18.4. Maidstone currently sits in the more common mid position with a mid-level balance of all three objectives without a clear focus on one or other.

4.19 PROPOSED TOWN CENTRE OPTIMISATION OBJECTIVES

4.19.1. The primary issue found in the review of the existing town centre car parking stock is the imbalance in demand between car parks. The primary objective is therefore to **balance the demand for car parking across the town, aiming for no more than an 85% peak occupancy in neutral periods**. In particular, this may be achieved by:

- Changing stay limits and charging regimes
- Enabling dynamic demand monitoring and regime alterations
- Improving signage and advertising for underutilised parking
- Closing small over utilised parking areas to the general public, or re-purpose for local residents
- Providing additional parking where demand is high

4.20 REGIONAL TOWN CENTRE POSITIONING

4.20.1. It is helpful to understand Maidstone's relative position in the wider regional town centre economy context. The report 'Maidstone Town Centre Assessment, DTZ, August 2013' provides a summary of the ranking of Maidstone Town Centre in Figure 3.1 reproduced in Figure 63.

Figure 63 – Town Centre Venue Score Ranking

	2013 Venuescore Rank	2010 Venuescore Rank	2007 Venuescore Rank	Movement (2007-2013)
Maidstone	**52**	**51**	**33**	**-19**
Ashford	188	162	207	+19
Bluewater	21	32	28	+7
Bromley	36	37	29	-7
Canterbury	75	74	79	+4
Chatham	168	197	181	+13
Chelmsford	72	90	111	+39
Croydon	24	25	31	+7
Dartford	287	206	197	-90
Guildford	33	26	19	-14
Tunbridge Wells	51	54	55	+4

Figure 3.1 Source: Venuescore Ranking Index (2010 and 2013 datasets)

4.20.2. Figure 63 shows the relative strength of Maidstone in the regional Town Centre economy. Of the nearest geographical competitors Bluewater is the strongest competitor with Chatham, Ashford and Dartford offering the least attractive competition. Tunbridge Wells is arguably the most comparable Town Centre both in terms of its overall ranking and its geographical location outside of London.

4.21 COMPETITOR TARIFF STRUCTURE

4.21.1. Taking Tunbridge Wells as the most comparable Town Centre it is helpful to understand the current pricing structure of the car parks which serve the town centre.

Table 18 – Tunbridge Wells car park tariff

Car Park	Long or short stay	1 hour	2 hour	3 hour	4 hour	5 hour	6 hour	24 hours	Night Rate
Beech Street	Long Stay	£1.40	£2.30	£3.00	£3.80	£4.60		£5.30	
Camden Road	Long Stay	£1.40	£2.30	£3.00	£3.80	£4.60		£5.30	
Crescent Road	Long Stay	£1.60	£2.80	£3.80	£4.80	£5.60		£6.30	£1.50
Little Mount Sion	Long Stay	£1.60	£2.80	£3.80	£4.80	£5.60		£6.30	
Mount Pleasant Avenue	Long Stay	£1.60	£2.80	£3.80	£4.80	£5.60		£6.30	
Royal Victoria Place	Long Stay	£1.60	£2.80	£3.80	£4.80	£5.60		£6.30	£1.50
Town Hall Yard	Long Stay	£1.60	£2.80	£3.80	£4.80	£5.60		£6.30	£1.50
Union House	Long Stay	£1.40	£2.30	£3.00	£3.80	£4.60		£5.30	
Great Hall	Short Stay	£1.60	£2.80	£3.80	£4.80	£5.60	£6.30	£10.40	£1.50
Linden Park Road	Short Stay	£1.60	£2.80	£3.80	£4.80	£5.60	£6.30	£10.40	
Meadow Road	Short Stay	£1.60	£2.80	£3.80	£4.80	£5.60	£6.30	£10.40	£1.50
Royal Victoria Place	Short Stay	£1.60	£2.80	£3.80	£4.80	£5.60	£6.30	£10.40	£1.50
Torrington	Short Stay	£0.80	£1.40	£3.80	£4.70	£6.00		£10.40	£1.50

4.21.2. Through comparing Table 18 (TW tariffs) with and (MBC tariffs), the charging levels are broadly consistent in absolute terms but with some significant variation for some bandings in a proportional sense and between car park duration of stay limits.

4.21.3. Bluewater as strongest competitor offers free parking, as a purpose built out-of-town shopping centre.

4.21.4. Medway Council (Chatham) meanwhile as the closest competitor, although lower ranked, charges a comparable tariff for short stay but is below Maidstone in its Long Stay charging; see Table 19.

Table 19 - Chatham Car Park Tariffs

Time	Charge
0.5 hours	£0.50
1 hour	£1.00
2 hours	£1.50
4 hours	£2.50
6 hours	£3.50
6 hour +	£5.20

4.22 PROPOSED BASELINE MBC TARIFF STRUCTURE

4.22.1. It would be sensible to rebase the MBC parking tariff structure to reflect the charging tariffs of competitor parking stocks within Maidstone Town Centre and in competitor centres. Table 20 shows the proposed baseline tariff structure at 2017 prices.

Table 20 – Proposed MBC Tariff Structure

Ref.	Control	<0.5	<1	<1.5	<2	<3	<4	<5	<10	<12	>12hr
Short Stay	MBC		£1.50		£2.50		£4.00	x	x	x	x
Long Stay	MBC		£1.50		£2.50		£4.00				£6.50
On Street	MBC		£1.50	x	x	x	x	x	x	x	x

4.23 PARK & RIDE OPTION TESTING

4.23.1. The Park and Ride Study considers the option of closing of one or both of the current Park and Ride sides at London Road and Willington Street. This has implications for the town centre both in terms of car parking occupancy and car parking revenue.

4.23.2. Table 21 sets out an estimate of the potential revenue which could be generated by the closure of each Park & Ride site. To prepare a revenue estimate, an assumption has been made on the proportion of the journeys to the town centre which would transfer to MBC car parks following a closure of either site. MBC controls much of the spare and relatively low cost long stay car parking in the town centre and it is therefore sensible to assume that much of what does transfer would transfer to MBC car parks. Short stay journeys however would not so readily transfer to the MBC parking supply given that the majority of the short stay parking stock is controlled privately and that many of the short stay journeys are concessionary and may therefore divert to other towns if not able to park and travel for free. A relatively pessimistic view has therefore been taken on the transfer potential of short stay parking to MBC stock.

Table 21 - Parking Revenue Implications

	Willington Street	London Road
Annual Bus Passengers (total)	280,000	229,000
Annual Bus Passengers (each way	140,000	114,500
Car Occupancy before 0900	1.27	1.27
Car Occupancy after 1000	1.59	1.59
Estimated Average Car Occupancy	1.40	1.40
Estimated Annual Car Trips	100,000	81,786
Peak (Long Stay)	21%	21%
Off Peak Concessionary	54%	54%
Off Peak Other	25%	25%
Typical Long Stay Parking Charge	£6.00	£6.50
Typical Short Stay Parking Charge	£2.50	£2.50
Long Stay Transfer to MBC Car Parks	80%	80%
Short Stay Transfer to MBC Car Parks	20%	20%
Long Stay Parking Revenue Increase	£100,800.00	£89,310.31
Short Stay Revenue Increase	£39,500.00	£32,305.47
Total Revenue Increase	£140,300.00	£121,615.78

4.23.3. The implication of this potential revenue generation is considered further in section 5.8.

4.23.4. Table 22 sets out an estimate of the potential displaced car parking which could transfer to the town centre due to the closure of each Park & Ride site. The town centre has overall adequate capacity to accommodate the additional car demand which could arise from closure of each of both Park & Ride sites on a weekday. Weekend Park & Ride usage is much lower than on a weekday.

Table 22 – Weekday Parking Occupancy Implications

	Willington Street	London Road
Peak Cars Parked before 0900	148	114
Peak Cars Parked after 1000	248	210
Estimated Long Stay Max Accumulation	148	114
Estimated Short Stay Max Accumulation	100	96
10hrs+ Unused Town Centre Spaces	899	899
All Unused Town Centre Spaces	1471	1471

4.23.5. The weight of long stay parking demand from the closure of London Road would be likely to transfer to Lockmeadow and Barker Road which have adequate available capacity to accommodate that demand. This would largely intercept trips on the approach to the town centre although to access Lockmeadow and Barker Road from the west an approaching vehicle must circulate around the gyratory across the River Medway. Any Closure of Willington Street would increase stress on the more stressed side of the town centre with additional trips travelling into and through the town centre to find available parking across the available supply with no obvious single receptor for the demand.

4.23.6. By far the greater potential to generate ring fenced revenue through parking to support a continued Park & Ride service is through a more general, though modest, increase in parking tariffs across the MBC supply. MBC ticket sales data indicate a typical 20,000 tickets being sold per week across the MBC stock. An increase of £0.10 per ticket may generate additional revenue of some £100,000 per year. The proposed re-based tariff structure shown in Table 20 may generate an uplift in revenue of c.£300,000 per year as shown in Table 23 which is likely to be sufficient to cover the current P&R net funding support from MBC.

Table 23 – Estimated Parking Tariff Change Revenue Implications

	Town Centre
w/c 18/09/17 Cash Ticket Revenue	£37,768
w/c 18/09/17 Cash Ticket Sales	17,128
Average Revenue per Ticket	£2.21
Assumed Non-Cash Ticket %	c.10%
Assumed Non-Cash Tickets	c.1,700
Estimated Sandling Road Tickets	c.1,300
Total Weekly Ticket Sales	c.20,000
Equivalent Average Revenue per Ticket from New Tariff	c.£2.50
Estimated Additional Revenue per Week	c.£6,000
Estimated Additional Revenue per Annumn	c.£300,0000

4.24 REVIEW AND CONCLUSIONS

4.24.1. The overall town centre car parking supply is adequately sized to support a vibrant town centre economy. There are however points of stress which should be addressed to improve efficiency and the 'customer journey'.

4.24.2. In particular it would be beneficial to reduce the duration of stay limits and/or increase car parking charging in the busiest and smallest car parking areas. As this is a 'strategy' rather than a 'plan' it would not be appropriate to identify definite and specific actions for individual car parks at this stage, but a more detailed implementation plan should be prepared in due course seeking to pursue the following strategy following appropriate consultation:

- The stay limit for on-street car parking in the north-east area should be reduced from 2hrs to 1hr to better accommodate short stay pop-in journeys and reduce hunting behaviour in the north-east area (County Road [On-St], Church Street [On-St], Union Street [On-St], Brewer Street [On-St], King Street On-Street [On-St], Wheeler Street On-Street [On-St], Albion Place [On-St])
- Long stay car parking in the north-east area should be reduced to increase capacity for short stay parking by displacing a small number of long stay trips while accommodating a greater number of short stay journeys throughout the day (Union Street West, Union Street East, Sittingbourne Road)
- Smaller car parks (fewer than 50 spaces) should be critically reviewed and either closed, limited to residents and/or permit holders only, or have reduced stay limits (2hr rather than 4hr) and higher tariffs (c.50% above baseline) (Union Street West, Well Road, Lucerne Street, Brooks Place)

4.24.3. The MBC charging regime is of a suitable order and scale but there is an opportunity to 'reset' the charging to a new baseline to better reflect the charging regimes of private operators and other comparable town centres. This should be pursued and any additional revenue should be reinvested in measures to meet Integrated Transport Strategy objectives and transport related Local Plan policies such as Park & Ride or measures to improve air quality.

4.24.4. The charging infrastructure used in most MBC car parks is aging and does not reflect the modern technology or payment methods. It is not practical to introduce barrier controlled entry in the majority of cases and therefore a more pragmatic solution should be pursued allowing card payments and pay-on departure. A system similar to that already operating in Sandling Road car park would be appropriate across the MBC estate.

4.24.5. To effect a material change in the prevalence of long stay parking in the town centre, long stay charging increases should continue to increase above and beyond the 50% target set out in the Integrated Transport Strategy and at a faster pace. As a great deal of the long stay supply is outside of MBC control, Town Centre Parking operators should increase car parking charges in combination with MBC to avoid displacement within the Town Centre.

4.24.6. In particular, The Mall multi-storey car park is broken into two elements with the rooftop element accessed from King Street while the multi-storey element is accessed from Romney Place. The rooftop car park element frequently reaches and exceeds capacity while the multi-storey continues to operate well. This car park serves an important function for trips approaching from the north east and east and re-opening a connection between the two car parks should be investigated.

4.24.7. In the medium to long term, an idealised car parking strategy would see trips intercepted on their approach to the town centre at the edge. This works well on the Royal Engineers Road approach to the town centre with Sanding Road, Maidstone East and Fremlin Walk intercepting journeys offering great potential to intercept trips on this corridor.

4.24.8. The Tonbridge Road and London Road approaches are well served by Lockmeadow and the wider car parking west of the river Medway. This is though underutilised which may be partly associated with its location but may also be a result of the car park only being accessible from the east; traffic approaching from the west must cross the river and double back to access the Lockmeadow area. Options to open the right turn from Barker Road into Broadway should be investigated to increase the attractiveness of Lockmeadow and intercept trips before reaching the town centre.

4.24.9. The Sittingbourne Road and College Road approaches to the town centre do not currently offer any significant opportunities to intercept trips just beyond the edge of the town centre. There would be merit in investigating such opportunities in future and for car parking closer to the heart of the town centre, which would then be surplus, being redeveloped or restricted to very short stay limits.

4.24.10. Many journeys into the town centre are repeat journeys by local shoppers with set habits. Signage on the approach to the town centre should be reviewed to provide greater emphasis on the number of bays accessible on routes at major decision points/junctions. Perhaps a more important measure, in the context of the 'routine' driver behaviour, is a broader advertising campaign to encourage use of those car parks which are currently underutilised.

