MOTT MACDONALD

Solihull Parking Study

Balsall Common, Dickens Heath and Knowle

October 2020

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Solihull Parking Study

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Executive summary

Mott MacDonald was commissioned by Solihull Metropolitan Borough Council (SMBC) in 2017 to undertake a car parking study for the areas of Balsall Common, Dickens Heath and Knowle. Mott MacDonald has since been commissioned by SMBC to update this report in line with the updated Draft Local Plan (DLP).

The objective of the study is to determine current parking supply and demand in each of the villages and to identify any impacts which both future DLP and non-DLP development will have on capacity. Recommendations are also made as to how to minimise any impacts found.

Whilst each of the study areas have been analysed and reported on individually, the methodology behind the analysis for each area is the same.

Three types of survey were undertaken in each of the study areas. These were:

- Car park occupancy
- On-street parking surveys, and
- Questionnaires

The car park and on-street surveys were carried out by Tracsis Plc, with weekday counts undertaken between Tuesday 31 October 2017 and Thursday 2 November 2017.

As part of updating the analysis in 2020, surveys were going to be undertaken on a Saturday and on a neutral weekday at any locations where tariffs had changed. However, due to Covid-19 these surveys were not able to take place.

Since the surveys were undertaken, many car parks in Knowle have had a change in tariff or parking control. Additionally, The Royal British Legion has implemented a charge since the surveys were undertaken. As new surveys have not been able to be undertaken, the 2017 data has been used for these car parks. However, the change in tariffs have been considered when analysing the results and when forming mitigation.

In order to determine future parking demand in each of the areas due to development growth, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro). This is for both with and without DLP development, which has been calculated by updating the household assumptions in TEMPro.

In Balsall Common, the area that sees the highest DLP impact is by Berkswell Station, which is forecast to be over absolute capacity in 2036 with DLP growth. Balsall Common Village Centre is also forecast to have increased demand, with the public parking being almost at absolute capacity in 2036 with DLP development. However, in the village centre the majority of the growth is background growth with the DLP having a smaller additional impact.

In Dickens Heath, the DLP is forecast to have the biggest impact on Whitlocks End Rail Station car park, which is already close to absolute capacity and is forecast to experience demand around 120% of the capacity in 2036 with DLP development. In Dickens Heath village centre, there is also forecast to be growth, with the mixed-use parking reaching almost absolute capacity at 11:00 in 2036 with DLP growth. However, it is forecast to be below 85% for the rest of the day, while there is spare capacity at this time on nearby residential streets and the growth is primarily caused by background growth.

In Knowle, public parking near the High Street is forecast to be close to absolute capacity in 2036 with DLP development, with its peak at 11:00. However, the majority of the growth is caused by background growth rather than the DLP. It is noted that a large number of tariffs have increased in Knowle since the surveys were undertaken, which may have reduced demand.

A summary of the mitigation developed to address the impacts which are likely to occur due to background traffic grow or directly from the implementation of the DLP is noted in Table 1.1 and the associated costs for each of the three study areas are also shown in the following table. These costs are only indicative and provide a high-level proxy at this stage. Cost estimates exclude items such as issuing and management of permits, utility works, diversions and maintenance. Any land costs are also excluded.

Table 1.1: Mitigation Summary

Study location	Mitigation	Primary reason for mitigation	Estimated cost
Balsall Common	Extension to Berkswell station parking (c.134 new spaces)	Local Plan development	£970,000
Balsall Common	Option 1 (with bypass) – new on-street parking on the A452 close to Station Road in line with A452 public realm improvements (to be confirmed)	Mainly background growth, but with some Local Plan development impact	£45,000
Balsall Common	Option 2 (without bypass) – parking controls on the library car park to prioritise demand and monitoring of nearby residential parking	Mainly background growth, but with some Local Plan development impact	£62,000 (pay & display)
Knowle	Potential changes to existing tariffs in public car parks to manage demand and monitoring of impacts on nearby residential parking	Mainly background growth, but with some Local Plan development impact	£37,000
Knowle	Potential for smart signage to show availability of spaces and where alternative parking is available	Mainly background growth, but with some Local Plan development impact	£380,000
Dickens Heath	New station parking at Whitlocks End (c.136 spaces), either through an extension to the current car park or by adding a deck	Local Plan development	£980,000 (staying one level)
Dickens Heath	Potential introduction to tariffs in public car parks to manage demand and monitoring of impacts on nearby residential parking	Mainly background growth, but with some Local Plan development impact	£115,000

1 Introduction

1.1 Study background

Mott MacDonald was commissioned by Solihull Metropolitan Borough Council (SMBC) in 2017 to undertake a car parking study for the areas of Balsall Common, Dickens Heath and Knowle. Mott MacDonald has since been commissioned by SMBC to update this report in line with the updated Draft Local Plan (DLP).

The objective of the study is to determine current parking supply and demand in each of the villages and to identify any impacts which future DLP and non-DLP development will have on capacity. Recommendations are also made as to how to minimise any impacts found. The study investigates car parking requirements for planning years 2026 and 2036, anticipating the expected effects of future housing developments in the study areas.

1.2 Report structure

The report is broken down into the following sections:

- Section 2 – Policy: This section provides a review of national, regional, and local parking policy pertaining to the study areas
- Section 3 – Methodology: This section covers the overarching methodology for all of the study areas
- Section 4 – Balsall Common: This section provides a review of the parking in Balsall Common, covering an overview of the study area, site visit findings, survey results, Local Plan growth, future parking demand and mitigation
- Section 5 – Dickens Heath: This section provides a review of the parking in Dickens Heath, covering the same aspects as Section 3
- Section 6 – Knowle: This section provides a review of the parking in Dickens Heath, covering the same aspects as Sections 3 and 4
- Section 7 – Next steps
- Section 8 – Summary

2 Policy

2.1 Introduction

This chapter reviews all national, regional, and local parking policy relevant to the consideration of parking provision within the study area. These documents have been reviewed to identify relevant policy goals and key objectives in order to inform the recommendations of this report.

2.2 National Parking Policy

2.2.1 National Planning Policy Framework (NPPF) (2019)

The NPPF (2019) formulates the Government's planning policies for England and how these should be applied.

Guidance within the document relevant to parking is provided below:

- Paragraph 102 (e): *"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places*".
- Paragraph 103: *"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making".*
- Paragraph 104: *"Planning policies should:*
  - *support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;*
  - *be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;*
  - *identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;*
  - *provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);*
  - *provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and*
  - *recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value*

in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy ".

- Paragraph 105: *"If setting local parking standards for residential and non-residential development, policies should take into account:*
  - *the accessibility of the development*
  - *the type, mix and use of development*
  - *the availability of and opportunities for public transport*
  - *local car ownership levels; and*
  - *the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles".*
- Paragraph 106: *"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework* (NPPF 2020)*). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists".*
- Paragraph 107: *"Planning policies and decisions should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance. Proposals for new or expanded distribution centres should make provision for sufficient lorry parking to cater for their anticipated use".*

2.2.2 Written Statement to Parliament: Planning Update (March 2015)

This written statement to Parliament, published under the 2010 to 2015 Conservative and Liberal Democrat coalition government, outlines *"steps the government are taking to streamline the planning system, protect the environment, support economic growth and assist locally-led decision-making".*

A section of this statement was devoted to 'Parking: helping local shops and preventing congestion'.

It is stated that:

"This government is keen to ensure that there is adequate parking provision both in new residential developments and around our town centres and high streets.

The imposition of maximum parking standards under the last administration led to blocked and congested streets and pavement parking. Arbitrarily restricting new off-street parking spaces does not reduce car use, it just leads to parking misery. It is for this reason that the government abolished national maximum parking standards in 2011. The market is best placed to decide if additional parking spaces should be provided.

However, many councils have embedded the last administration's revoked policies. Following a consultation, we are now amending national planning policy to further support the provision of car parking spaces. Parking standards are covered in paragraph 39 of the National Planning Policy Framework. The following text now needs to be read alongside that paragraph: "Local planning authorities should only impose local parking standards for residential and non-residential development where there is clear and compelling justification that it is necessary to manage their local road network.

Building on the success of our previous guidance to help householders rent out under-used car parking spaces, we have also updated planning guidance to local authorities to clarify that non-residential car parking space can be rented out. This will support the shared economy and increase the provision of competitively priced car parking spaces".

2.3 Regional Parking Policy

2.3.1 Transport for West Midlands (TfWM) Movement for Growth: The West Midlands Strategic Transport Plan (2016)

This document, written soon after the creation of the West Midlands Combined Authority, sets out the vision for transport within the West Midlands region over the next 10 years.

Objectives are set out relating to parking policy and these are provided below:

- Paragraph 4.88: *"To make best use of existing and new transport capacity requires effective enforcement of traffic regulations, including parking restrictions, bus lane enforcement and use of powers to enforce other moving traffic offences".*
- Paragraph 4.89: *"There will need to be a more coordinated metropolitan parking strategy, led by the new Combined Authority. This will consider how parking pricing and provision can support the objectives of this transport strategy, mindful of the relationship with delivery of improvements to public transport, cycling and walking. It will also need to consider parking standards in new development in relation to levels of public transport accessibility and walking and cycling provision".*
- Paragraph 4.90: *"The metropolitan parking strategy will need to balance the role of car access to centres to support economic vitality, whilst promoting the use of public transport, cycling and walking. This is to ensure that private car volumes are not at such levels where the dominance of the car detracts from the quality of the environment of our centres".*

2.4 Local Parking Policy

2.4.1 Solihull Local Development Framework Supplementary Planning Document: Vehicle Parking Standards and Green Travel Plans (2006)

This supplementary planning document (SPD) sets out Solihull MBC's vehicle parking standards and provides guidance on their implementation.

In developing and implementing vehicle parking standards, it is pledged that Solihull MBC will:

- *Seek to ensure that the level of parking to serve individual developments will promote sustainable transport choices*
- *Encourage shared or communal use of parking, particularly in town centres and as part of major proposals where peak levels of use do not coincide*
- *Take care not to discourage development from locating in town centres or otherwise threaten investment in them. Town centres and other accessible locations provide opportunities to reduce levels of car parking but the Council will seek to ensure that town centre locations remain attractive to investment*
- *Require provision for car parking for the disabled in accordance with related Solihull MBC advice*
- *Require developments to fund, where appropriate, on-street vehicle [parking controls in areas adjacent to major trip-generating development to ensure that the limitation of off-street parking does not lead to on-street parking pressures*

- *Normally require provision for safe, secure cycle parking in developments and appropriate provision for motorcycle parking*
- *Take account of the need to service the development efficiently and safely*

Furthermore,

"the Council, in assessing car-parking requirements for developments in Solihull Town Centre, and in Shirley and Chelmsley Wood district centres, will…manage parking to ensure that these centres are easy and convenient to access. Emphasis will be on provision of parking for the public rather than for commuters and will take into consideration:

- *Demand for parking*
- *Existing provision for parking*
- *Capacity of the road network*
- *Potential for improvements to public transport*

Within these three centres, or at edge of centre locations, the Council will consider allowing additional vehicle parking over the relevant maximum standard provided the parking will genuinely serve the centre as a whole and that agreement to this can be secured prior to grant of planning permission, that the additional parking is needed to support the vitality and viability of the centre (taking into consideration existing provision) and that it is managed to focus on the needs of shoppers. The Council wills seek to ensure that the scale of parking is in keeping with the size of each centre and its character, and sits well within the local townscape".

Solihull MBC's parking standards and design criteria, contained within this document, can be found in Appendix A.