3

PARK & RIDE STUDY

5 PARK & RIDE STUDY

5.1 INTRODUCTION

5.1.1. There is an ongoing internal MBC review of the existing P&R provision, conducted in tandem with the procurement of a new bus service contract, which aims to evaluate the current operation and finance of existing services.

5.1.2. Consequently, this report will focus on analysing the data collected as part of the MBC internal review in order to understand:

- Existing operational issues (if not fully covered by MBC's internal review);
- The impact of the previous closure of the Sittingbourne Road P&R site;
- Existing demand for P&R services;
- Existing main traffic flows to Maidstone town centre.

5.1.3. Through the above findings, options to improve Park& Ride performance in the short-term will be developed.

5.1.4. Finally, this report will investigate opportunities to introduce Micro P&R and new P&R sites to address the strategic long-term requirements for main highway corridors.

CONTEXT

5.1.5. The Census data presented in Table 2 indicates that the majority of the working population (65%) reaches their working location by driving a car or by being a passenger, while 10% use public transport. The remainder either walk, cycle or work from home. P&R services present a sustainable alternative to a significant proportion of the Maidstone population, who currently use a private vehicle to reach their workplace.

5.1.6. Current planning documents anticipate that the Borough will experience significant residential and employment growth, and therefore the effects of further congestion in the future could affect travel to work mode choice.

5.1.7. P&R is one of the tools used by local authorities to manage road space and parking stock. Depending on the specific need of a particular location, different strategies can be implemented. These strategies generally aim to encourage commuters to park in the outskirts of the town, thus reducing the traffic and easing congestion on roads into town during peak hours.

5.1.8. Academic research indicates that P&R schemes should not be implemented in isolation but should go hand in hand with town centre car parking controls and a careful review of town centre parking availability and tariffs. This study had therefore been developed in tandem with the Town Centre Parking Strategy.

5.1.9. P&R schemes are generally justified based on three main factors: effective use of road space reducing further significant spending on infrastructure; environmental improvements such as reduction of pollution or accidents; and stimulation of economic activity by relieving congestion. The two latter benefits are often challenging to assess for a monetary value. Although some examples do exist of commercially viable P&R services, most UK schemes still tend to require ongoing financial support in order to bridge the gap between the cost of providing the site (including bus service operation) and the revenue from users, as the parking charge or bus fare is usually less than the non-P&R scheme equivalent.

5.1.10. Maidstone has historically supported the principle of P&R. The first site serving the town opened in 1989 with 3 others opening in subsequent years. All sites have operated with dedicated bus services, with the charge made for the bus service rather than the parking. The four sites are:-

- Willington Street, off the A20, 2 miles east of the centre, opened in 1989;
- Coombe Quarry, Armstrong Road, 1.5 miles south of centre, opened in 1990;
- London Road, off the A20 to the west of the centre, opened in 1991;
- Sitttingbourne Road, off Bearsted Road near to the A249, opened in 1998.

5.1.11. Operational and financial reviews carried out on the P&R sites over the years lead to the closure of two sites: Coombe Quarry and Sittingbourne Road in September 2007 and February 2016 respectively. The London Road and Willington Street sites remain open and both still provide direct and dedicated bus connection to Maidstone town centre. Therefore, this report will focus on understanding their performance.

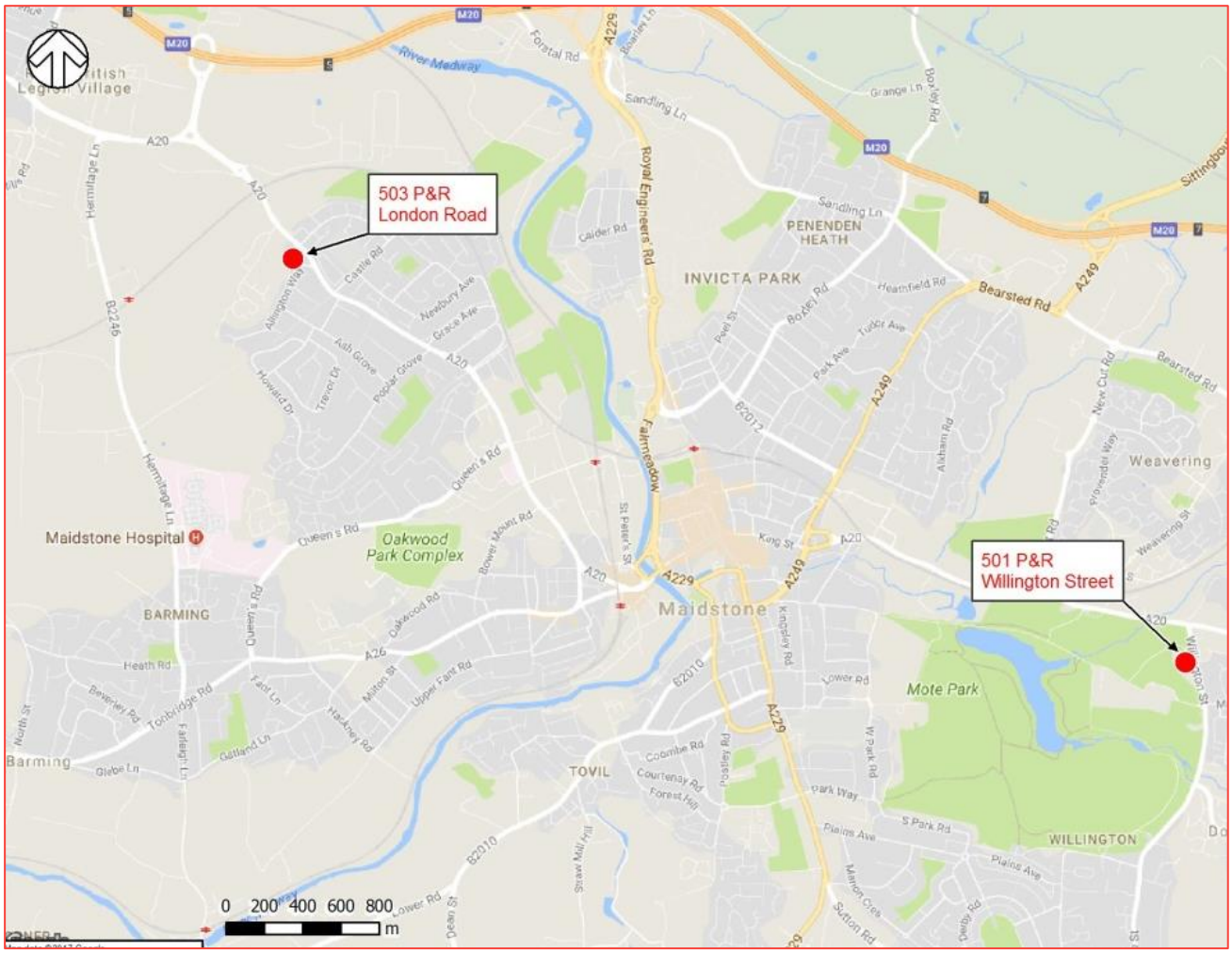
5.2 EXISTING CONDITIONS

5.2.1. This section reviews the existing P&R service. It also presents information related to the closure of the Sittingbourne Road site where available, and finally it investigates the main highway corridor to/from Maidstone town centre.

P&R DESCRIPTION

5.2.2. There are currently two P&R sites in Maidstone. The first site is located on Willington Street, to the east of Maidstone town centre, and caters for the traffic on the A20 which has come from the east, The second site is located on London Road, catering for traffic on the A20 coming from the west (and north) as illustrated in Figure 64.

Figure 64 – Maidstone P&R Site locations



5.2.3. The Willington Road car park provides 400 car parking spaces. Surveys undertaken by MBC in September 2017 recorded around 148 vehicles parked before 9:00 am and a maximum of 248 vehicles parked after 10:00 am on the busiest weekday (See Table 65). Thus, the utilisation of the P&R site is estimated to range between 37% in peak hours and 62% off peak.

5.2.4. The London Road site provides 518 car parking spaces. Surveys undertaken by MBC in September 2017 recorded around 114 vehicles parked before 9:00 and a maximum of 210 vehicles parked after 10:00 am on the busiest weekday (See Table 65). Thus the utilisation of the P&R site is estimated to range between 22% in peak hours and 40% off peak.

Table 65 – MBC P&R car survey results

Weekday			
	Willington P&R (max car)	London Road (max car)	Pax per car
Before 9 am	148	114	1.27
After 10 am	248	210	1.59

Source: MBC survey 22 to 28 September 2017 - weekdays only

5.2.5. Overall the utilisation figures indicate a significant amount of spare capacity in the P&R sites, particularly during peak hours and possibly results in the provision of a 20-minute frequency for the bus services (both peak and off-peak), which is less frequent than is normally seen for UK P&R schemes.

5.2.6. The survey analysis also revealed an overall car occupancy of 1.27 passengers per car before 9 am and 1.59 passengers per car after 10 am (Table 65).

5.2.7. A study carried out by JMP in 2011 revealed much lower usage on Saturdays and, combined with the data in Table 3, indicates that weekday commuters are the majority users of the P&R services at both sites.

5.2.8. Both P&R sites are open from 6.30am and close at 6.40pm and may only be used by P&R customers, although anecdotal reports have been received regarding users of the adjoining Mote Park using the site to park for free.

5.2.9. Each site offers a dedicated direct bus service to/from Maidstone town centre (routes 501 from Willington Street and 503 from London Road).

5.2.10. Bus priorities are provided along the following bus route alignments:

- Bus lane inbound on London Road between Hildenborough Crescent and Castle Road, between opposite Conway Road and the approach to Grace Avenue, and between Grace Avenue and Palmar Road;
- High Street/King Street is buses and taxis only between Wyke Manor Road (to the east of stop L1 shown in Figure 4) and the junction with Broadway/Bishops Way;
- Sections of bus lane before and after the junction of New Cut road and the A20, inbound and outbound.

5.2.11. Figure 66 illustrates the roads used by the bus services. Although these are shown as separate routes in Figure 4 (which dates from 2014, but is still the map available on MBC's website), the buses actually operate as one through service, with buses changing the displayed route number in the town centre.

Figure 66 – Map of route 501 and 503 bus services (source MBC website, 2017)

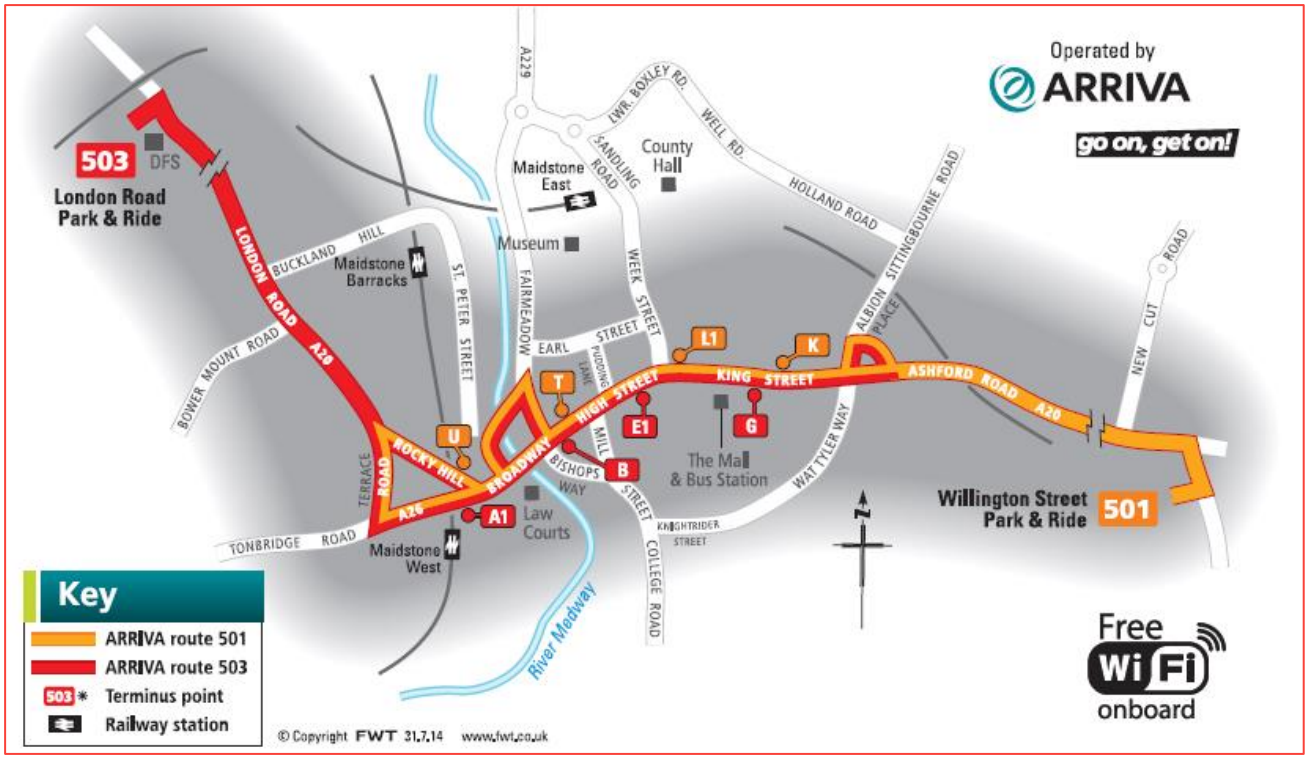


Table 24 - Characteristics of P&R sites

	London Road	Willington Street
Location	A20 (West)	A20 (East)
Car park spaces	518	400
Dedicated bus services route number	503	501
Frequency	every 20 min	every 20 min
AM peak scheduled run time in peak direction	9 min	6 min
PM peak scheduled run time in peak direction	12 min	6 min

FINANCIAL BACKGROUND

5.2.12. While the parking element of P&R is free, a fare has to be paid to use the bus service.

5.2.13. The fares presented in Table 25 are advertised on the MBC website as being available for P&R services. A corresponding unit price was estimated based on expected travel patterns.