2.4.2 Solihull Local Plan (SLP): Shaping a Sustainable Future (2013)

This document forms the statutory development plan for the Borough, setting out the long-term spatial vision for how its towns, villages and countryside will develop and change over the Plan period (2011 – 2028), and how this vision will be delivered through a strategy for promoting, distributing, and delivering sustainable development and growth.

Within Chapter 9 'Improving Accessibility and Encouraging Sustainable Travel', Policy P8 'Managing Demand for Travel and Reducing Congestion' sets out guidance for parking provision within the borough. This is outlined below:

- Paragraph a.(iv): *"Provision for parking and servicing will be required in accordance with a Supplementary Planning Document on managing travel demands associated with development".*
- Paragraph a.(vi): *"Off-site parking provision proposed in association with economically important sites will be supported, subject to other policies in the Local Plan, where sustainable transport links between those sites and the parking provision are of a good quality, direct and attractive to use".*

2.4.3 Solihull Local Plan Review (LPR): Reviewing the Plan for Solihull's Future (2020)

SMBC are undertaking a review of the SLP, following the legal challenge resulting in the overall housing requirement being deleted and remitted back to the Council for reconsideration. In addition, since adoption of the SLP, the hybrid bill associated with HS2 has received Royal Assent, which will result in the first station outside of London being built in Solihull on land next to the M42 and opposite the NEC. Construction of the station is scheduled for completion by 2026 and will be built on land currently within the Green Belt.

The Local Plan Review (LPR) is being undertaken to ensure that an up-to-date planning framework is adopted to address the issues facing the area.

Within Chapter 8 'Improving Accessibility and Encouraging Sustainable Travel', Policy P8 'Managing Demand for Travel and Reducing Congestion' sets out guidance for parking provision within the borough. This is outlined below:

- *"The Council will support development proposals which take an evidence-based approach to demonstrate appropriate car parking provision, taking account of location, trip rates and, where relevant, travel plan targets and forecast levels of car ownership".*
- *"Off-site parking provision proposed in association with economically important sites will be supported, subject to other policies in the Local Plan, where sustainable transport links between those sites and the parking provision are of a good quality, direct and attractive to use".*
- *"The Council will expect an evidence-based approach in forecasting parking demand and servicing provision which uses established evidence bases and/or, where relevant, first principles".*

2.5 Summary

To summarise, parking policy at the national, regional, and local level all work in tandem to support the various needs for sustainable development, reducing the need to travel by car whilst maintaining the vitality and viability of town centres. These key objectives are common to all three local centres and indeed many more up and down the country.

Furthermore, the conjunctive needs to promote sustainability and healthy means of travel, reduce town centre pollution, and maintain environmental quality are considered equal to supporting the provision of car parking, so as not to discourage local businesses from locating there, or local people from shopping there.

Ultimately, car parking policy at the local level must take all these factors into account and decide levels of enforcement, capacity, and the promotion of alternatives on individual merit, whilst the policy outlined in this chapter has been applied to inform the recommendations for Balsall Common, Dickens Heath, and Knowle.

3 Methodology

This section covers the overarching methodology that is followed for Balsall Common, Dickens Heath and Knowle. The steps involved for each study area are as follows:

- Identify car parks for study
- Determine existing parking demand and highlight current areas of high demand
- Growth existing demand to 2026 and 2036 in line with the DLP years, both without and with DLP development, and
- Identify areas with significant DLP impact in need of mitigation.

3.1 Parking Identification

A robust assessment has been undertaken of the current off-street and on-street car parking provision in each of the three districts. This was initially achieved using the SMBC website[1], Parkopedia website[2] and Google Maps.[3]

Following this initial review, the study area has been surveyed by Mott MacDonald staff to identify any additional car parks, obtain further details of car park space types and restrictions, and make estimates as to the level of on-street parking provision provided. On-street parallel parking capacity has been estimated based on the length of the parking area and, where applicable, bays were counted.

The calculation used to determine the capacity of on-street parking within each study area is given below:

(Road length in metres / 4.8m) x 75%

The standard length of a parking bay in the UK is 4.8 metres[4]. To account for the general preponderance of driveways and the space that will inevitably accrue between parked cars, this total capacity has been reduced to 75% (as in the previous study), giving an estimated capacity figure for on-street parking.

All car parks and on-street parking that are available to the public have been included in this study, whilst any parking that has been designated as residential permit-holder only or is strictly private has been excluded.

3.2 Surveys

Once the car parks were identified, the next step was to understand the existing parking demand at each location. This was done by consulting with local businesses and by undertaking occupancy surveys at all car parks.

[1] http://www.solihull.gov.uk/Resident/Parking-travel-roads/parking/car-parks

[2] https://en.parkopedia.co.uk/

[3] https://www.google.co.uk/maps

[4] http://eservices.solihull.gov.uk/mginternet/Data/CPH%20Economic%20Development%20&%20Regeneration%20Decision%20Session/200605311800/Agenda/$Appendix%20A%20-%20att4075.doc.pdf

3.2.1 Consultation

A 15-point questionnaire was produced with the overarching aim of understanding business owners' views on the current parking provision in each district and how it affects their business. This was then delivered to each of the 254 local businesses within the three district centres in 2017.

A copy of the questionnaire can be found in Appendix B.

3.2.2 Survey Details

Three types of survey were undertaken for this study. These were:

- Car park occupancy
- On-street parking surveys, and
- Questionnaires (Chapter 3.2.1 above)

These surveys were carried out by Tracsis Plc, with weekday counts undertaken between Tuesday 31 October 2017 and Thursday 2 November 2017, three neutral weekdays in a neutral month.

The on-street surveys were broken down into smaller areas known as 'beats' to facilitate simpler data collection. This enabled a route to be walked which ensured consistency within the hourly surveys.

The recording of number plates has been used to calculate the turnover between sites, enabling the calculation of parking duration and the total number of vehicles utilising the facilities. The data collected has been converted to Excel formats.

3.3 Future Parking Demand

3.3.1 Future Growth

In order to determine future parking demand in each of the areas, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro).

TEMPro is a programme used to calculate growth rates of middle layer super output areas (MSOAs). The calculation is derived from the National Trip End Model (NTEM) datasets which determine long term forecasts representing the Department for Transport's (DfT) best estimate of long term response to demographic and economic trends. Planning data within NTEM is taken from Local Authority (LA) plans, monitoring reports, and targets for the whole LA area and are distributed to NTEM zones according to expected growth factors and factors from historic trends. NTEM also takes 2011 census data into account, among other datasets. The DfT keep the datasets within TEMPro sufficiently current to ensure the most up-to-date outputs.

A base of 2017 was used and then growth factors were calculated for 2026 and 2036. For the without DLP scenario, the increase in households as part of the DLP were removed from the TEMPro assumptions. Then for the with DLP scenario the DLP households were added to the TEMPro assumptions.

Trip end type 'Production / Attraction' was selected, as it is a more accurate representation of those using the area for parking than Origin / Destination, based on assumptions of reasons why people are parking. 'Production' refers to traffic generated *from* the area specified, whereas 'Attraction' refers to trips made *to* the area specified. The 'Attraction' growth generation is the

most appropriate as it has less emphasis on residents parking in their own private drives, therefore not impacting the parking situations in the study areas.

For the majority of the car parks, the 'Attraction' factor has been applied using the 'Car Driver' mode in TEMPro. However, within this study there are station car parks, which are more likely to be impacted by an increase in 'Production'. Therefore, parking associated with rail has had a 'Production' factor applied associated with the 'Rail / Underground' mode in TEMPro.

3.3.2 Future Capacity

The future capacities of each of the car parks have been compared against absolute and effective capacity. The absolute capacity is related to the number of spaces in each of the car parks, with a car park being at absolute capacity if all of the spaces are full.

Effective capacity relates to a car park that once over its effective capacity causes delays through parking searches, even if not at absolute capacity. In the parking industry it is assumed that 85% occupancy is the limit for effective capacity[5]. The aim is for car parks to not exceed effective capacity for any sustained period of time.

[5] https://www.warwickdc.gov.uk/download/downloads/id/4501/draft_car_park_strategy_2018-2028.pdf

4 Balsall Common

4.1 Introduction

Balsall Common is a large village of approximately 7,000 people, roughly equidistant to the large local centres of Solihull and Coventry. It is six miles east of Solihull and is largely residential in character, with some retail and business uses in the village centre.

Figure 4.1 shows the Balsall Common study area. The green area highlights the radius of the village whereas the squares on the map highlight the areas in which the study has been conducted. These areas were chosen through observations made on site visits and agreed by SMBC due to being deemed to have the potential for future parking capacity issues.

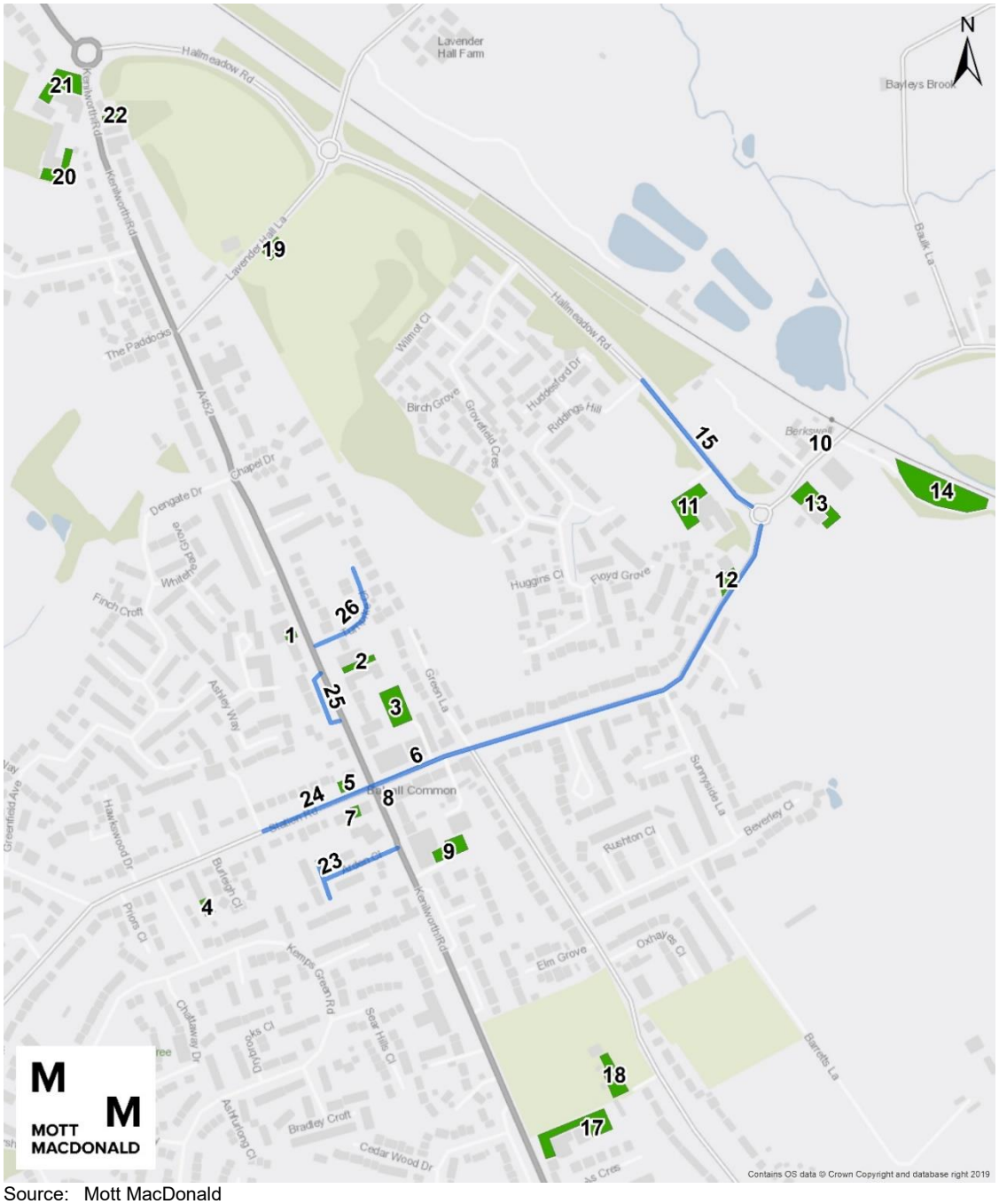
Figure 4.1: Balsall Common study area

Source: Mott MacDonald

4.2 Parking overview

There are 26 parking areas located in Balsall Common, which are shown in Figure 4.2. The green areas represent off-street parking and the blue lines show on-street parking. Full information for each site can be found in Appendix A.

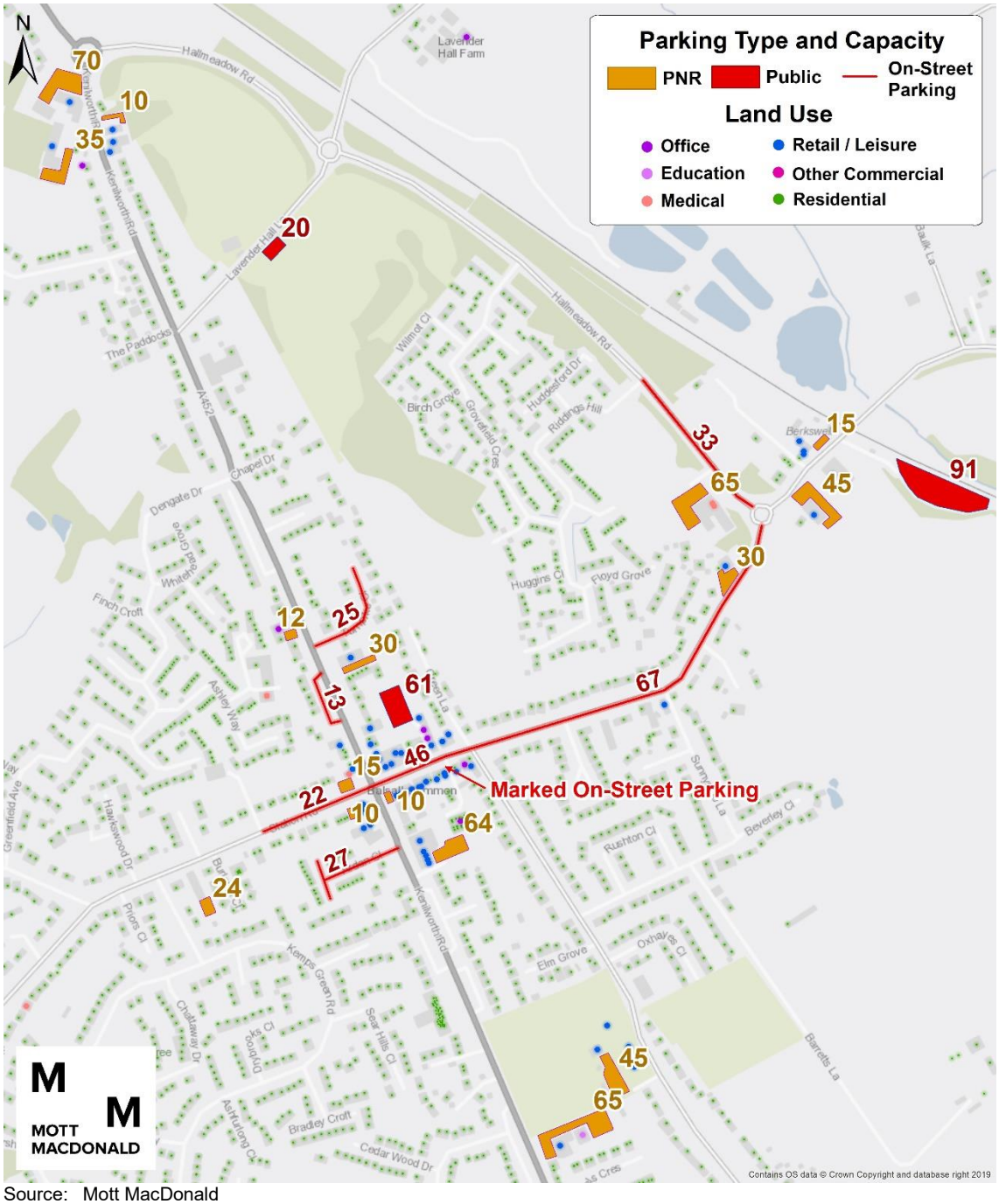
Figure 4.2: Balsall Common parking locations



Source: Mott MacDonald

Figure 4.3 shows the capacity of each of the parking locations along with if the parking is public or private non-residential (PNR). Public parking is shown in red with PNR shown in orange. Land uses have also been shown to help identify the likely purposes for each of the parking locations.

Figure 4.3: Balsall Common parking capacity and type

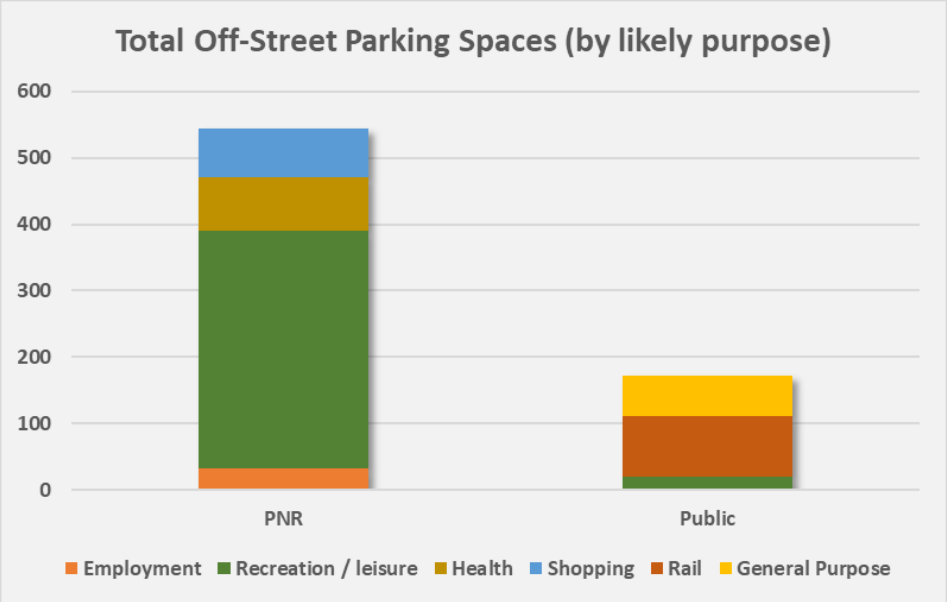


Source: Mott MacDonald

This figure shows that the majority of the off-street parking in Balsall Common is PNR, with the main public parking being at Site 3 (the Library Car Park) in the village centre and at Berkswell Station (Site 14).

Figure 4.4 shows the breakdown of the off-street parking spaces by public and PNR along with the likely purpose of the car park.

Figure 4.4: Off-street parking by type and purpose

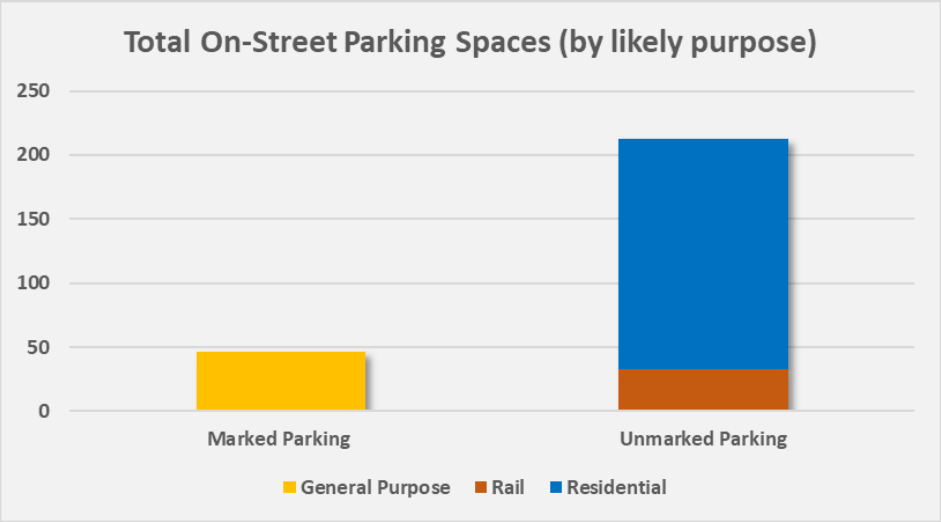


Source: Mott MacDonald

This reiterates that the majority of the parking in Balsall Common is PNR. Of this private parking, the majority is expected to be for recreation / leisure purposes. Around 50% of the public parking in Balsall Common is designated for Berkswell Station (with 91 spaces). Of the remaining off-street public parking, the Library Car Park (Site 3) has 61 spaces and there are 20 spaces at Lavender Hall Park (Site 19).

Figure 4.5 shows the split of on-street parking between marked and unmarked, also split by likely purpose.