Table 25 - P&R fares & estimated unit prices (Source: MBC website)

	Current Prices	Estimated unit price	Unit cost estimation assumptions
Peak Day Return (up to 9am inclusive Monday to Friday)	£2.60	£1.30	Return divided by 2
OffPeak Day Return	£1.60	£0.80	Return divided by 2
10 Single Trip Ticket (must be used within three months of buying)	£10.30	£1.03	Total divided by 10
12 Week Season Ticket	£103	£0.94	Based on 11 weeks travel, 5 days a week, 2 trips a day
Annual Season Ticket	£412	£0.86	Based on 48 weeks travel, 5 days a week, 2 trips a day
Children under five	Free	£0.00	-
Up to two children under 17 with a full paying adult during off peak hours and Saturdays	Free	£0.00	-
Other concessions (Elderly and disabled) during off peak hours and Saturdays	Free	£0.00	Although these passengers travel free, MBC receives reimbursement for these journeys from KCC under the English National Concessionary Travel Scheme-

5.2.14. MBC contracted Arriva Southern Counties to operate the P&R services, for a cost of £3,030,476 between 29th March 2014 and 31st May 2018. In preparation for the end of the contract, a new contract notice was published in summer 2017 which sought a P&R services supplier for a further 10 years. This procurement exercise is understood to be under evaluation, with a decision on contract award expected by January 2018.

5.2.15. Fare revenue is passed to MBC and any shortfall in the cost of the dedicated bus service is borne by MBC.

5.2.16. Table 26 shows an estimate of the overall annual cost of the P&R services at current prices, and current level of revenue. MBC is left with a shortfall of around £242,000 per year to cover the service, which represents 41% of the total cost of the service.

Table 26 - Estimated Annual P&R Service Cost & Revenue

	Cost (£ '000)	Source
Current cost	-£584,000	MBC
Estimated revenue incl rents	£342,000	MBC
Shortfall	-£242,000 (-41%)	

CURRENT DEMAND ANALYSIS

Datasets

5.2.17. Three different sources of data were utilised to conduct the analysis:

- Recent data obtained from the bus operator (Arriva) in the form of two datasets:
  - The first one contains the number of passengers per week for financial years 2015/16 and 2016/17 for both routes 501 and 503;
  - The second dataset contains the revenue collected per week for each route, by ticket type. Ticket type categories include “10 Trip”,”12 Week / 3 Month”, “Pass” (understood to include concessionary passes), “Return”, “Return – Peak” and “Single”.
- The results of a P&R car and passenger survey conducted in September 2017 by MBC;
- The results of the two P&R online surveys conducted by MBC. These were utilised to validate observations from the Arriva data and to derive knowledge from user and non-user respondents.

Annual Demand Analysis

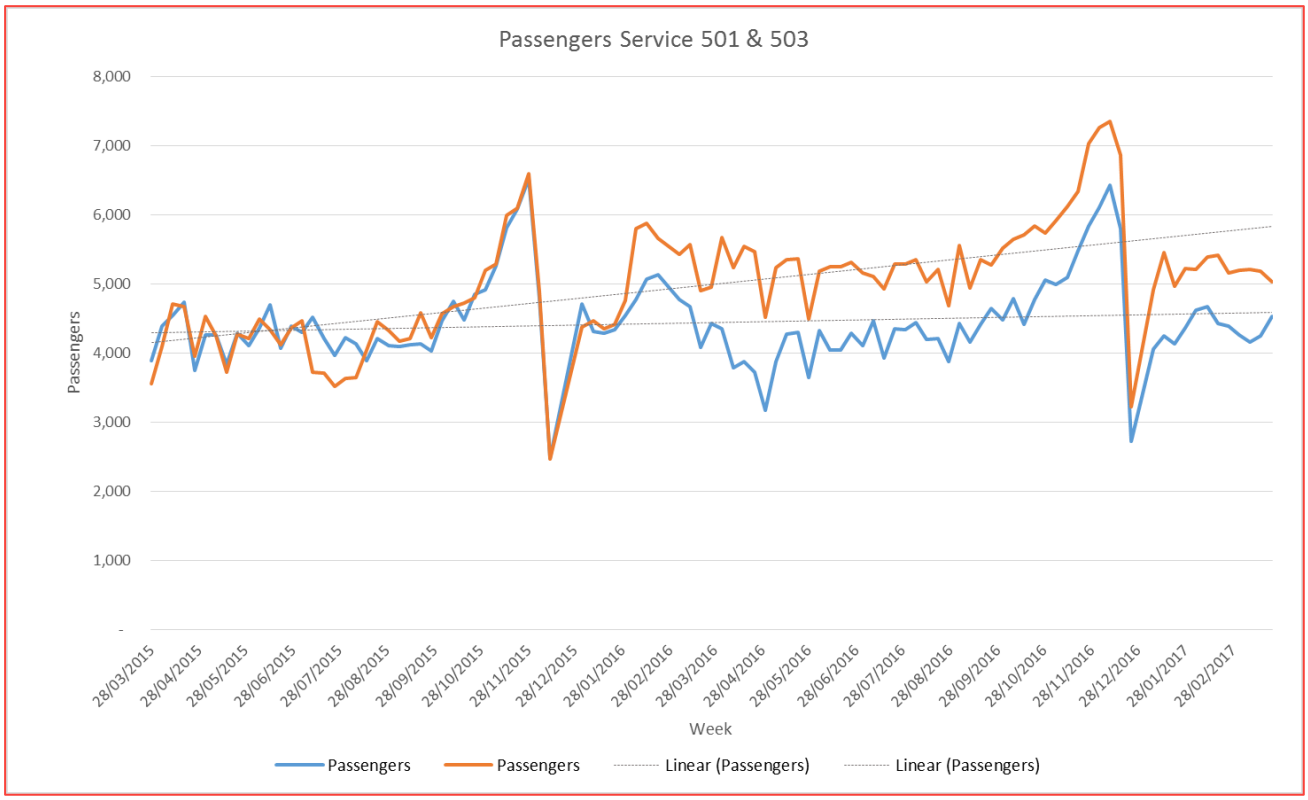
5.2.18. Arriva provided MBC with a weekly passenger count on both routes 501 and 503, as well as corresponding revenue for financial years 2015/2016 and 2016/2017. These were analysed and the results are presented in Figure 67, Figure 68 and Figure 69.

5.2.19. Overall in 2016/2017, the Willington Street site generated 280,000 passenger trips, while London Road generated 229,000.

5.2.20. The passenger counts (Figure 67) for route 503 demonstrate a minor increase in weekly passenger numbers during March 2015 and March 2017, with an average of 4,500 passengers per week (Figure 69).

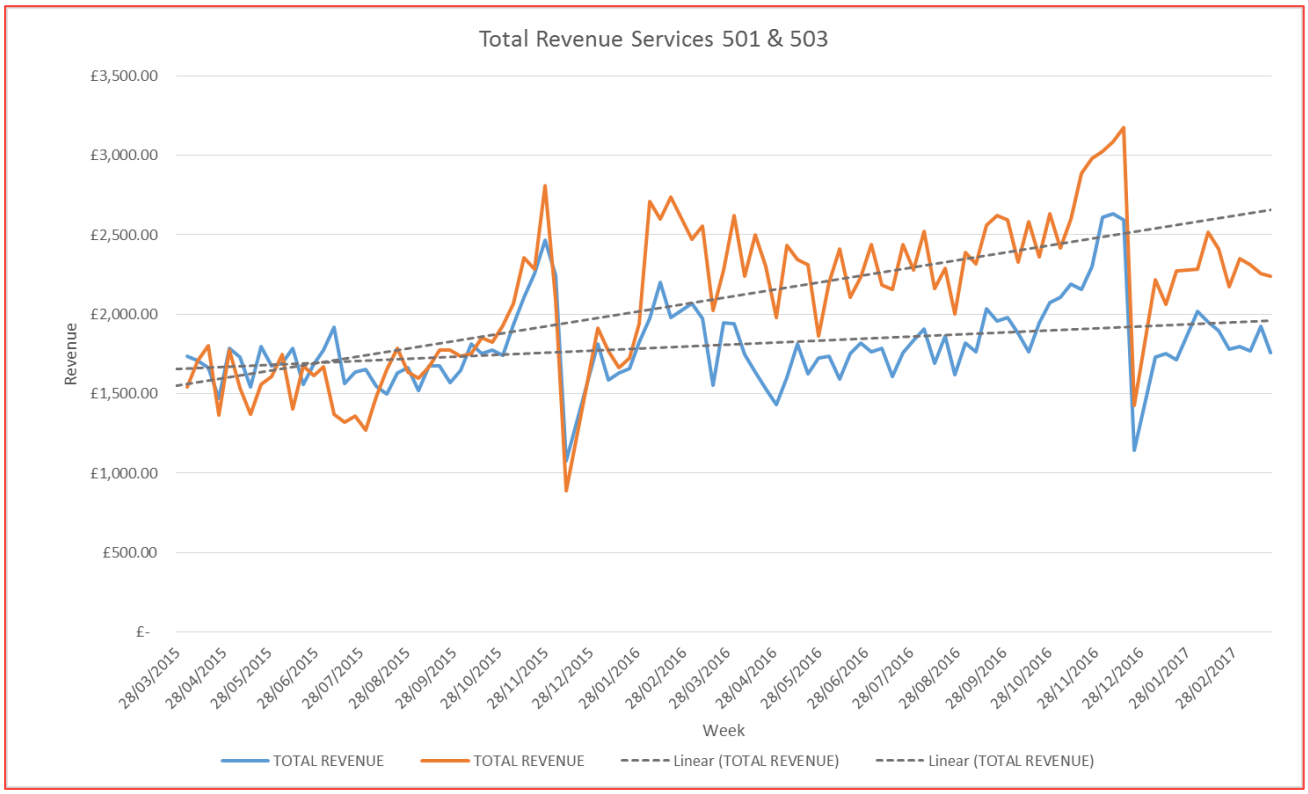
5.2.21. A significant increase is observed in weekly passenger numbers for route 501 (Figure 67), reaching an average of around 5,400 passengers per week. The increase occurs from February 2016 and is believed to be due to the closure of the Sittingbourne Road P&R site. A separate section in this report is dedicated to understanding the impact of the closure of the Sittingbourne Road P&R site.

Figure 67 – Weekly passenger trends on routes 501 and 503 for FY2015/16 and 2016/17



5.2.22. The revenue figures for both services amplify the increase observed in passenger numbers, as illustrated in Figure 68.

Figure 68 – Weekly revenue trends on routes 501 and 503 for FY 2015/16 and FY2016/17



5.2.23. Figure 69 illustrates the change in average weekly passenger numbers and revenue for route 501 for the financial years 2015/16 and 2016/17.

Figure 69 – Weekly average passengers and revenue on routes 501 and 503 for FY 2015/16 and FY2016/17

5.2.24. As demonstrated through Figure 67 and Figure 68, the P&R passenger data presents multiple variations in demand throughout the year. This includes low usage over Christmas and New Year and the summer months, and increased usage in the period approaching Christmas.

5.2.25. Figure 69 illustrates that the variation between low and high demand weeks can sometimes be significant. For example, the lowest week on route 503 shows fewer than 3,000 passengers a week, and just over £1,200 in revenue, while the busiest week reaches more than 6,000 passengers and over £2,500 in revenue. Similar phenomena are observed for route 501.

Daily usage

5.2.26. Car and P&R bus passenger surveys conducted by MBC between 22nd and 28th September 2017 have been used to understand utilisation throughout the day. Figure 70 and Figure 71 illustrate that the busiest trips departing from the P&R sites recorded over 60 passengers shortly after 9:30am, catering for early off-peak passengers for both London Road and Willington Street sites, thus indicating the potential risk of leaving passengers behind between 9:30am and 10:00am. Willington Street data also highlights busy bus trips around 8:30 am, with more than 50 passengers recorded on the departing journey at that time.

5.2.27. As expected, usage is building up in the morning and slowly decreasing in the evening. The last few bus trips into town are almost empty but are required for marketing and operational purposes.

5.2.28. Figure 72 illustrates the combined number of passengers on P&R services per hour and the corresponding cumulative estimated number of cars parked in the P&R sites. Overall, based on average occupancy, it is estimated that over 800 vehicles are using the P&R sites during a busy weekday. However, it is unlikely that this figure is representative of the maximum number of vehicles parked at any one time.