Figure 4.5: On-street parking by type and purpose



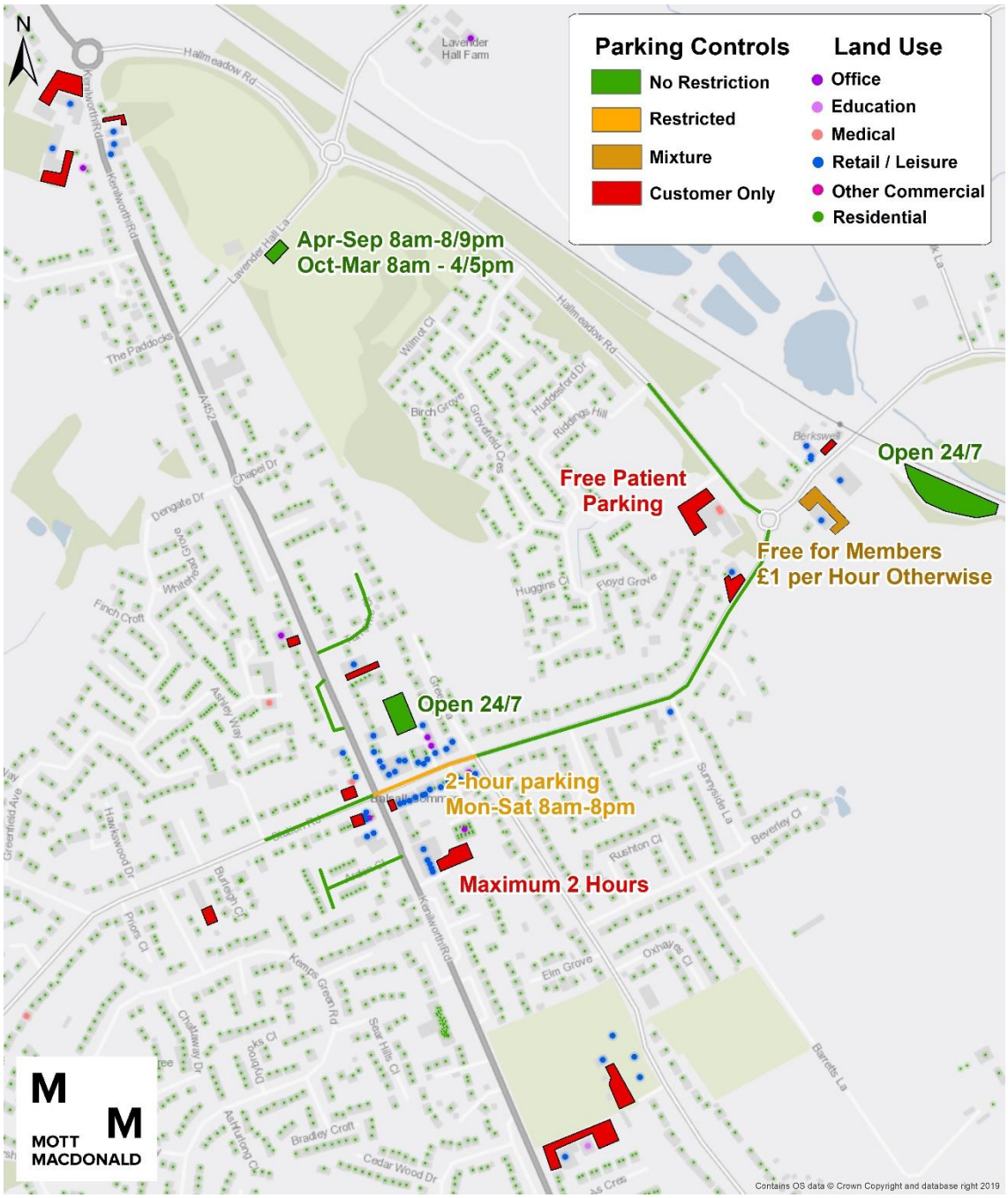
Source: Mott MacDonald

On Station Road to the east of the A452, there are 46 marked on-street parking spaces which are expected to be for general purpose. The rest of the on-street parking is unmarked and, as

Figure 4.5 shows, it is mainly for residential parking. Hallmeadow Road (Site 15) has capacity for around 33 vehicles and due to its proximity to the station is expected to be used for rail parking.

Figure 4.6 shows the parking controls on each of the parking locations in Balsall Common.

Figure 4.6: Balsall Common parking controls



Source: Mott MacDonald

As the figure shows, there is a 2-hour maximum stay limitation at Station Road by the retail area. The other public parking locations have no restrictions, other than opening times for the park.

It should be noted that the fee at the Royal British Legion (Site 13), of £1 per hour, has been implemented since the surveys were conducted. This is likely to have displaced some cars from this car park to nearby on-street parking, as there is limited off-street parking near the station. This has been considered when analysing the 2017 data and when forming mitigation.

4.3 Alternative modes

A high-level review of the walking, cycling and public transport infrastructure in Balsall Common has been undertaken. This is to show the alternative mode choices that could be taken to access the destinations served by the car parks.

4.3.1 Site visit

On the Mott MacDonald site visit it was noted that, in general, all footways are in a good condition with numerous pedestrian crossings available. Some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- The pedestrian route between the A452 Kenilworth Road and Balsall Common Library car park is dark with inadequate lighting
- The pedestrian footpath between the A452 Kenilworth Road and Balsall Common Sports Centre is dark and secluded, with inadequate lighting, and
- Car parking on Hallmeadow Road is on the opposite side of the carriageway to footway provision.

4.3.2 Walking and cycling routes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Balsall Common. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on. This is due to the nature of the roads being quiet and residential in character with a low number of vehicular movements. These routes are shown in Figure 4.7 along with potential walking routes.

Figure 4.7: Balsall Common cycling & walking network

Source: www.solihull.gov.uk/Portals/0/LeisureParksEvents/Cycling_and_Walking_foldout_map.pdf

In Balsall Common itself, there are various advisory routes as well as two shared use routes on Hallmeadow Road and the A452 Kenilworth Road. Balsall Common is considered a cycle-friendly environment, with advisory routes linking residential areas to the main trip attractors.

4.3.3 Bus routes

The following table provides details on the bus routes that serve Balsall Common.

Table 4.1: Bus services

Bus service	Bus route
87	Coventry – Solihull via Balsall Common, Knowle and Copt Heath
88	Solihull – Balsall Common via Copt Heath, Knowle, Chadwick End and Fen End
89	Solihull – Coventry via Hampton-in-Arden, Meriden, Berkswell and Balsall Common
233	Solihull – Kenilworth via Knowle, Tile Hill, Balsall Common and Burton Green

4.4 Consultation

4.4.1 Questionnaire

A 15-point questionnaire was produced with the overarching aim of understanding business owners' views on the current parking provision in each district and how it affects their business. A copy of the questionnaire can be found in Appendix B.

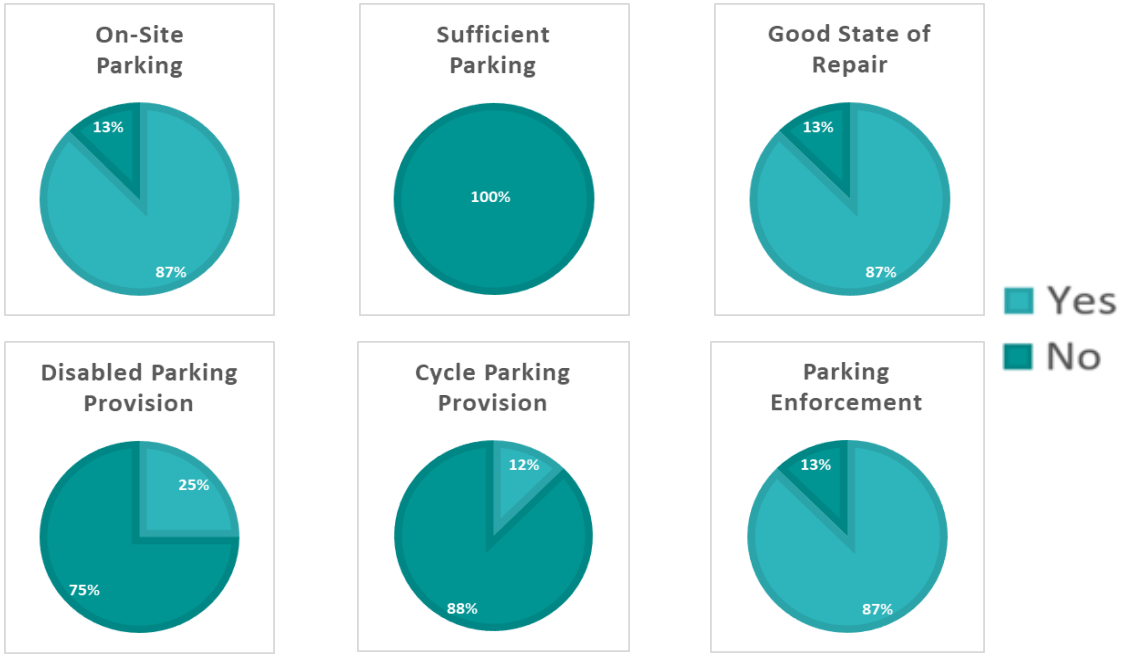
4.4.2 Business Comments

Of the businesses in Balsall Common which were consulted regarding the current state of parking provision in the district, there were eight respondents. Within Balsall Common, seven of the responding businesses have on-site parking, with a number of these having capacity issues so are still reliant on public parking at peak times.

Seven of the businesses stated that the parking provided within the village is in a good state of repair and that there is enough enforcement, although the same number of businesses believe there is not enough cycle parking available. Each of the eight businesses stated there is not enough parking provision, but responses were mixed when asked whether the existing parking provision is a help or hindrance to their business.

One issue cited by businesses is that there is a lack of parking in the village centre, particularly surrounding the Station Road shops, leading to the area becoming congested.

Figure 4.8: Selected results from Balsall Common business consultations



Source: Mott MacDonald

4.5 Existing parking demand

4.5.1 Introduction

This section outlines the existing levels of demand based upon surveys undertaken by survey specialists Tracsis Plc in 2017. As part of updating the analysis in 2020, surveys were going to be undertaken on a Saturday and on a neutral weekday at any locations where tariffs had changed. However, due to Covid-19 these surveys were not able to take place.

Some of the parking demand may have changed since the 2017 surveys, with The Royal British Legion (Site 13) implementing a charge since the surveys. The displacement of station parking from this location is likely to have had an impact on this car park as well as the on-street parking on Hallmeadow Road and at the Station Car Park. However, since new surveys have not been able to be conducted, the 2017 data has been used.

4.5.2 Survey details

Full details on the surveys can be found in Section 3.2.2.

In Balsall Common the following car parks were not surveyed:

- White Horse Pub (Site 17, 65 spaces)
- Balsall Common Sports Association (Site 18, 45 spaces)
- Lavender Hall Park (Site 19, 20 spaces)
- Premier Inn (Site 20, 35 spaces)
- Premier Inn / Beefeater (shared) (Site 21, 70 spaces)
- Sainsbury's Local (Site 22, 10 spaces)

These car parks were not surveyed due to their remoteness from either the village centre or the train station. In total, 245 spaces have been discounted.

4.5.3 Existing demand

Figure 4.9 below shows the maximum utilisation surveyed in 2017 for each parking location. This is at any point during the day and it should be noted that many car parks are at their maximum peaks at different times.

Whilst some sites were surveyed each hour between 06:00 and 17:00, some sites were surveyed at three points in the day, at 07:00, 12:00 and 17:00. The peak hour out of the three times surveyed across all car parks was at 12:00. Figure 4.10 shows the utilisation at each of the car parks at 12:00.

Figure 4.9: Balsall Common 2017 Maximum Utilisation

Source: 2017 Parking Survey

Figure 4.10: Balsall Common 2017 Utilisation at 12:00

Source: 2017 Parking Survey

These figures show that many car parks are getting close to capacity, with the main areas of high utilisation being near Berkswell Station and at the parking by the retail on Station Road.

The train station car park is close to absolute capacity, with only eight remaining spaces surveyed at 12:00. Hallmeadow Road is also expected to be used for rail parking and is currently at 91% capacity, again at 12:00. The Royal British Legion was surveyed to be at 93% capacity, but charges have since been implemented. This is likely to have increased the demand on Hallmeadow Road and the station car park, as well as other nearby residential streets.

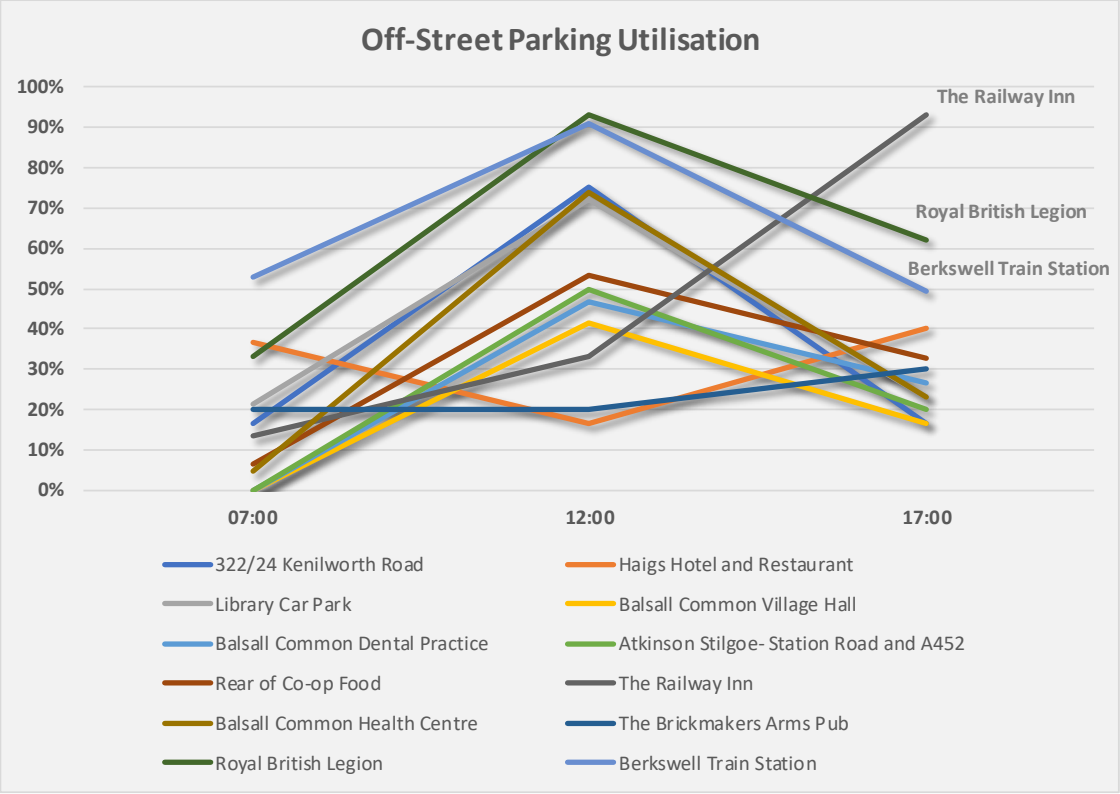
In the village centre, the marked parking on Station Street reaches absolute capacity at 11:00 and the Library Car Park reaches 75% utilisation at 15:00. This demand may be causing congestion on Station Street through parking searches, due to a lack of spare spaces. The lack of spaces may also be leading to parking in 'keep clear' areas on Station Street or on double yellow lines on nearby roads.

Generally, the other parking is less utilised and has spare capacity.

4.5.3.1 Off-street parking

All sites were surveyed at 07:00, 12:00 and 17:00. The following figure shows the utilisation at each of the surveyed off-street car parks at these times.

Figure 4.11: Balsall Common off-street car park utilisation

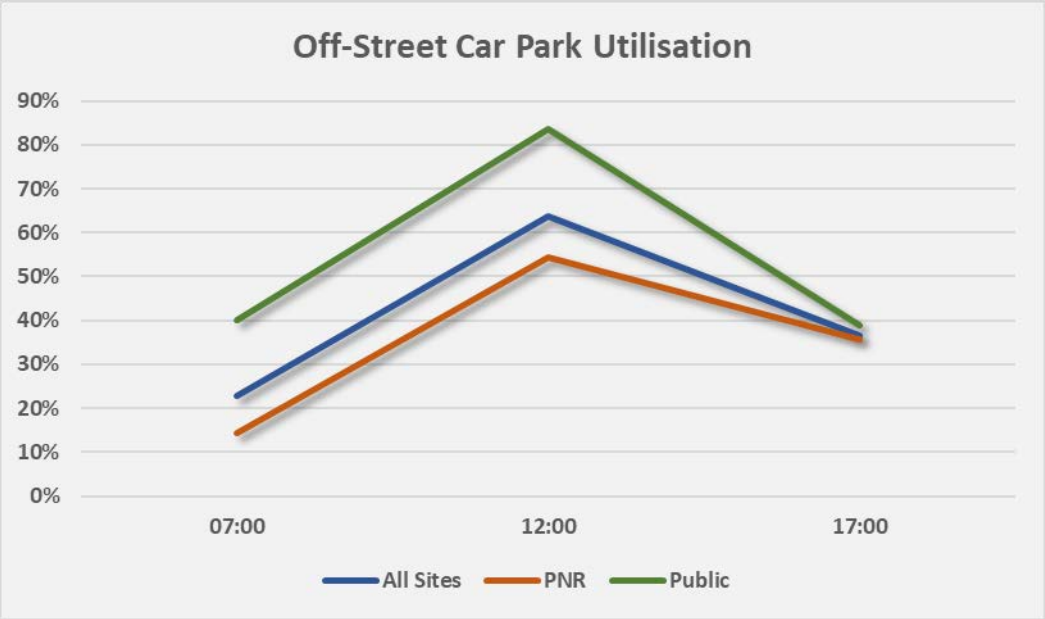


Source: 2017 Parking Survey

This shows that most of the car parks have peak utilisation around 12:00. The most notable exception to this is The Railway Inn, which has its peak at 17:00. This car park is restricted to patrons only.

Figure 4.12 summaries the above graph into public, PNR and all off-street parking utilisation.

Figure 4.12: Balsall Common off-street car park utilisation by type

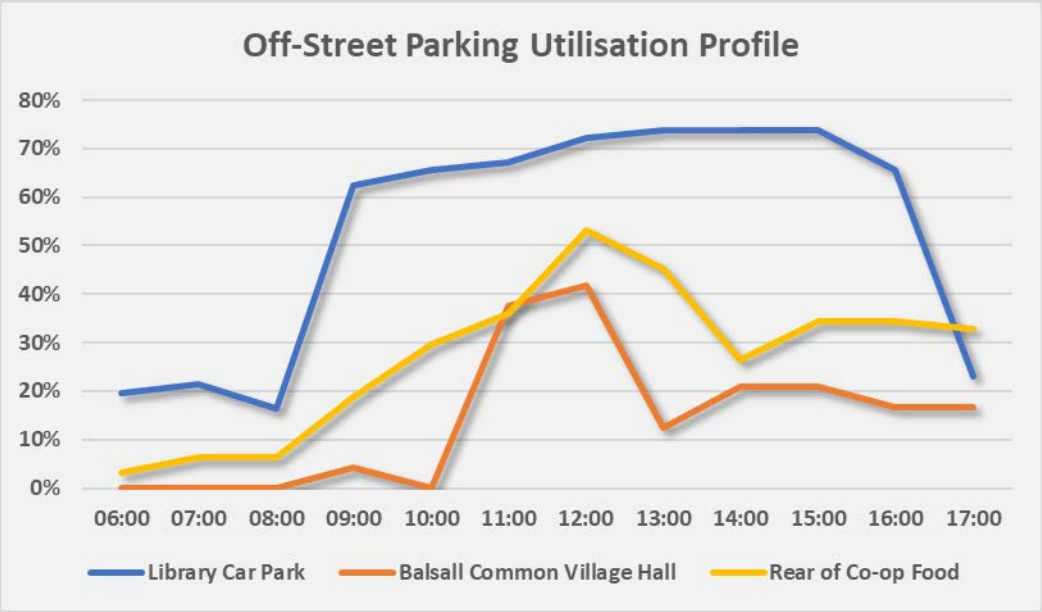


Source: 2017 Parking Survey

This shows that whilst the utilisation for all sites only reaches 64%, the utilisation for public car parking reaches 84%. This is due to there being more PNR parking which is not as utilised.

Three off-street car parks had 12-hour occupancy surveys which were the Library Car Park (Site 3), Balsall Common Village Hall (Site 4) and the parking at the rear of the Co-op Food (Site 9). The profile of the utilisation is shown in the following figure.

Figure 4.13: Balsall Common off-street car park utilisation profile

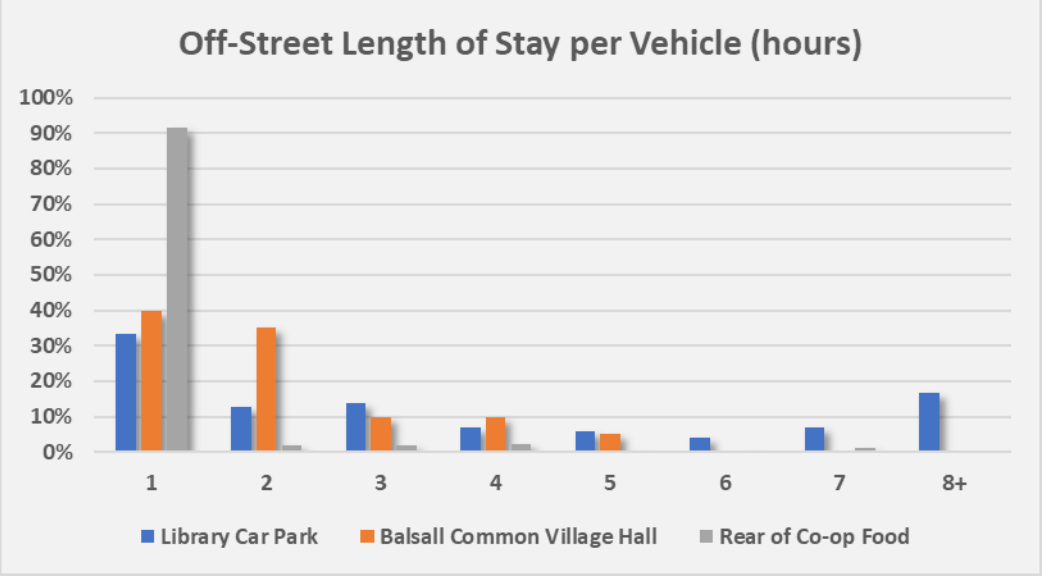


Source: 2017 Parking Survey

This shows that these three car parks have their highest utilisation around midday, with the Library Car Park maintaining a high number of vehicles until around 15:00.

The length of stay per vehicle for these three car parks is shown in Figure 4.14.

Figure 4.14: Off-street length of stay per vehicle

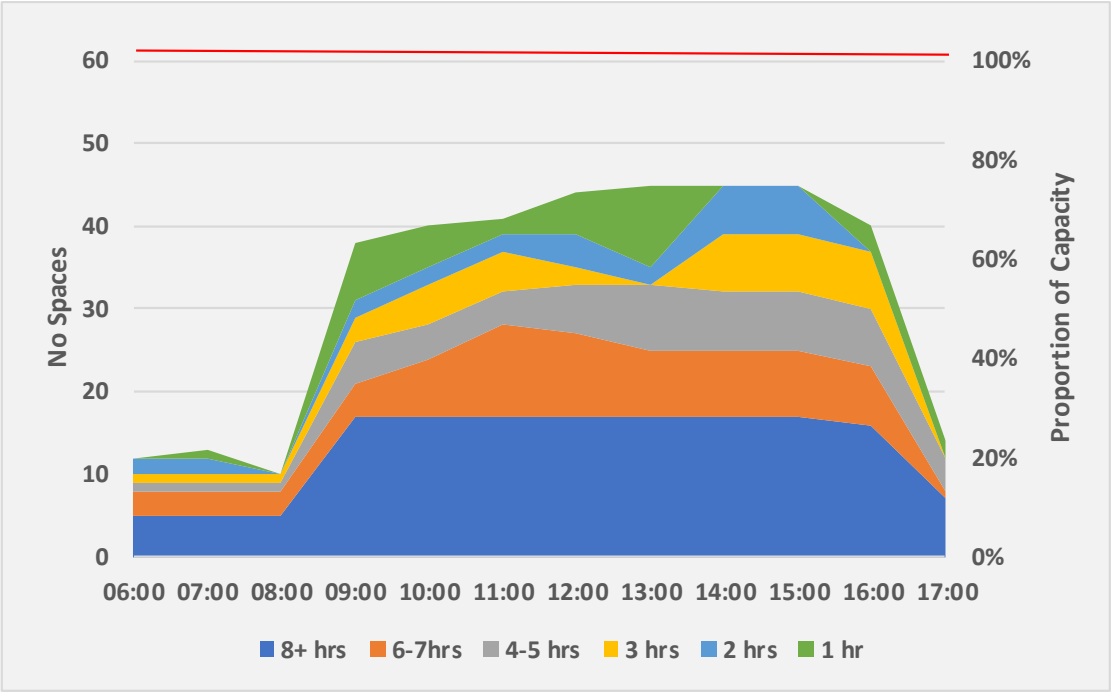


Source: 2017 Parking Survey

As the figure shows, nearly all of the vehicles using the Co-op car park stay for one hour or less, with none staying over eight hours. The Library car park sees longer stays, with only 33% staying for an hour and with 17% staying for over eight hours.