Figure 70 – Passengers per bus trip departing from London Road P&R site

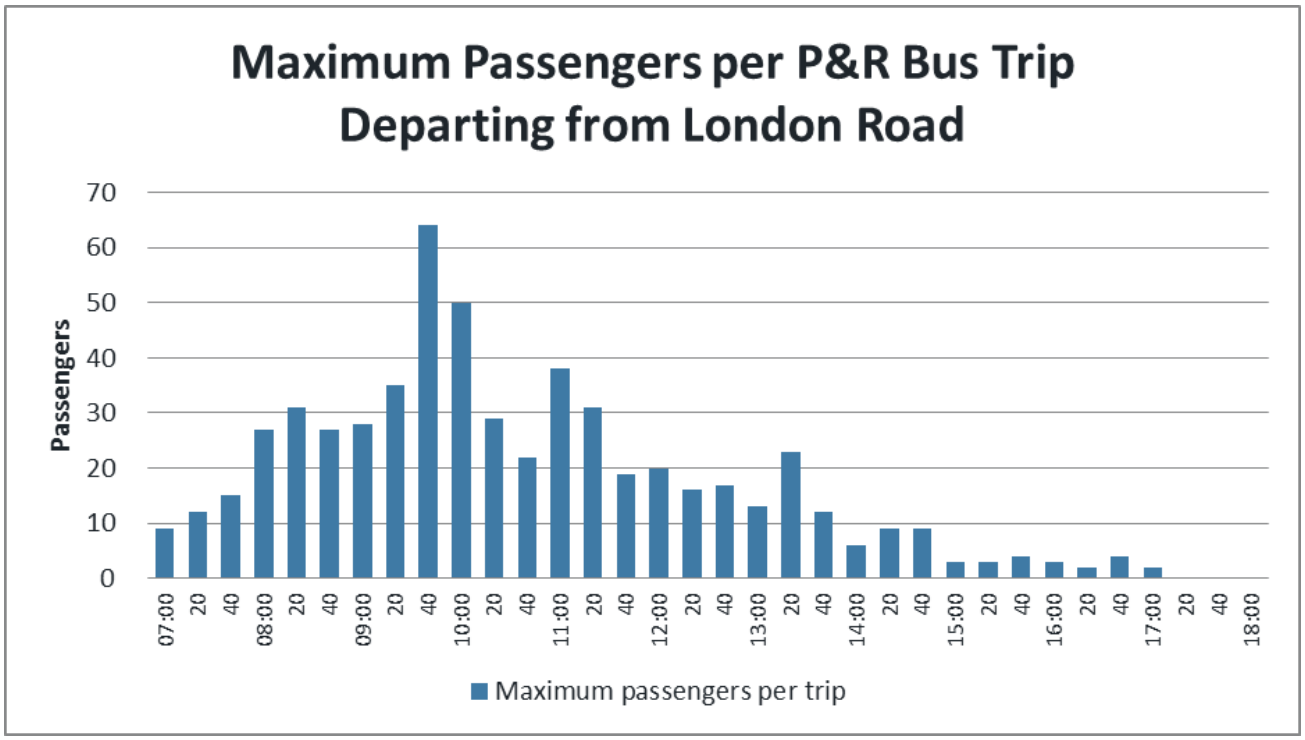


Figure 71 – Passengers per bus trip departing from Willington Street P&R site

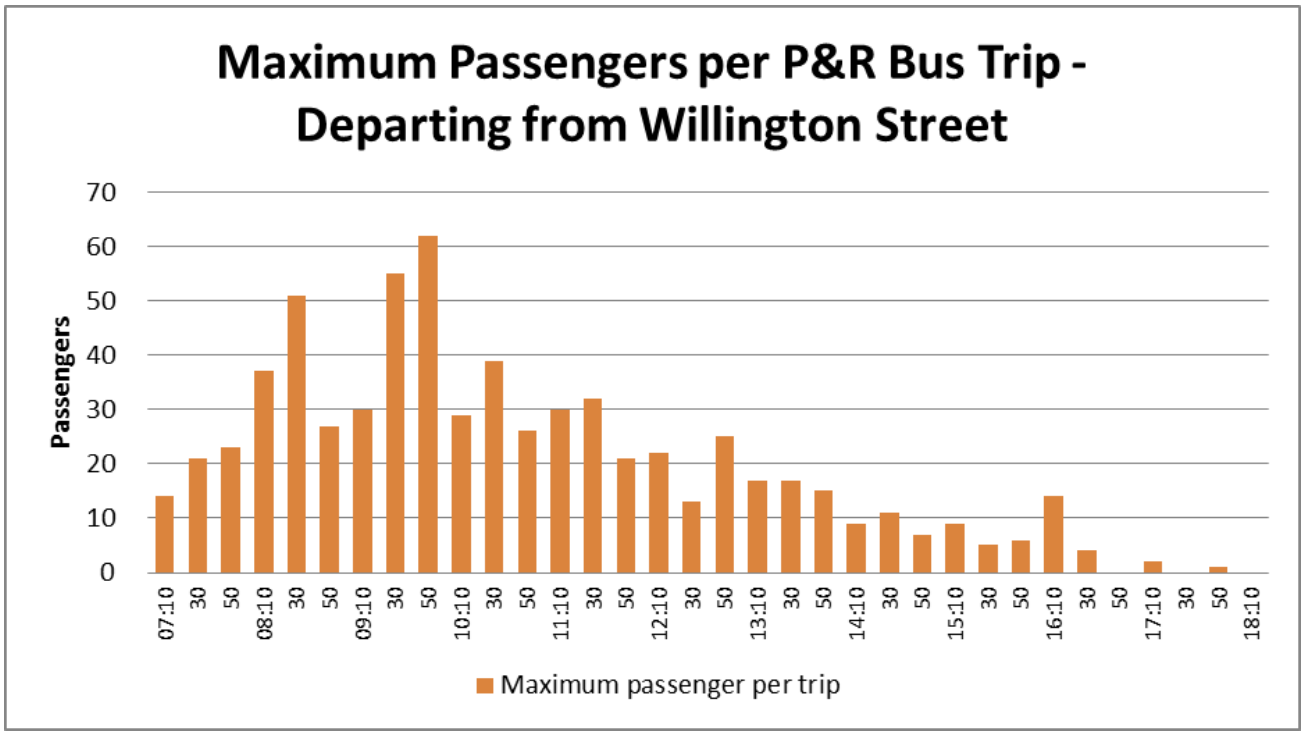
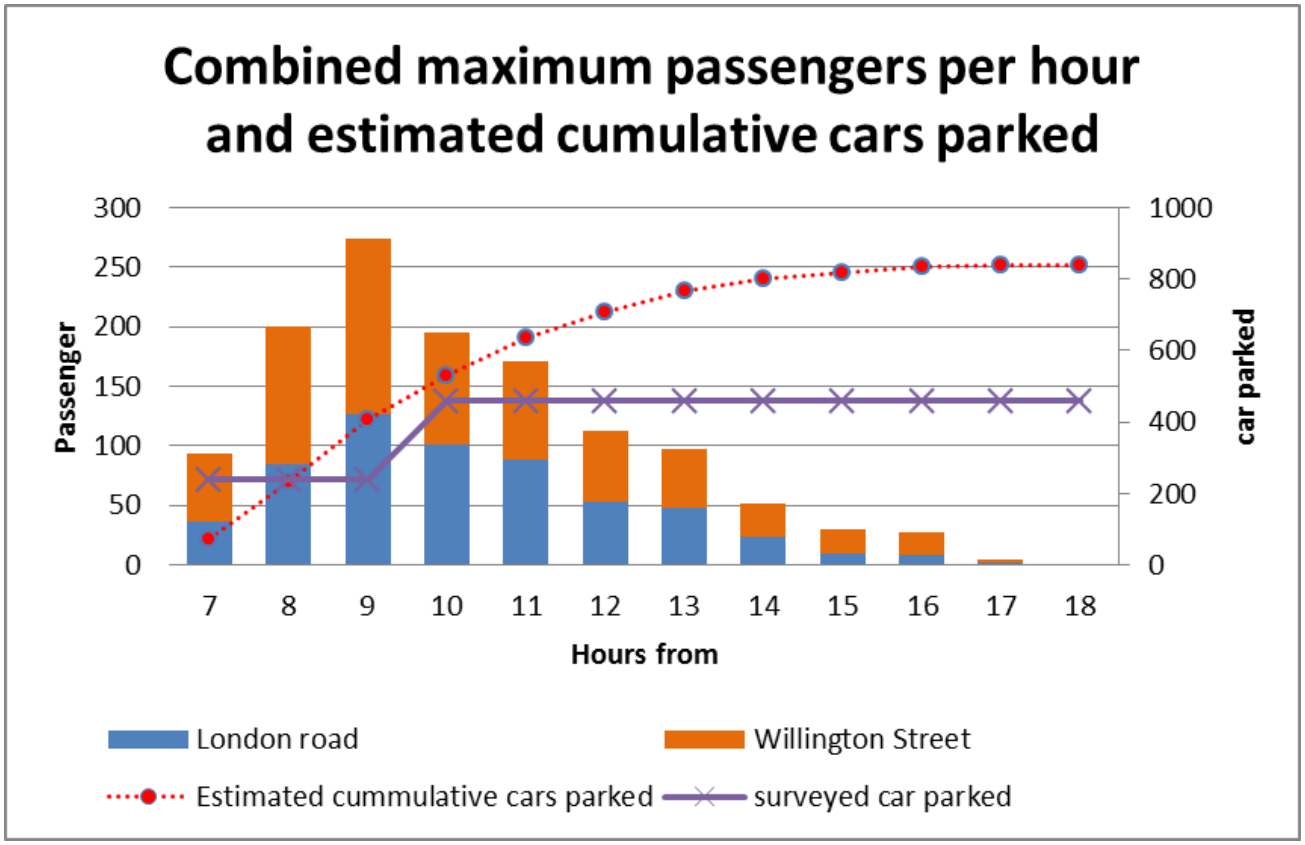


Figure 72 – Combined passenger per hour and estimated cumulative car parked

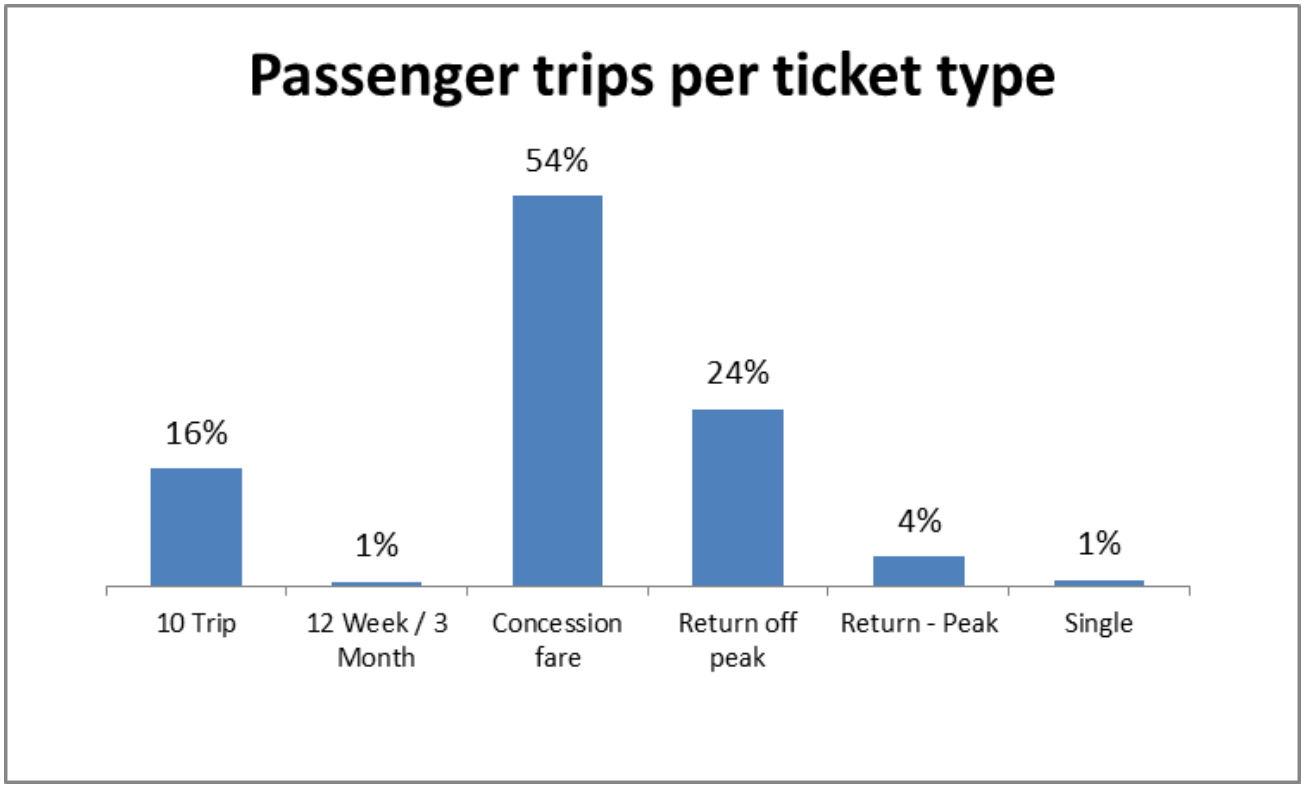


USER MARKET SHARE

5.2.29. Passenger numbers per ticket type were derived from revenue data provided by Arriva and the average unit fares presented in Table 25. A subset of the three first months of 2017 data was used to ensure the estimation represents the most recent data. The result is illustrated in Figure 73.

5.2.30. Figure 73 highlights that more than half of the P&R users benefit from a concessionary fare (i.e. ENCTS) and therefore travel in off-peak hours. It also highlights that "return off peak" fares are used by 24% of the passengers. Thus, only 22% of passengers potentially use the P&R site during the peak period. This figure is in line with results of the online survey and MBC P&R car counts.

Figure 73 – Estimated market share per tickets type (by passenger trips)



User/non-user surveys – key points

5.2.31. MBC ran an online survey in 2017 through their website. 1500 responses were received and some paper surveys of users were conducted. The sample is therefore mostly representative of the online respondents. Below are listed the main findings from both users and non-users.

5.2.32. User survey findings:

- 29% of users use P&R sites fairly regularly (e.g. 3 or more days per week);
- 20% of users travel to town in the morning peak period (before 9am);
- The users mostly travel to the P&R site alone or with one passenger;
- 85% of the users describe the service as good or better;
- 53% of the users would drive if P&R was not available, while 18% would not come to town;
- There is an impression that using P&R is “cheaper” than driving;
- Users are mostly (89%) satisfied by the service;
- The main reasons stated for using the P&R service are;
- Dislike of driving;
- Price of the service;
- Other Public transport options are not available from the journey start point.

5.2.33. Non-user findings

- Most of the non-users who completed the survey were aware of the availability of P&R services;
- 59% of non-users use their own car to reach the town centre;
- The reasons for driving into town were:
- poor alternative options using public transport; and
- difficulty to carry large bags in buses;
- 60% of non-users said they are unlikely to use P&R services in the future, while 14% may be encouraged if buses were more frequent;
- Suggestions to improve the service included;
- Charging by car rather than passenger;
- Increasing the parking cost in town;
- Expanding the service hours in the evenings and on Sundays;
- Introducing more sites such as the former Armstrong Road site or south of town;
- Negative perceptions about the service included;
- Congestion around the sites;
- Lack of bus lanes or cycle paths.

5.3 CLOSURE OF SITTINGBOURNE ROAD SITE

5.3.1. The Sittingbourne Road site was opened in 1998 and located to the northeast of the town centre in close proximity to Junction 7 of the M20. It contained 610 spaces and a dedicated bus service which allowed passengers to reach the town in approximately 6 minutes.

5.3.2. Surveys from the JMP parking study data report in 2011 recorded around 300 vehicles parked at 9:30 am on weekdays, with lower usage on Saturday and indicated weekday commuters were mostly using the P&R service. The maximum utilisation was recorded on Tuesday (local market day in Maidstone) at 12:30pm and showed 67% maximum occupation rate.

5.3.3. Overall, JMP surveys in 2011 demonstrated that a total of over 600 vehicles were parked in all P&R sites in the morning peak hour, thus reducing the traffic into town by a significant number of vehicles. Half of them used the Sittingbourne Road P&R site.

5.3.4. About 40% of the total Maidstone P&R capacity was utilised in peak hours while there was around a third of the overall town centre parking still available at the busiest time of the week.

5.3.5. Sittingbourne Road P&R was closed in February 2016 due to the lease on the site coming to an end and was not able to be replaced.

5.3.6. Figure 74 illustrates the change in patronage on route 501 before and after the Sittingbourne Road P&R site closure. Weekly passenger averages before and after the closure show an increase of 23% on route 501. This increase is observed immediately from the week starting the 6 February 2016, thus indicating that the increase is due to the closure of the Sittingbourne Road site, as no other event is known to have happened which would have caused such an increase in demand at Willington Street..

5.3.7. The same analysis on route 503, presented in Figure 75, shows an increase of 1% which is probably due to general growth rather than the Sittingbourne Road site closure, although the relative ease of access from the M20, compared to Willington Street may attract some users.

Figure 74 – Demand on service 501 before and after Sittingbourne Road P&R closure

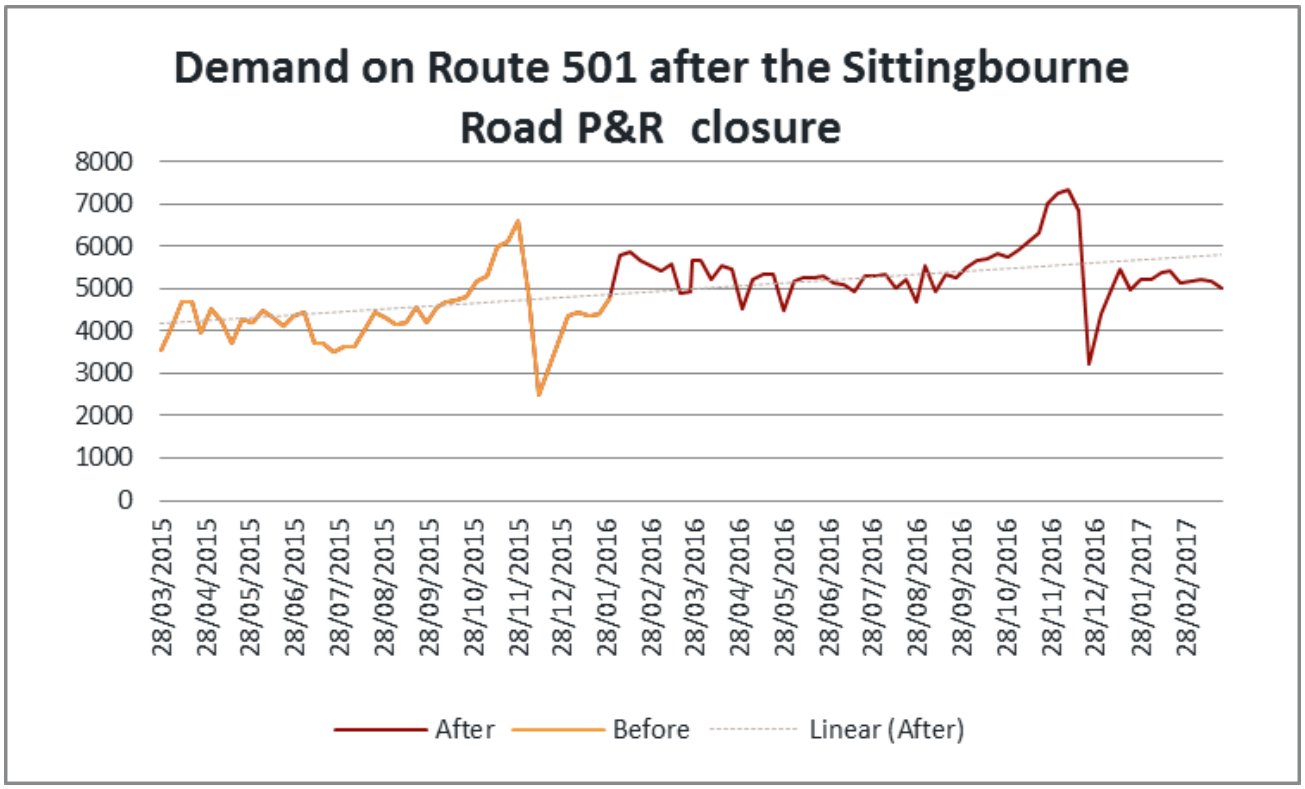
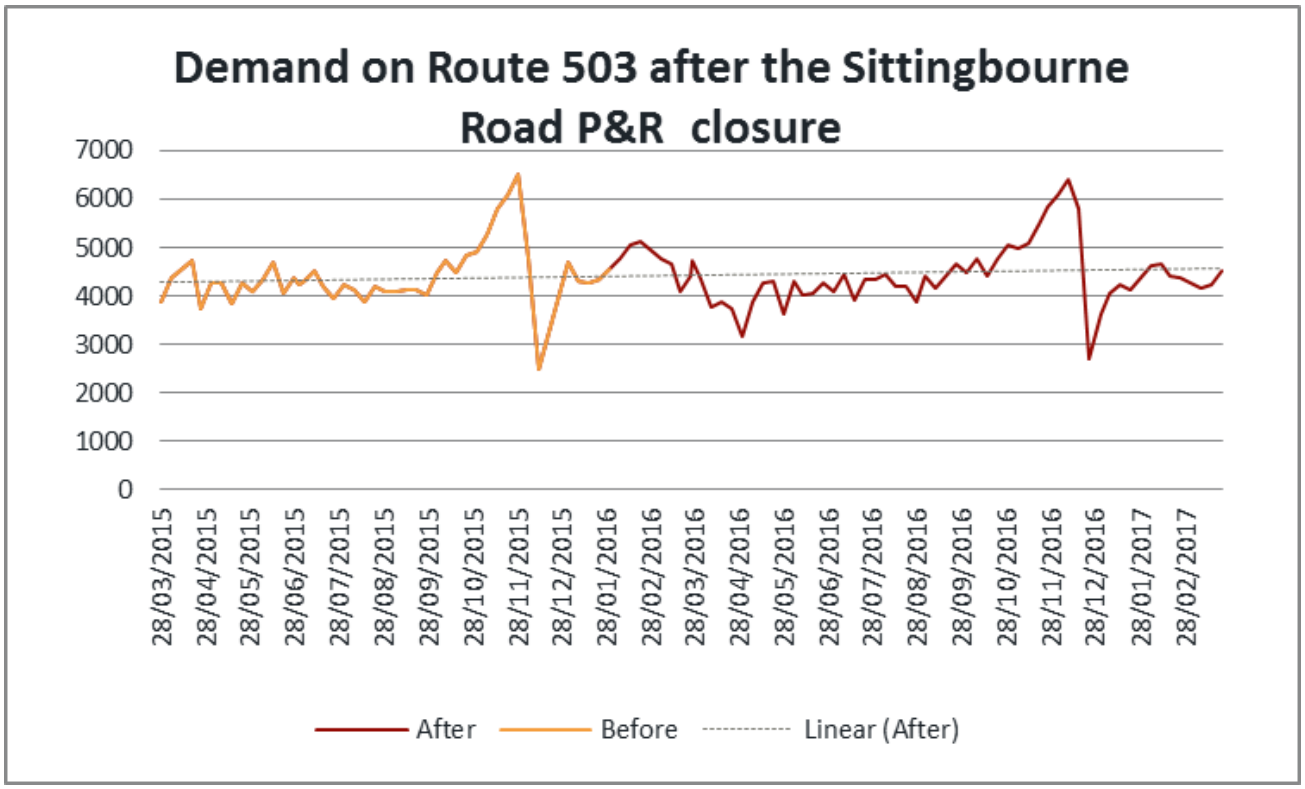


Figure 75 – Patronage on Route 503 before/after the Sittingbourne Road P&R site closure



5.3.8. Based on the patronage figures, it is reasonable to assume that the Sittingbourne Road P&R site closure lead to an increase in use of the Willington Street P&R Site, amounting to around 23% percent. Assuming the number of vehicles parked in Willington Street P&R in the morning peak is 148, it is projected that 28 of them have transferred from the Sittingbourne Road P&R, and would only represent around 10% of the previous demand.

5.3.9. Table 27 summarises the overall impact of closing Sittingbourne Road P&R Site:

Table 27 - Overall impact of the Sittingbourne Road P&R site closure

		London Road	Willington Street	Sittingbourne Road	Total
Before	P&R P&R spaces	518	400	610	1528
	Cars parked in peak	118	120	300	538
After	P&R P&R spaces	518	400	0	918
	Cars parked in peak	119	148	0	267
Difference	% Cars parked in Peak	101%	123%	-	50%
	Cars parked in peak	1	28	-300	-271

5.3.10. The overall impact of the closure of Sittingbourne Road P&R site was to reduce the number of P&R parking spaces by 610, leaving 918 spaces available, and to reduce the overall number of cars parked during the peak by 50%.

5.3.11. It is estimated that the closure lead to a reduction of 271 cars parked in the morning peak hours and a large proportion of these may now be parking in the town centre, while 28 users have transferred their vehicles to the Willington road site.

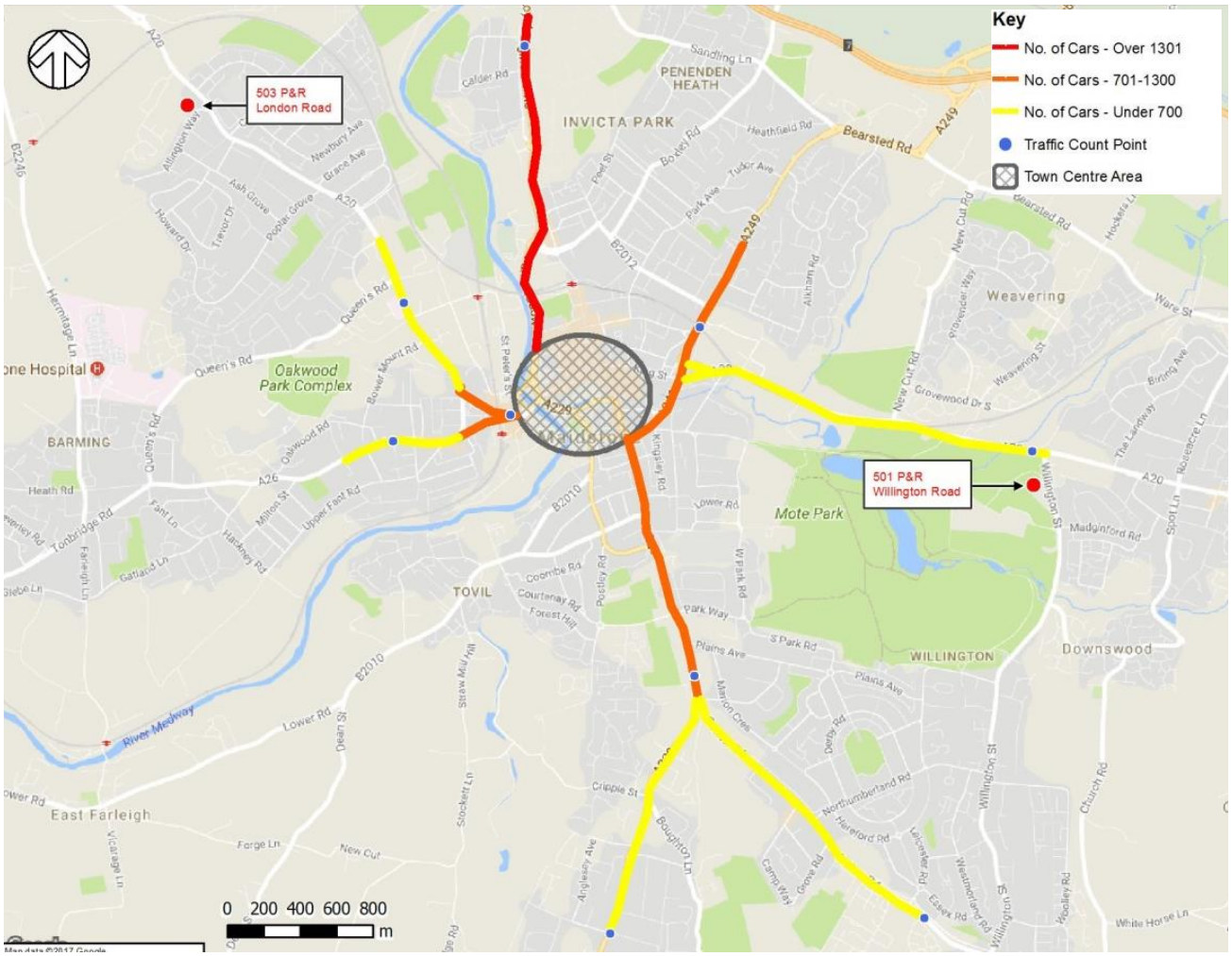
5.4 MAJOR TRAFFIC FLOWS

5.4.1. There are eight main radial routes that lead into Maidstone Town Centre. The A20 (east), A229 (north), A249, and A20 (west) provide access from Junctions 5, 6, 7, and 8 of the M20 to the north of the town. The A274, A229, and B2010 provide access from the south, whilst the A26 provides access from the west. All these routes gradually meet, at a series of key junctions, as they approach the town centre before joining the central one-way gyratory system around the town centre.