Figure 4.15 below shows the utilisation of the Library Car Park broken down by the spaces occupied by vehicles staying for certain lengths of time.

Figure 4.15: Library car park utilisation by length of stay



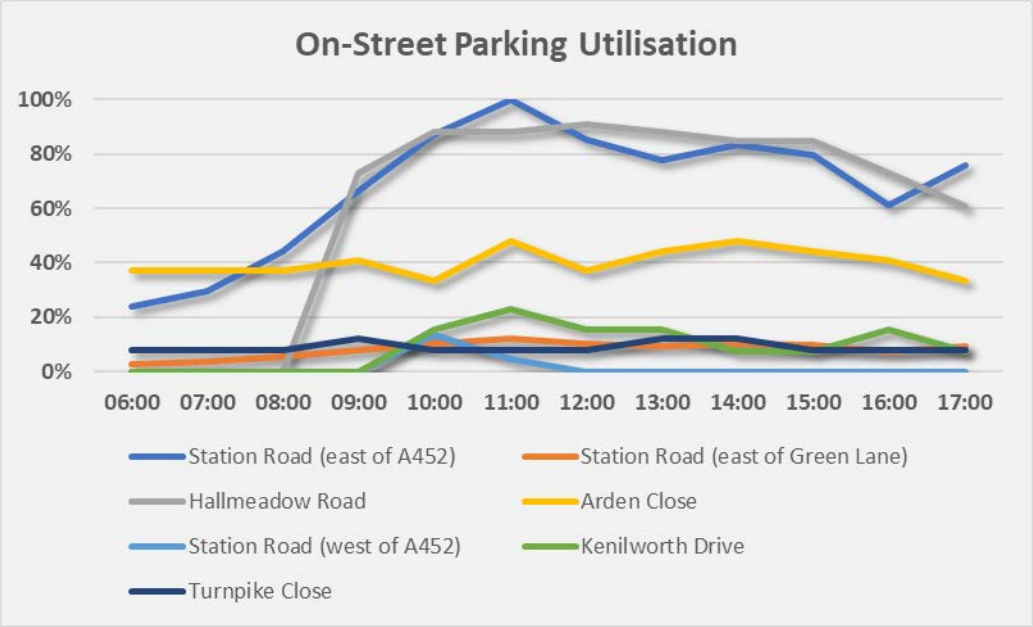
Source: 2017 Parking Survey

This shows that a significant portion of the Library Car Park's capacity is being used by vehicles staying over eight hours; especially between 09:00 and 16:00 where around 25% of the spaces are occupied by vehicles staying over eight hours. Cars staying over six hours take up around 45% of the spaces at 11:00, which is the peak time for public parking in the village centre of Balsall Common.

4.5.3.2 On-street parking

All the on-street parking was surveyed each hour over a 12-hour period. The profiles for the utilisation of each road are shown in the graph below.

Figure 4.16: On-street parking daily profile



Source: 2017 Parking Survey

This shows that the only roads where the on-street parking is getting close to, or at, absolute capacity is on Station Road east of the A452 and on Hallmeadow Road. This is also shown in Figure 4.9. The marked parking on Station Road reaches capacity at 11:00, but there are other points during the day where it is over 80% utilised. Hallmeadow Road reaches around 90% utilisation at 10:00 and remains well utilised until around 15:00 where the number of cars parked then decreases.

As discussed previously, these two on-street parking locations are in the two areas in Balsall Common that see high demand, at the rail station and in the village centre. All other on-street parking, which is mainly residential, remains at low utilisation throughout the day.

4.5.4 Summary

Survey data from 2017 was used to determine the current parking demand in Balsall Common due to new surveys not being able to take place due to Covid-19. Since the surveys, The Royal British Legion car park has implemented parking tariffs, which is likely to have impacted the parking in that car park and on nearby parking levels.

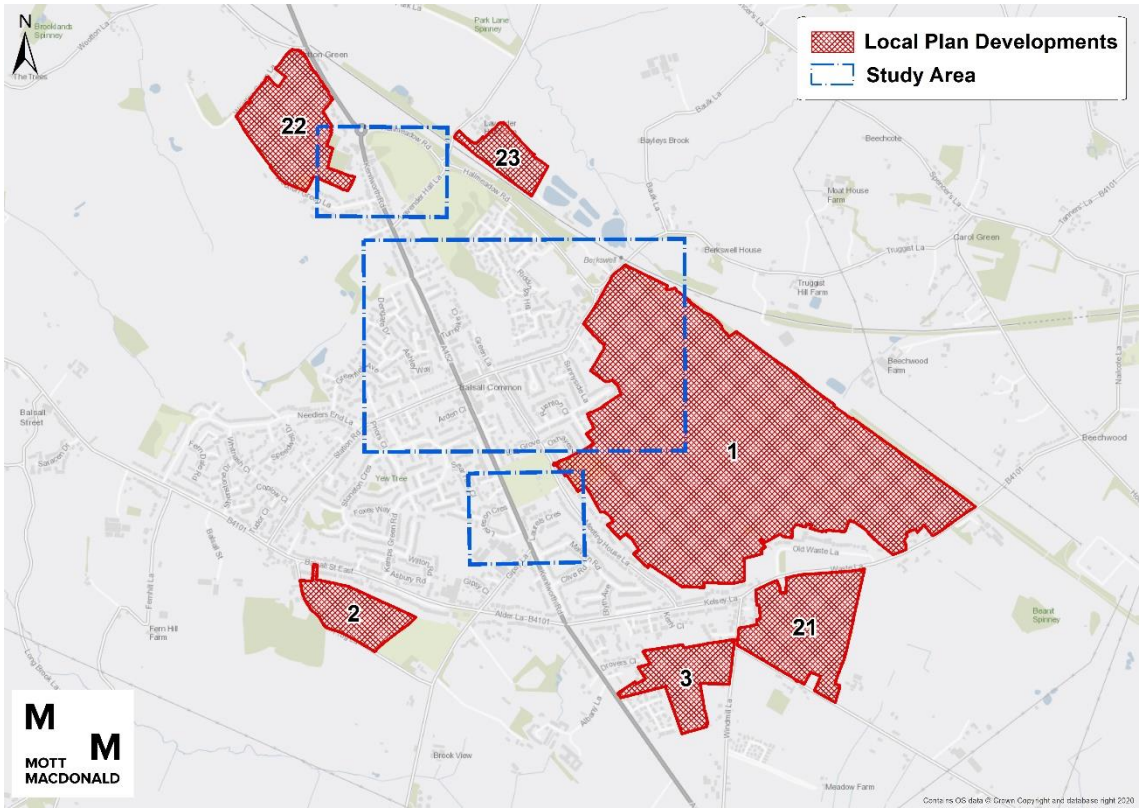
There are two areas in Balsall Common that see high parking demand, at Berkswell Station and in the village centre near the retail on Station Road. Around the station, the Station Car Park, The Royal British Legion and the on-street parking on Hallmeadow Road already experience over 90% utilisation.

In the village centre, the marked on-street parking on Station Road reaches capacity and the Library Car Park reaches around 75% capacity. There are a number of cars parked in the Library Car Park that are parked for over eight hours.

4.6 Local Plan growth

Within Balsall Common there are six proposed DLP developments, which are shown in Figure 4.17 below.

Figure 4.17: Balsall Common DLP developments



Source: SMBC

The build-out projection for each site in 2026 and 2036 is shown below.

Table 4.2: Balsall Common DLP development projection

Site number	No. of dwellings	Built by 2026	Built by 2036
1	875	0	875
2	110	110	110
3	120	120	120
21	200	0	200
22	230	77	230
23	80	0	80
Total	**1615**	**307**	**1615**

This shows that only a relatively small amount of the dwellings are planned to be built by 2026, with the majority being built by 2036.

4.7 Future parking demand

4.7.1 Methodology

In order to determine future parking demand in each of the areas, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro). The method for calculating this trip rate is set out in Section 3.3, with the MSOA of 'Solihull 025' being selected for the Balsall Common analysis.

This has resulted in the following growth factors for Balsall Common:

Table 4.3: Balsall Common TEMPro growth factors

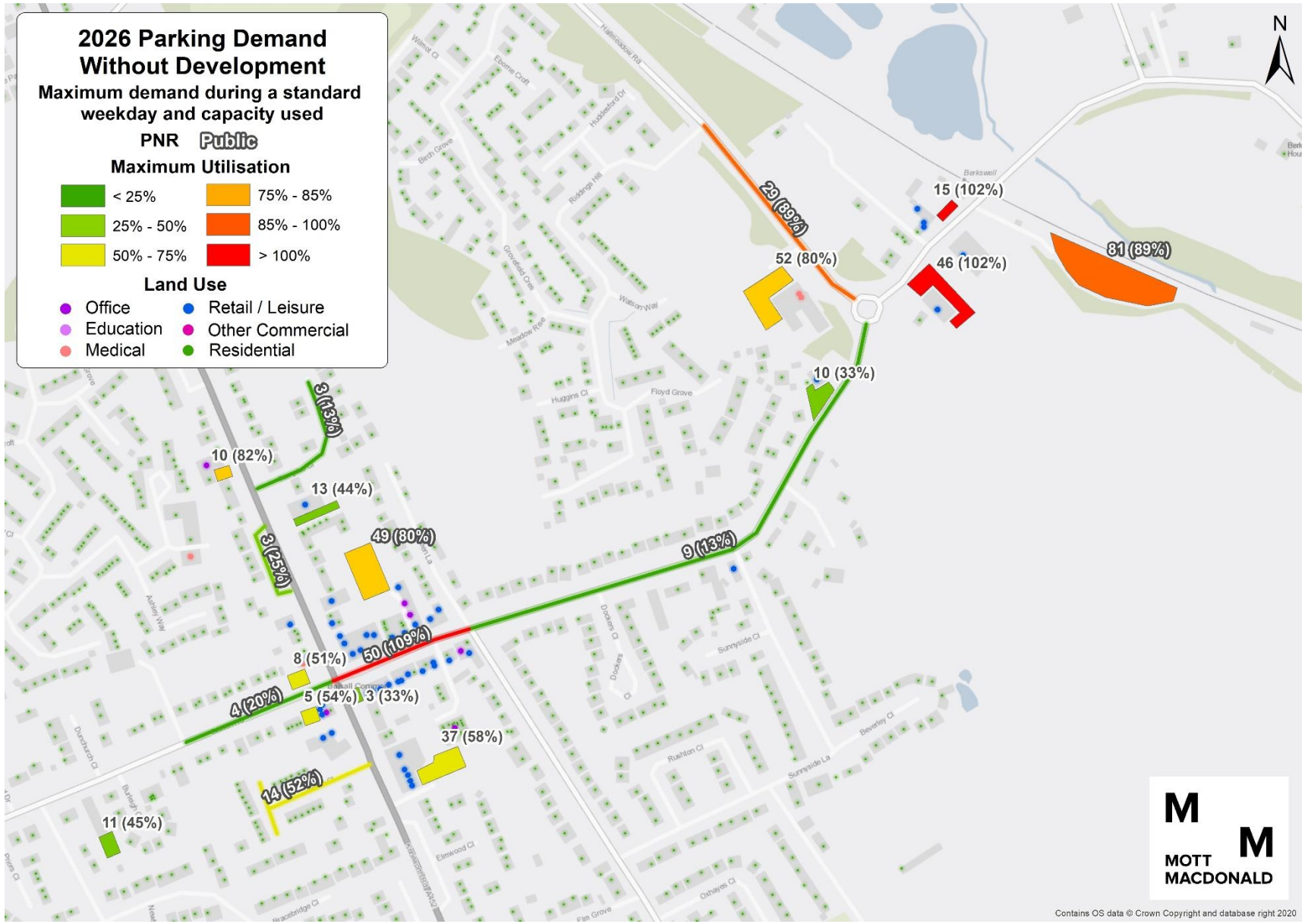
Average weekday	Car driver attraction		Rail / underground production	
	No DLP	With DLP	No DLP	With DLP
2026	1.088	1.095	0.980	1.031
2036	1.167	1.210	0.971	1.239

4.7.2 2026 forecast demand

The growth factors shown in Table 4.3 have been applied to the surveyed demand, with the 2026 without DLP maximum occupancy results show in Figure 4.18 and the equivalent 2026 with DLP results shown in Figure 4.19.