5.4.2. The Department for Transport traffic count database was interrogated to understand traffic flows into Maidstone town centre in peak hours. The most recent traffic counts were retrieved for each corridor in the direction of the town centre and are presented in Figure76.

5.4.3. The colour code demonstrates the relative importance of each corridor in terms of traffic volumes. The blue points illustrate the location of the "Count Points (CP)" where the surveys were taken, used to create the map. Some of the lines on the map illustrating the traffic volumes are extended past the CPs for legibility purposes.

Figure 76 – Main traffic flow corridors (Source DfT Traffic Counts)



5.4.4. Table 28 provides the specific values used to create the map and the dates of the surveys.

5.4.5. The A229 Southbound is shown to be the busiest road with over 1700 vehicles in the busiest time, followed by the A26/A20 junction (Tonbridge Road and London Road), and then the A229 Northbound and Sittingbourne Road. Some of these sites are not currently served by P&R services.

5.4.6. It would be worth investigating if there are opportunities for new P&R sites to cover these corridors in the longer-term.

Table 28 - Most recent traffic counts extracted from DfT Traffic Counts database

Count Point (CP)	Road	A_Junction	Name	Direction	Year	Cars (busiest peak hour)	P&R available
26818	A229	Sandling Road roundabout	A229 Southbound	S	2014	1757	No
74580	A20	A229 roundabout	A26/A20 (Tonbridge and London Rd)	E	2012	1113	Partially
46830	A229	A274	A229 Northbound (Loose and Sutton Road)	N	2011	985	No
16793	A249	A20 King Street	Sittingbourne Road	S	2008	859	No
26819	A229	Old Loose Hill	Loose Road*	N	2008	615	No
26291	A26	North St	Tonbridge Road**	E	2008	601	No
78251	A274	Bircholt Rd	Sutton road*	N	2008	601	No
16231	A20	St Laurence Avenue	London Road Southbound**	S	2012	546	Yes
78253	A20	A229	Ashford Road (Willington street)	W	2011	453	Yes

*Leads to 46830; ** Leads to 74580

5.5 MBC INTERNAL REVIEW FINDINGS

5.5.1. MBC internal review of Park and Ride aims to recommend options to improve Park and Ride services in the short and medium term. The review also includes the tender evaluation of the next Park and Ride bus contract.

5.5.2. The review is not yet finalised but early results have been shared by MBC at a member meeting on the 6th of November 2017.

5.5.3. The review is based on feedback from existing operation and multiples evidences collected by MBC in 2017 via online surveys, on road surveys and desktop analysis. It also includes financial modelling.

5.5.4. The findings from the online surveys related to fare and service suggested that:

- Users see frequencies and cheaper charges than town centre parking fare as the most important element for P&R success;
- Users will be willing to pay more for a more frequent service and expect to pay more for peak time travel;
- At least half of the users and a quarter of non-users would benefit from buses scheduled later in the evening;
- Changing the charging model is unlikely to increase significantly P&R usage;
- A low percentage of non-users are likely to shift to P&R if a group ticket was to be introduced; and
- A quarter of older users would stop using P&R if they had to pay to park, but about 70% of respondents thought that older users should be prepared to pay £1+.

5.5.5. The possible MBC recommendations to increase income and retain a similar amount of users are listed below:

- Continue pay to ride (concessionary fares still free);
- Harmonise peak and off-peak fare; and
- Introduce discounted group travel tickets.

5.5.6. Considering the tender returns, potential changes to charges and likely user behaviour derived from surveys; the early modelling results suggest that MBC could provide a comparable Park and Ride service within financial plans (includes MTFS £75K saving/additional income in 2019/20). This statement is likely to be confirmed after the completion of this Study.

5.6 SUMMARY OF BASELINE FINDINGS

5.6.1. Sections 2 and 3 reviewed in detail the existing policies, studies and current performance of existing P&R services. The main findings are summarised below, in no specific order of priority:

- Currently, it estimated that over 267 vehicles are using P&R services during the peak hours, thus reducing traffic into Maidstone Town centre during the peak.
- It is estimated that half of the total P&R capacity is not in use on a regular basis, and more than 70% of the capacity is available at peak hours.
- In addition to spare capacity at peak times at the P&R sites, there is a large portion of parking in Maidstone town centre which is under-used.
- Although MBC , through the ITS, aims to increase the P&R offer in principle, there is no planned schemes to do so as the implementation plan for Linton Corner has been cancelled.
- In common with most UK schemes, the current P&R services do not cover their costs, and as such require funding from the local tax payer. This statement is purely financial and does not consider benefits for externalities such as a reduction in congestion, pollution and road accidents.
- Across both sites, the majority of P&R users are concession pass holders and thus they travel during off peak hours, while around 20% of the users are using the service in morning peak.
- The closure of the Sittingbourne Road P&R service created a net reduction of over 271 P&R users during the peak hour. A significant proportion of these users may be now using their car to reach Maidstone town centre while approximately 28 drivers have however transferred to the Willington Street P&R site after the closure of the Sittingbourne Road P&R site.
- Non-user surveys indicate that current hours of operation (in the evening), bus frequencies, journey time and low priced parking in the town centre are deterrents to further use of P&R services.
- The traffic road (A229) with the largest peak hour flow of vehicles into Maidstone town centre is not served by a P&R service.
- MBC internal study is not yet finalised but is likely to make recommendations intended to increase income and reduce cost, while retaining at least a similar amount of users.

5.7 SHORT-TERM RECOMMENDATIONS

5.7.1. The outcome of the analysis clearly highlights some of the weaknesses of the current P&R services which could be resolved in the short-term. These include:

- Significant additional capacity available at both P&R sites in peak period;
- Only 20% of the users use the P&R service in morning peak hours; and
- Attractive competing parking offers exist in the town centre.

5.7.2. Ultimately, the main competitor to P&R is to drive and park in town. For the P&R option to become/remain competitive, MBC must ensure that the proposed service is quick, convenient, reliable, well publicised and competitively priced. Therefore, each of these aspects of the P&R service are reviewed to identify opportunities to:

- Reduce the generalised travel time;
- Improve convenience;
- Continue raising awareness;
- Review pricing strategies;
- Resolve town centre parking inadequacies; and
- Replace dedicated P&R bus services by existing urban bus services.

REDUCTION OF GENERALISED TRAVEL TIME

5.7.3. The generalised travel time of a P&R user is split into different elements:

- Car journey time;
- Parking time;
- Time waiting for the bus;
- Bus ride time;
- Time to reach final destination.

5.7.4. Each of these elements needs to be optimised to reduce the travel time to a minimum and render the service attractive to potential users. A high level review of individual factors is presented in Table 29.

Table 29 - Review of individual travel time element

	Duration	Comments
Car journey time	Depends on origin	Difficult to reduce as car journey at that stage are mixed with general traffic.
Parking time	1 min(nominal)	Optimised as current sites have spare capacity so easy to park.
Time waiting for the bus	0 to 20 min 10 min Average	This can have a significant impact on the overall travel time and most P&R schemes operate at every 15 minutes (or more frequently).
Bus boarding/ride time	9 min / 6min	This could be improved by further bus priorities, if feasible. However, since there are already fairly extensive bus priorities on the alignment (where road width permits separate lanes), it is unlikely to achieve significant savings in journey time on more constrained sections of highway.
Time to reach final destination	3 min (nominal)	Optimised with P&R services stopping at the main locations in the town centre, for example walk from say the High Street (The Cannon Stop T) to Fremlin Walk Shopping Centre

5.7.5. Reducing waiting times could significantly impact the overall travel time. This could be implemented via increased frequencies, e.g. increasing headways to 15 minutes (i.e. 4 services per hour) would reduce the waiting time by 2.5 minutes, from 10 to 7.5 minutes. Increasing the frequency to 10 minutes will reduce the waiting time by half, to 5 minutes.

5.7.6. A benchmarking exercise of P&R services in other towns and cities in the south east of England demonstrates that higher service frequencies are generally provided (Table 30), with a minimum service level of 15 minutes to 7.5 minutes.

Table 30 - P&R service comparison

	Maidstone	Canterbury	Winchester	Guildford
Frequency	Every 20 minutes from 7am to 6:30pm	Monday to Saturday: Buses run every 8 minutes, from 7am to 7:30pm - lower frequencies on Sunday	Every 7 to 10 minutes during peak times depending on sites - from 6:30am to 7:30pm	Every 12 to 15 minutes during peak times, Monday to Saturday, from 7.30am to 7.30pm depending on services
Parking access	open at 6.30am and locked at 6.40pm	No entry in car park after 8.30pm but exit any time		
Maximum length of stay		Maximum stay 48 hours		

IMPROVE CONVENIENCE:

Service Level

5.7.7. Parking in town is flexible, whereas the P&R service needs to be timed around the bus schedule, currently every 20 minutes. A more frequent service would allow users more flexibility and significantly reduce the end to end journey time into town, making the service more attractive as discussed in the previous section.

5.7.8. Hours of operation may also impact the number of potential users, whereas early closure would lead to a commuter running the risk of missing the last bus. This point was also raised through the MBC online surveys. The last bus trips leaving the main town centre stops are currently timed at 6:14pm (route 501) and 6:19pm (route 503), and may act as a deterrent for some people who may need to work late, attend a social event or work shifts. Solutions could involve by:

- Adding extra bus trips leaving the town centre toward the P&R sites; and
- Leaving the P&R site open at night so potential late commuters can still access their car, should they miss the last P&R bus (e.g. for London Road could catch a public bus or have a short taxi journey).

5.7.9. The benchmarking exercise presented in Table 30 demonstrates that the services are generally available until 7:30pm.

Additional Destinations

5.7.10. Suggestions were made by MBC to create additional bus stops on the P&R services targeting large trip generators such as large employment zones or interchanges, near the existing P&R bus service routeing. Three locations were identified: Turkey Mill, Maidstone Hospital and Kent County Council offices (County Hall).

5.7.11. Potential solutions were studied for the three locations and presented in **Table 31**:

Table 31: Potential new stops investigation

Suggested new stops	Description	Requirement in P&R services and Impact	Recommendations
Turkey Mill	Turkey Mill business park is located 1.5 miles South East of Maidstone town centre and is home to over 75 businesses accommodated in 100,000 sq ft of offices. There are over 700 car parking spaces and parts of the grounds are exclusively leased to The Orangery Maidstone Ltd, operators of a wedding and conference venue.	Stop on route at existing urban network stops - Stopping there may add maximum one minute to the existing P&R Bus Service and is feasible within existing resources.	Turkey Mill Business Park has large parking facilities (700 parking spaces), thus it is unlikely this parking is full on a daily basis, but it is possible that the parking is full when large events occur. Also this site probably generates some trips to the town centre across the day. It is recommended to add a new stop on the main road adjacent to Turkey Mill for the P&R service.
County Hall	County Hall (and associated office buildings) is located close to Maidstone East Railway Station, and is one of the largest employers in the Town Centre. It is also around 7 minutes' walk from the Town Centre P&R bus stops and car parking for visitors is very limited.	Serving County Hall would require a significant diversion for either of the existing P&R bus routes and based on existing bus running times is estimated to add around 15 minutes to the round trip journey time, thus requiring additional vehicle and driver resources.	This suggestion will increase the cost of P&R services and require additional resources. While this is not recommended if both P&R site remain open, it could be recommended as a Terminus should only one P&R site be in operation (subject to further investigation to ensure it could be accommodated within vehicle resource).
Maidstone Hospital	Maidstone Hospital is a large hospital located in Hermitage Lane. Parking is available on site but is often fully occupied.	The P&R services would need either a diversion or an extension of 7 minutes each way to serve the hospital site. This would require at least one extra vehicle in the cycle, and is likely to impact badly on punctuality, as it uses congested roads.	It is not recommended to serve the Hospital with P&R buses, however, it is recommended that MBC could discuss with the hospital the possibility to sublet some of the parking available at the London P&R site to the Hospital for overflow parking or staff parking. The hospital would then be responsible for providing its own transport between the car park site and the Hospital.