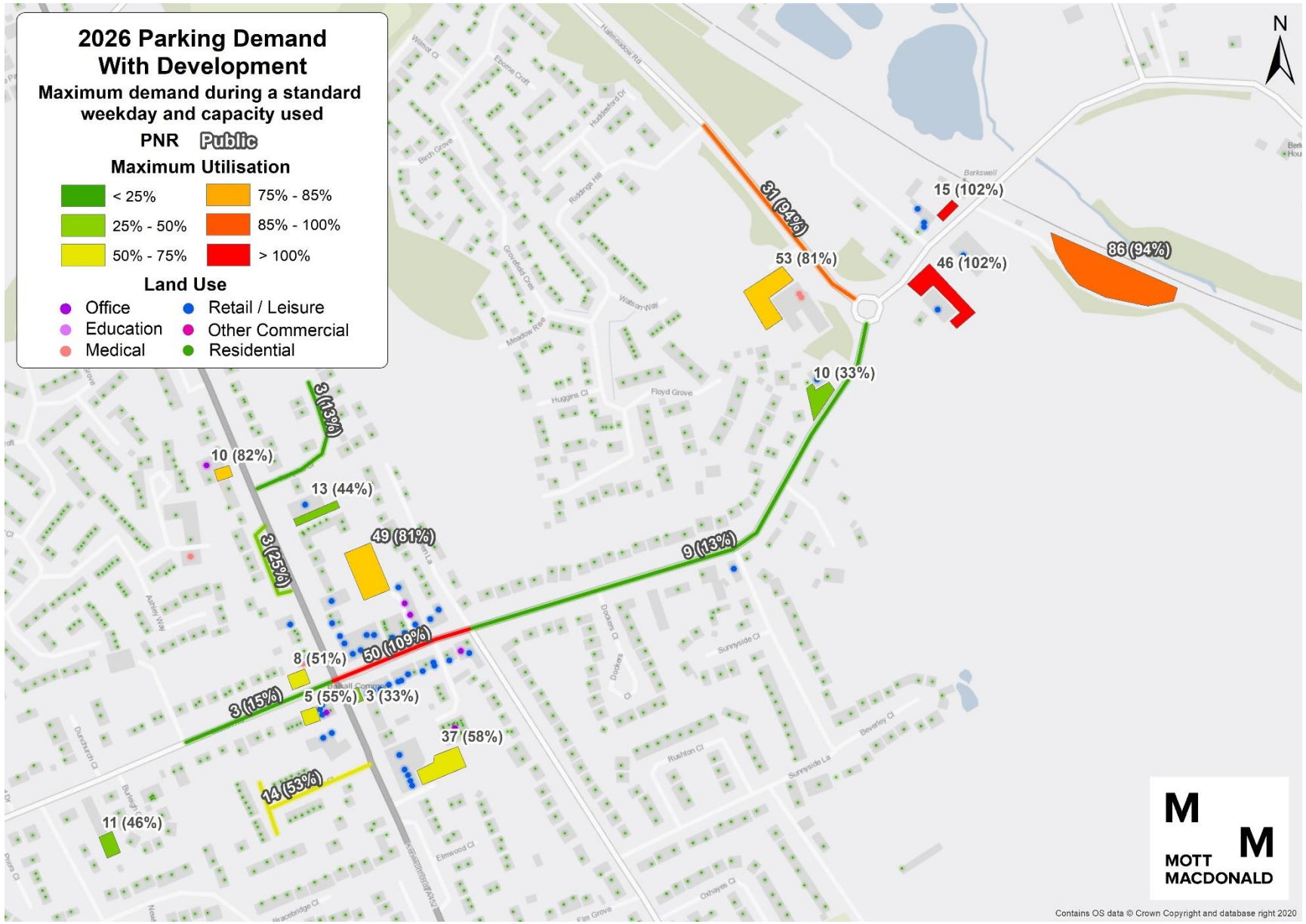
As with the base data, the capacity of the car parks at 12:00 has also been presented to show a snapshot at the peak time over the surveyed locations. The 2026 without and with DLP are shown in Figure 4.20 and Figure 4.21 respectively.

Figure 4.18: Maximum utilisation 2026 without DLP



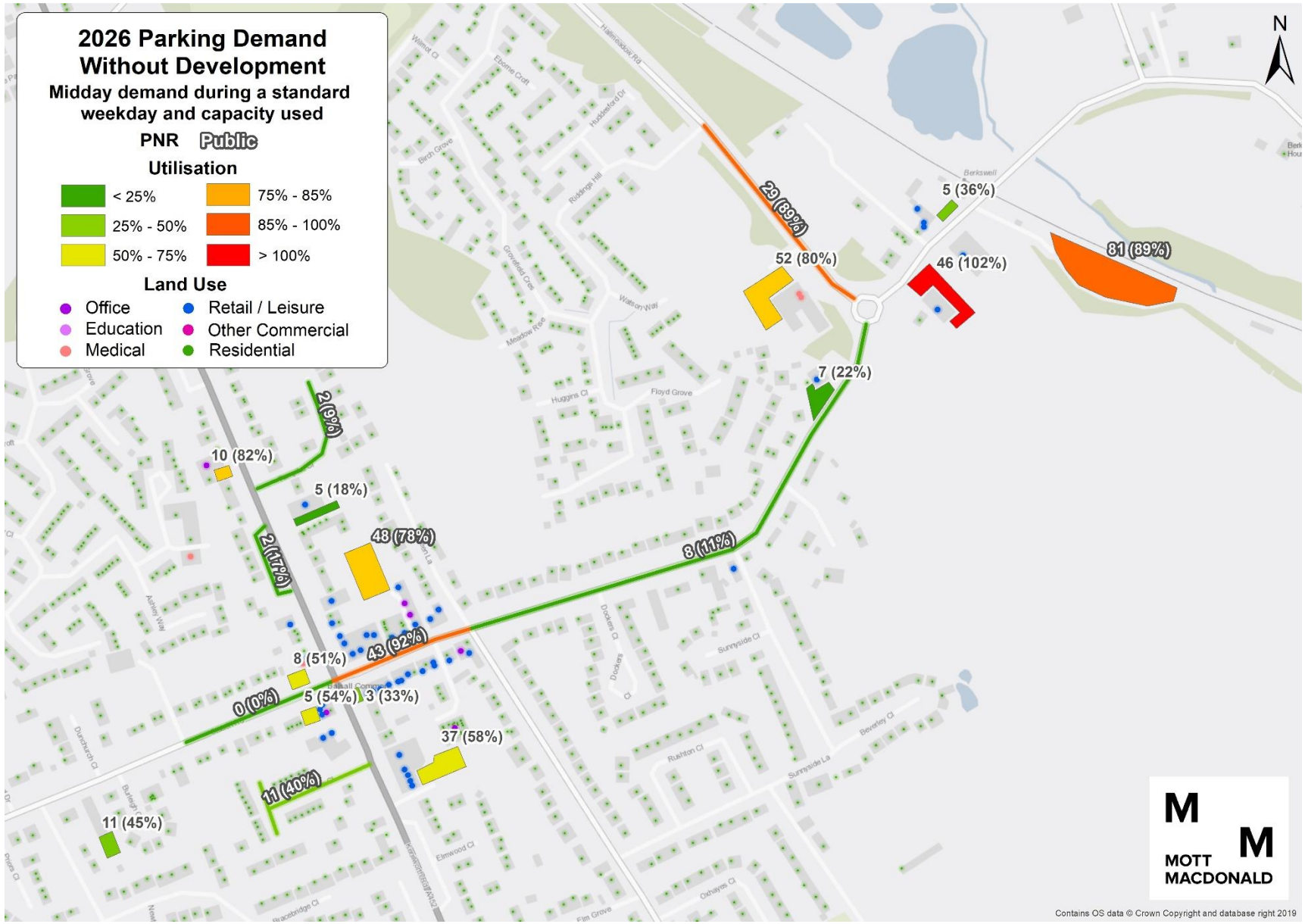
Source: 2017 Parking Survey and TEMPro Growth

Figure 4.19: Maximum utilisation 2026 with DLP



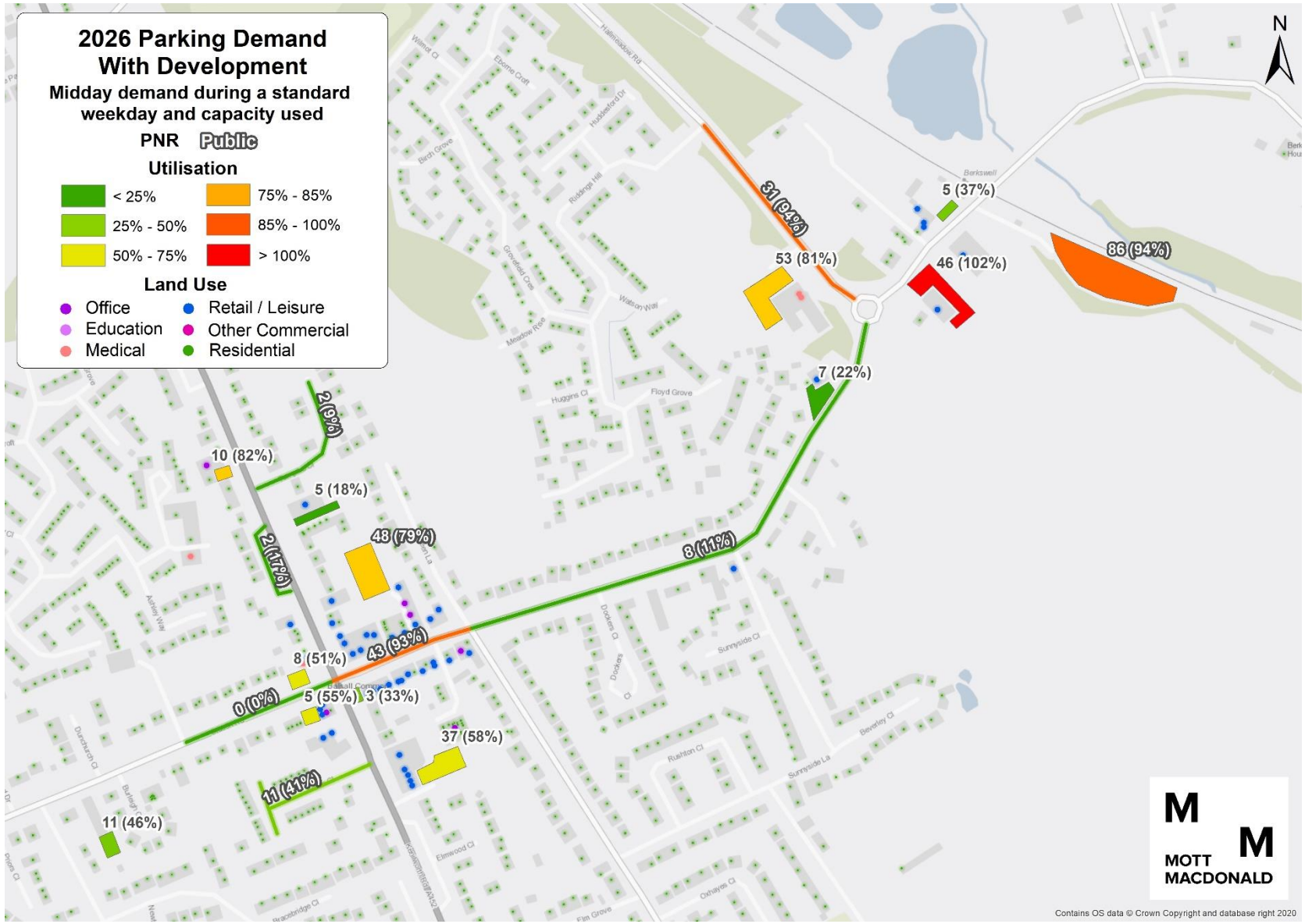
Source: 2017 Parking Survey and TEMPro Growth