Mode of payment

5.7.12. Mode of payment: at the moment cash and mobile ticketing are accepted on buses, but not debit cards. This may be a deterrent for new users who may not necessarily carry cash with them and can also be an impediment to existing users. Accepting card payments on P&R buses would make the service more convenient for a large portion of users and may also create an opportunity to attract new users.

INCREASE AWARENESS

5.7.13. Continuous publicity and marketing: It is important to continuously remind users and new inhabitants of the availability of P&R services in order to encourage their use. Clearly, advertisements should emphasise the service strengths such as CCTV security, low cost parking for the whole day, multiple dropping points in town and continuous review of services.

5.7.14. The existing P&R sites are sign-posted from the nearest junctions on the M20 but MBC could develop a P&R app in order to engage better with existing and potential users.

5.7.15. Table 32 illustrates the pricing of P&R services in benchmarked towns and cities. It appears that the cost of using the P&R service is cheaper than average in Maidstone. It is also important to note that Maidstone is the only city where ENCTS passholders can use the service for free.

Table 32 - P&R tariff benchmark

	Maidstone	Canterbury	Winchester	Guildford
Pricing	Adult peak return £2.60, off-peak £1.60 Discounts on multiple regular ticket purchase	Tickets are £3 for a car and up to six people, or just £1 if you park after 4:00 pm	£3 all day - £2.50 off peak for one car up to 6 passengers Discounts on multiple regular ticket purchase	Pay to travel into Guildford on the bus - Adult day return £2.40- Discounts on multiple regular ticket purchase
ENCTS applicable	Free	Ride for free but have to pay for parking	May use the P&R bus free of charge after 9:30 am but should pay the appropriate parking fee.	£1 day return, all day

5.7.16. The current P&R pricing strategy focuses on charging per bus passenger, thus it is advantageous for cars with only one driver. In the case of multi car occupancy, it becomes more advantageous to use town centre parking which would cost the same as three peak passengers return P&R tickets.

5.7.17. With a current average number of passengers per car of 1.27 in the morning peak and 1.59 in the off-peak, it is estimated that each car parked results in a revenue of between £2.50 and £2.60. Therefore, paying to park rather than paying to ride with a fare of £3 may become more expensive for a significant number of people who use the service in the peak period.

Table 33 - Assessed current revenue per car

	Pax per car	Estimated current revenue per car	Comments
Before 9 am	1.27	£2.60	assumed £1.03 per trip (10 singles)
After 10 am	1.59	£2.50	assumed £0.80 per trip (10 singles)

5.7.18. As part of the internal review, MBC is currently undertaking a financial modelling exercise which also suggest that paying to park rather than paying to ride would not improve the revenue significantly, while potentially increasing the requirement for bus capacity.

5.7.19. Concessionary fare: Those using the English National Concessionary Travel Scheme (ENCTS) bus pass are estimated to represent over 50% of P&R users. For each trip made by a concessionary user, it is estimated that MBC receive £0.41, or £0.82 per return trip from KCC.

5.7.20. A suggestion from the survey has been made to charge those currently using the ENCTS scheme £1 per return trip, and this has been investigated. This would require the Park & Ride service to be outside the ENCTS and thus remove compensatory payments from KCC. Based on an assumption that there would be a reduction of 25% in the number of users due to increased overall cost (25% was estimated based on user surveys and experience), it appears that this would generate around £101,900. However there would be a reduction in revenue from KCC of approximately £111,700. It would lead to a net reduction of £10,000 as it would have to replace the concessionary reimbursement (Figure 24).

5.7.21. An alternative approach would be to charge ENCTS pass holders £1 to park their car. This approach could lead to an estimated reduction of 16% of the users. It would nevertheless raise around £57,600 of parking fare whilst retaining the ENCTS payments from KCC, generating an estimated extra £40,000 per year overall. However this would not be practical to enforce and would risk the charge of being discriminatory.

5.7.22. It is not recommended that any of these suggestions should be pursued.

Table 34 - Potential concessionary fare change

per annum	Current	ENCTS £1 per return trip*	ENCTS £1 per car parked**	Comments
Estimated ENCTS pax trips 2016/2017	271,817	203,863	229,078	*Estimated decrease of 25% of passenger trips for introducing £1 return fare for ENTC (based on results of MBC online surveys and experience)
Estimated number of car	85,477	64,108	72,037	**Estimated decrease of 16% of car demand based on corresponding average fare of 0.63 per passenger (£1/15.9=£0.63)
Estimated revenue from Kent	£111,715	-	£94,150	Based on 2016/17 statement
Estimated revenue from ENCTS bus fare	-	£101,931	-	
Estimated revenue from ENCTS car parking fare	-	-	£57,629	Car park fares are subject to VAT (20%)
Average fare collected per ENCTS users	£0.82	£1.00	£1.33	
Total revenue	£111,715	£101,931	£151,780	
Change in revenue	-	-£9,784	£40,064	
Change in revenue (%)	100%	91%	136%	

5.7.23. It should be noted that it is in theory possible to exclude P&R services from being covered by ENCTS, however this depends on the fare for the service including a special 'amenity' element which makes the fare significantly high in relation to the general level of fares for comparable journeys. As the current P&R fare is lower than comparable bus fares from the P&R sites into the Town Centre, this exemption would not be applicable. It also possible to exclude services from ENCTS if they are primarily aimed at tourism, however this definition would also not apply to P&R in Maidstone.

5.7.24. The P&R "off peak fare" is reasonably low and believed to be one of the lowest in the south east of England. The MBC internal study is considering the recommendation suggesting the harmonisation of Peak and off peak fares by increasing the off peak fares to the peak level. Based on the online survey results this should not impact significantly the number of off peak users since the tariff would remain competitive when compared with town centre parking.

REVIEW PARKING PRICING STRATEGY AND SPACE AVAILABLE

5.7.25. The main alternative to P&R is to drive and park in the town centre. One of the most targeted markets for P&R should be commuters who need long stay parking. For these especially, the current cost of parking in Maidstone town centre will be between £6 and £12, depending on the location.

5.7.26. The basic return P&R ticket currently costs £2.60 which is roughly a third of the parking cost. Therefore the price of P&R is reasonably attractive at face value. Furthermore, there are some additional discounts for regular P&R users.

5.7.27. Section 4.13 describes the current car parking occupancy profiles which demonstrates an oversupply of parking with peak accumulation amounting to some 68% of supply This excess of parking must be considered when progressing the P&R strategy.

5.7.28. Ideally, the parking strategy should also encourage commuters to park on the outskirts of town by reducing the number of parking spaces available for long stay parking. This could be done by implementing soft parking pricing changes:

- Reducing the maximum parking period to discourage long stays;
- Reducing the number of parking spaces available to commuters by increasing the number of resident parking spaces;
- Reviewing travel plans and the provision of parking with the main town centre employers; and
- Reducing the town centre parking space supply.

REPLACE DEDICATED P&R BUS SERVICES BY URBAN BUS SERVICES

5.7.29. Replacing existing dedicated P&R bus services with existing urban bus services has been reviewed, since both sites are located near a bus corridor.

5.7.30. The review confirmed the conclusions previously reach by MBC that:

- The services near Willington road are too few, not equally spaced and not close enough to provide an attractive service for P&R. Furthermore the service would probably require a small diversion since the site is approximately a 400 meter walk from the bus stops on the A20.
- While the services close to London Road are reasonably frequent, serving the P&R site would necessitate a small diversion of the current bus routeing, thus increasing travel time for existing passengers (See Table 36).

Table 35 - Bus services near Willington Street P&R site

Bus Routes	Peak Hour Frequency
9	30 mins
10X	60 mins

Table 36 - Bus services near London Road P&R site

Routes	Peak Hour Frequency
71	Combined 10 minutes
72	
79A	4 journeys

5.8 FUTURE P&R STRATEGY

5.8.1. Different strategies have been investigated in respect of the long-term requirement for P&R services:

- Introduction of micro P&R sites;
- Introduction of new P&R sites; and
- Closure of existing P&R sites.

MICRO P&R

5.8.2. The “Micro P&R” concept involves optimising the use of existing resources such as small parking sites and corresponding high frequency bus routes to provide small P&R sites. Where feasible this means that no dedicated bus services are provided but only marketing is required, thus significantly reducing operational costs of the P&R service.

5.8.3. A three step approach was undertaken to identify potential locations for Micro P&R sites:

- Comprehensive review of main traffic corridors and matching frequent bus services (every 20 minutes or more);
- Identification of potential existing parking areas along the frequent bus routes, via site visits; and
- Recommendation on feasibility of sites based on observation and operational requirements.

5.8.4. Table 37 summarises bus routes serving the main traffic corridors and the frequencies of each matching bus service. Bus routes with frequencies of 20 minutes or more (numbers 82, 85, 101, 71/72, 3, 7 and 89) are highlighted in bold.

Table 37: Traffic Corridor and Bus routes frequencies (source Arriva summary of services)

Corridors	Route	Peak headway
A274 Sutton road	82	10 min
	12	30 min
	13	6 jyns
	24	1 jyns
A229 Loose (S)	5	Hourly
	27	3 jnys
	28	-
	59	3 jnys
	89	20 min / Hourly
Shepway	85	10 min
	4	Hourly
A20 Willington Street (E)	9	30 min
	10x	Hourly
	501	20 min
A 249 Sittingbourne Road	333	Hourly
	334	Hourly
	335	Weekend only
	9	30 min
Boxley Road	130	8 jnys
	131	2 jnys
	79	30 min
	88	1-2 jnys
A229 Fairmeadow (N)	101	12 min
	150	Two Hourly
	155	Hourly
	X1	Hourly
A20 London road (W)	71	10 to 20 min
	72	30 min
	79A	4 jnys
	503	20 min
A26 Tonbridge Road	3	20 min
	66	Hourly
	7	20 min
	78	4 jyns
	88	1-2 jnys
B2010 Dean Street	23	Hourly
	25	Hourly

5.8.5. Each service routeing was then visited to identify potential parking locations suitable for Micro P&R sites. Suitable locations should provide:

- Safe and easy access to Bus stops in both directions;
- No change to existing bus routes (or only minor amendments); and
- Attractive journey times.

5.8.6. Site visits confirmed that there are no MBC car parks along the frequent bus routes. Therefore only commercial car parking has been identified. Potential implementation would be subject to, among other considerations, the limited number of spaces, any planning constraints and commercial terms with the site manager/owner. Table 38 summarises each route and the corresponding recommendations following the site visits and assessment of operational feasibility.

Table 38 - Routes and recommendation for Micro P&R

Service	Route	Daytime Frequency	Existing car parks on route	Comment	Recommendation
101 Sapphire	Maidstone - Springfield - Horsted - Huntsman's Corner - Chatham - Gillingham	12 minutes	No car parks directly on route (although Village Hotel is very close at J6)	101 operates direct via Chatham Road and does not serve the Running Horse stops therefore to do so would require a diversion which would work against the route's intended directness	Not feasible
82	Park Wood - Sutton Road - Maidstone	10 minutes	Morrisons (Nottingham Avenue)	Main road into town and some bus priority further along Sutton Road so has some merit	Possible
85	Senacre Wood - Shepway - Maidstone	10 minutes	Maidstone Leisure Centre	As West Park Road is not a key radial route into town, it would be a substantial diversion for any longer distance car trips and potentially generate (unnecessary) short distance car trips from Senacre Wood/Shepway	Not feasible
89	Maidstone - Loose - Coxheath -	20 minutes	None	Old Loose Hill is a small parallel road which may already accommodate some informal free parking but as it would be on-street, any promotion of this would probably be sensitive with residents	Not feasible
7	Maidstone - Wateringbury - Hadlow - Tonbridge - Southborough - Tunbridge Wells	20 minutes	None		N/A
71	Maidstone - London Road - Allington - Larkfield - Lunsford Park	10 – 20 minutes	(London Road P&R) Poppyfields Public House (Coldharbour Roundabout) Mid-Kent Shopping Centre (close by but would need a diversion which would be unattractive and require additional resource)	Services 71 and 72 provide a combined 10 minute frequency but this is already the P&R route so no justification for any micro P&R on same corridor. Additionally, the bus stops are not very close to the Poppyfields PH.	Not feasible
72	Maidstone - London Road - Allington - Larkfield - East Malling - West Malling - King's Hill	30 minutes			

5.8.7. Only one site is therefore considered as even feasible as a potential location for a micro P&R. This would involve the use of Morrison's supermarket car park at Nottingham Avenue/Sutton Road and the use of bus route 82, which runs every 10 minutes. No assessment has been made regarding the amount of surplus parking that might be available, nor whether Morrison's would be willing to permit such parking.

5.8.8. Further analysis highlighted that the estimated travel time by bus for this micro P&R journey would be around 20 minutes compared to a 10 minute car journey. In terms of fares, the £5.20 return fare will not be particularly attractive compared to the cheapest parking in town for the day, which costs around £6. Therefore, it has been concluded that both fares and travel times are too high to provide a reasonable alternative at this location.

5.8.9. Consequently, the option of Micro P&R sites in Maidstone does not appear to be feasible currently.

NEW P&R SITES

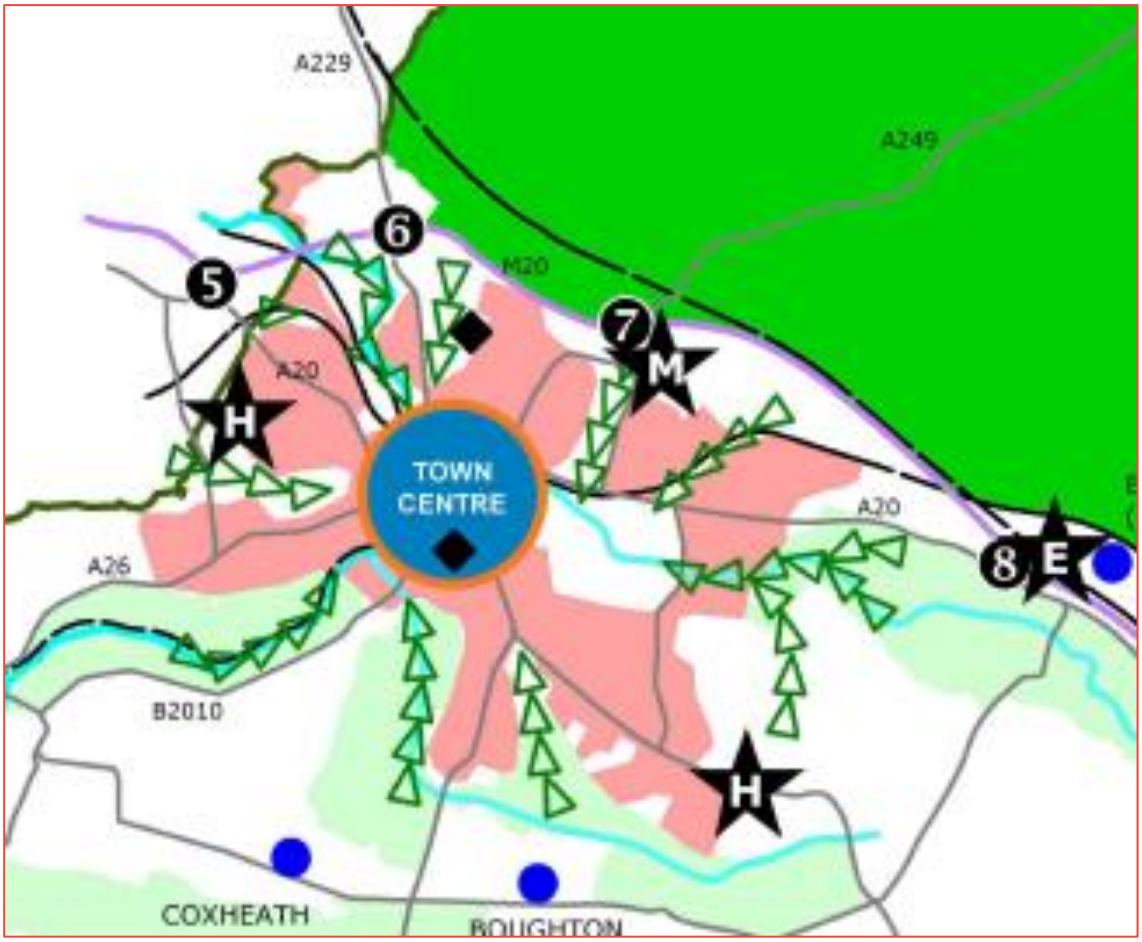
5.8.10. The Maidstone Borough Local Plan sets out growth plans between 2011-2031 to make provision through the granting of planning permissions and the allocation of sites for:

- 17,660 new dwellings;
- 39,830m2 floorspace for office use;
- 20,290m2 floorspace for industrial use;
- 49,911m2 floorspace for warehousing use;
- 100,000m2 floorspace for medical use;
- 6,100m2 floorspace for retail use (convenience goods); and
- 23,700m2 floorspace for retail use (comparison goods).

5.8.11. More specifically, the plans include 1,846 new dwellings, 11,400m2 of retail floorspace, 6,000m2 of employment floorspace as part of Maidstone urban area via SP1 to the north-west and the south-east.

5.8.12. This scale of development will further increase traffic flows and pressurise the existing transport network during peak periods. Delays are likely to impact all road users and could further impact the attractiveness of the town centre. The overall plans for Maidstone urban area are presented in Figure 77.

Figure 77 – Map of Maidstone development (SP1)



5.8.13. Based on the traffic flow analysis carried out in section 3, and considering that the Strategic Development Locations are on the edge of the current urban area, to the north-west (policy SP2) and the south-east (policy SP3), the following sites were identified as potential locations for further P&R sites:

Table 39 – Potential P&R Sites

	Potential new site	Feasibility
A229 Southbound	Invicta Park Barracks site - A229	Large site (41ha) located north of Maidstone at the crossing of the A229 and Sandling Lane. It is currently used as an Army Installation. The Ministry of Defence announced that the site would close in 2027. Redevelopment of this site is expected to be mixed-use and could accommodate facilities for P&R which could cater for the main traffic corridor in Maidstone A229 (Policy H2). This location already benefits from a roundabout which could facilitate access to the site.
Sittingbourne Road	Former Sittingbourne P&R site	It is not feasible to reinstitute the old Sittingbourne Road P&R Site because the site rent is too high and it is understood that the site is now planned for redevelopment.
Sutton Road	Parkwood / Sutton Road	The bus journey time for this location is around 30 minutes, while the car journey time is estimated around 15 minutes. Thus the P&R option would not be attractive. A P&R in this location is likely to attract similar numbers of users as London Road or Willington Street. Thus the business case is highly unlikely to stand on its own.
Loose Road	Former Armstrong Road site	This site was suggested as an alternative from the non-user survey suggestions. However the suggested site has now been redeveloped after the closure of the old P&R site.

5.8.14. Based on existing data, P&R performance and borough aspirations, any potential new P&R sites need to be financially sustainable to succeed.

5.8.15. Lessons learnt from both Willington Street and London Road P&R sites suggest that on average 26% of the busiest peak hour flow can be realistically targeted as potential users based on current P&R fares, which are relatively low.

5.8.16. A traffic volume of between 400 and 600 vehicles per hour in peak hours does not generate enough revenue to cover the operation of a 20 minute frequency P&R service. Thus a corridor with significantly higher traffic flows should be considered.

5.8.17. A high level estimation based on current usage and traffic flow indicates that peak capacity for a traffic volume like the one observed on the A229 would require a minimum of 460 spaces in peak hours and a maximum of 800 spaces all together, as set out in Table 40.

Table 40 - P&R capacity requirement

	Traffic volumes	pk occupancy	% off peak	% off peak design	% off peak design
Willington St	453	148	248	33%	55%
London Road	546	114	210	21%	38%
Total	999	262	458	26%	46%
A229 (N)	1757	461	806	26%	46%

5.8.18. Based on the above observations, it become apparent that an additional P&R site is likely to be required on the A229 corridor.

5.8.19. The existing site in Invicta Park is potentially worth considering, as the major highway infrastructure is already in place to provide access to the site, without requiring major capital expenditure.

5.8.20. The proximity to the town centre could be an advantage as the site could be expanded from a P&R site to a "Park and Choose" site and provide options for users to walk or cycle into town, or indeed use the high frequency existing bus service (101 Sapphire). It should however also be noted that the proximity to the town centre may limit the appeal of the site as car drivers would perceive that they are nearly in the town centre and thus not wish to transfer for the short remaining distance and thus further detailed modelling of the site would be required in order to develop a business case for it.

5.8.21. The implementation of a P&R service in Invicta Park would fulfil policy aspiration H2 to enhance walking, cycling and public transport connections to the town centre and the local area.

CLOSING EXISTING P&R SITES ANALYSIS

5.8.22. Some consideration has been given to closing one or both the existing P&R sites. Multiple scenarios have been defined and an outline assessment conducted of:

- Base Case: Do Nothing
- Sc1: Close London Road, keep Willington Street
- Sc2: Close Willington Street, keep London Road
- Sc3: Close both sites

Assumptions

5.8.23. It has been necessary to make some assumptions to estimate the potential impact of closing one or both of the existing P&R sites.

5.8.24. **Cost:** Existing cost of running both sites including the bus services is currently £584,000 per year. While a part of this cost is linked to the maintenance of the P&R parking provision, the total cost is mainly driven by the operational cost of the dedicated bus service. This cost has been estimated based on the Peak Vehicle Requirement (PVR) number to operate dedicated bus routes in all scenarios. PVRs have been calculated based on the existing running time in peak periods.

5.8.25. **Revenue:** The current revenue generated by both P&R sites is £342,000. While a small part of the revenue is derived from rental, the majority of it is generated by the fares paid on the bus. Based on the existing revenue generated, the split below has been assumed:

Table 41 – P&R Revenue Split

	Willington Street P&R	London Road P&R
Revenue breakdown	56%	44%

5.8.26. **User transfer:** The existing P&R sites are geographically opposed with London Road in the North West and Willington Street in the South East. Thus it is not expected that users will transfer from one site to the other should one or other of the sites be closed.

5.8.27. **Impact on traffic and air quality:** Petrol and diesel-engined motor vehicles emit a wide variety of pollutants, principally carbon monoxide (CO), oxides of nitrogen (NO_x), volatile organic compounds (VOCs) and particulate matter (PM_{10}), which have an increasing impact on urban air quality. The impact on air quality is assumed to be proportional to the expected change of traffic volumes on the roads surrounding the town centre.

Results

5.8.28. The Table 42 presents the results of the evaluations.

Table 42 – P&R site closure analysis

	Existing		Close Willington St	Close London Road	Close both
Estimates based on assumptions described above	London Road	Willington Street			
Car park spaces	518	400	518	400	-918
Cars parked in peak	114	148	114	148	-262
Maximum cars parked	210	248	210	248	-458
Cost (per annum)	£ 584,000		£ 389,000	£ 389,000	-£584,000
Revenue (per annum)	£ 342,000		£ 150,000	£ 191,000	-£ 342,000
Shortfall (per annum)	-£ 242,000		-£ 239,000	-£ 198,000	-
Additional Car Park Revenue from Town Centre Car Parks (per annum)	£ -		£ 140,000	£ 120,000	£ 260,000
Remaining shortfall	-£ 242,000		-£ 99,000	-£ 78,000	-
Buses Required	3		2	2	-
Service Frequency	3		4	4	-

5.8.29. **Scenario 1: Close Willington Street:** While the current shortfall in revenue over costs is c.£240,000 per year, the evaluation demonstrates that closure of Willington Street P&R would result in a marginal reduction in the shortfall (£3,000 per year). If combined with the potential extra parking revenue generated by the displacement of car parking to the town centre, the shortfall is reduced to c.£100,000 per year.

5.8.30. **Scenario 2: Close London Road:** While the current shortfall in revenue over costs is c.£240,000 per year, the evaluation demonstrates that closure of London Road P&R would result in a reduction in the shortfall by £44,000 per year, which is significantly higher than the figure for Willington Street but still a modest amout in context. If combined with the potential extra parking revenue generated by the displacement of car parking to the town centre, the shortfall is reduced to c.£80,000 per year.

5.8.31. **Scenario 3: close both P&R sites:** This scenario will result in a total saving of c.£240,000 to MBC. If combined with the potential extra revenue generated from a change in fare in town centre parking, the overall saving would reach £502,000 per year.

5.8.32. While the closure or one or the other of the P&R sites leads to some minor reduction in the financial shortfall of the P&R operation, closing the London Road site would be most beneficial financially and have the least detrimental effects to air quality and congestion.

5.8.33. Closing both sites may generate or otherwise release in the region of £500,000 per annum through a combination of parking revenue and saving of P&R subsidy.

5.8.34. This section has looked at the implications of maintaining or reducing P&R services in isolation. However, separate policy measures could also interact with P&R. In particular, as noted in section 4.23 a £0.10 increase in parking tariffs, ring-fenced to fund sustainable travel could find could generate £100,000 per year and the P&R shortfall could therefore be funded with an equivalent average £0.25 parking tariff uplift which is within the realms of what could be achieved simply by rebasing the current town centre car parking tariff as described in section 4.22.

5.9 REVIEW AND CONCLUSIONS

5.9.1. The analysis carried out during the P&R study has led to a number of recommendations which could improve the current P&R services. These are listed below:,

- Retain the dedicated bus services to existing P&R sites;
- Stop P&R service 501 at Turkey Mill bus stop in both direction;
- Extend hours of operation of dedicated P&R services within existing resources, if possible;
- Review opportunities to keep the P&R car park open later in the evening at no additional cost;
- Continue to advertise and market the P&R services to existing and new users;
- Review the pricing strategy to increase revenue by harmonising the off peak fares (subject to the MBC final modelling results confirmation); and
- Reduce town centre parking availability to encourage weekday commuters to park outside the town centre. Such measures could include increasing the number of resident permit zones or shortening the maximum parking period.

5.9.2. It has also led to a range of more strategic suggestions which should be considered alongside the above recommendations and the town centre parking pricing strategy.

- Micro P&R does not appear to be viable at the moment unless new sites can be identified;
- If one P&R site were to be closed, it would be preferable to close London Road. Retaining Willington Street P&R in combination to increasing parking fare in Maidstone town centre could significantly reduce the current subsidy required to operate P&R;
- The past performance of Sittingbourne P&R site demonstrated a greater demand than for both existing P&R,sites; thus a site near the former Sittingbourne P&R site location might be considered in the future;
- Introduction of a new P&R site directly north of Maidstone to cater for the A229 traffic would address the most heavily used corridor into the Town Centre. This could be envisaged in the Invicta Park site which is planned to be redeveloped within the Borough Local Plan time frame.

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