Figure 4.20: Midday utilisation 2026 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 4.21: Midday utilisation 2026 with DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 4.18 shows that in 2026 without DLP growth, the parking demand still increases and is forecast to be over absolute capacity at the marked parking on Station Road. However, this figure is showing demand at each individual location, so if it is over capacity then these vehicles are likely to go to another car park. There is forecast to be spare capacity in the Library Car Park to accommodate the increased demand on Station Road, though this is likely to cause delays due to the narrow access to the car park and with the resulting demand exceeding 85% capacity.

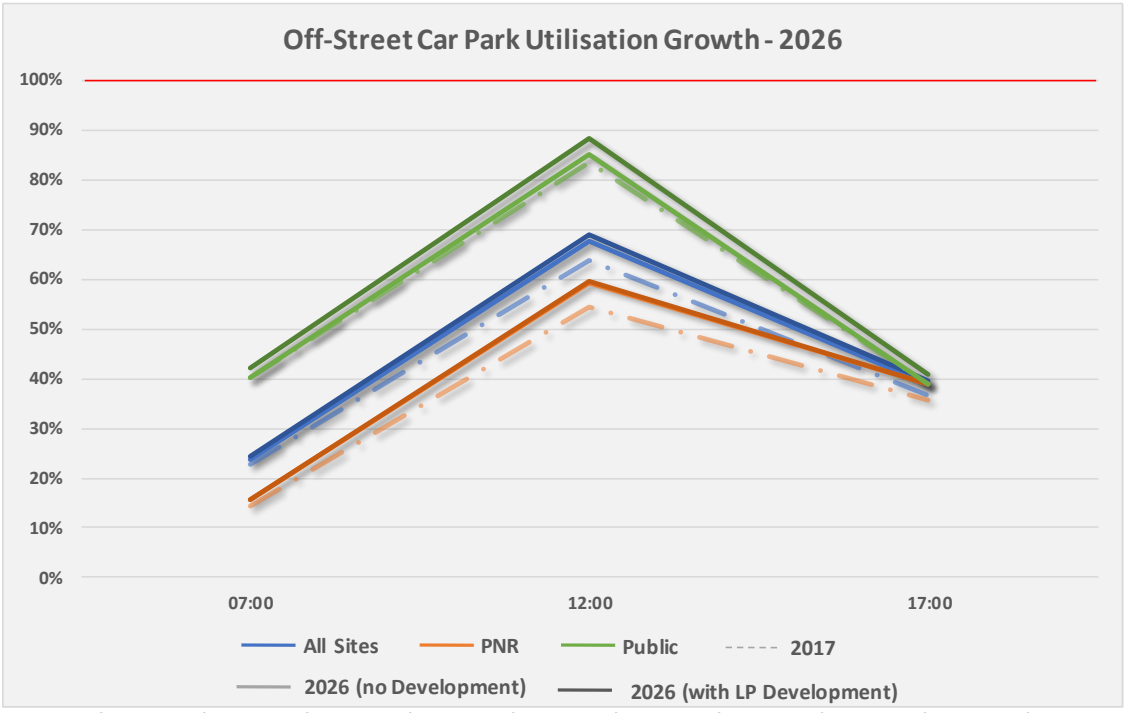
Figure 4.19 shows that the DLP has only a marginal impact on many of the car parks in 2026. The only car parks that see significant growth are the car parks by Berkswell Station, though the actual increase in cars is relatively low. However, since this area is already close to capacity, a small increase in demand is still likely to cause further issues with delay caused by parking searches.

At midday, the area with the biggest DLP impact is again the car parks at the station. The increased demand in the village centre on Station Road could be accommodated in the Library Car Park at this time of day. However, since this parking was surveyed to be at 100% capacity at 11:00, this shows that there may be a preference to parking on the street rather than in the Library Car Park. This increased demand on Station Road is therefore likely to cause delays on the highway through parking searches may also result in cases of parking on 'keep clear' areas or on nearby double-yellow lines.

4.7.2.1 Off-street 2026 forecast demand

The following graph shows the overall forecast utilisation in 2026, with and without DLP growth, for off-street parking.

Figure 4.22: 2026 forecast off-street parking utilisation

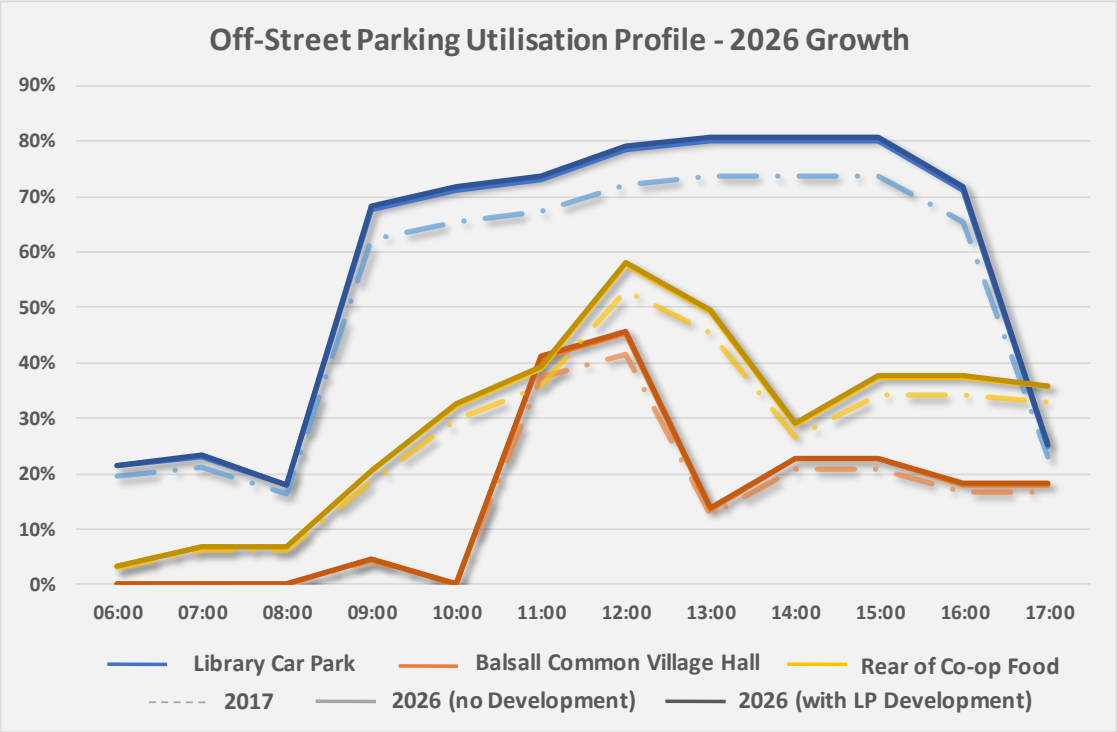


Source: 2017 Parking Survey and TEMPro Growth

This shows that the DLP has marginal impact in 2026 and overall there is still remaining capacity for both public and PNR parking.

Figure 4.23 shows the forecast utilisation throughout the day at the Library Car Park, Village Hall and Co-op in 2026 with and without DLP growth.

Figure 4.23: Off-street parking profile 2026



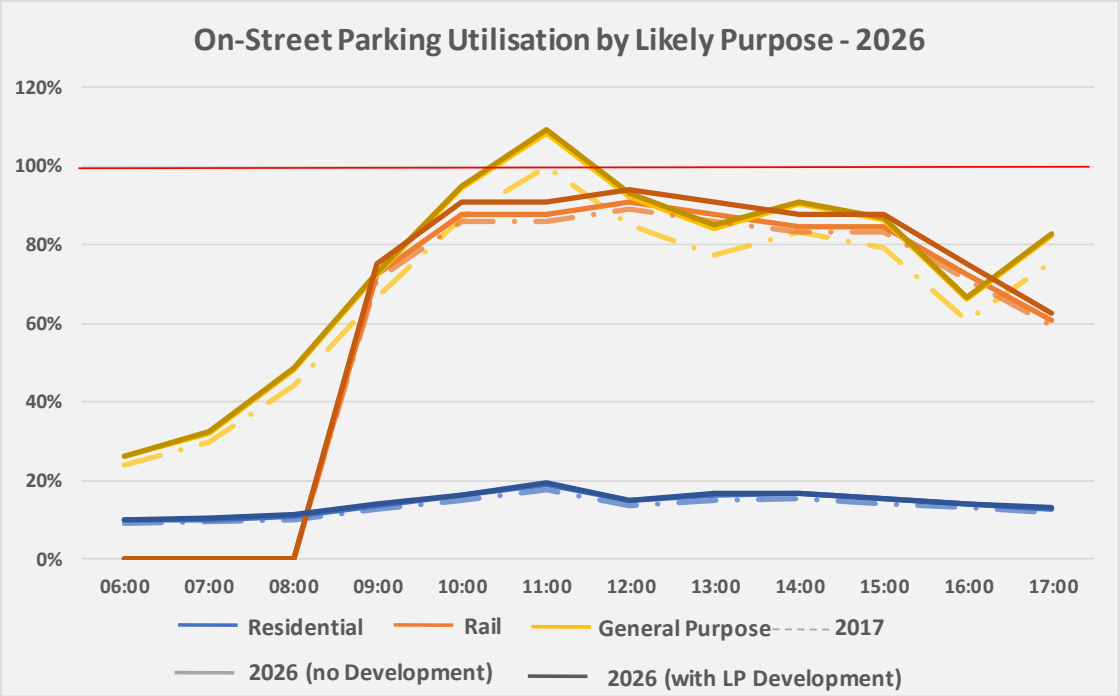
Source: 2017 Parking Survey and TEMPro Growth

This again shows that the background growth has the largest impact on all of the car parks, with the DLP having a marginal additional impact. The Library Car Park gets close to the operational capacity of 85% in 2026.

4.7.2.2 On-street 2026 forecast demand

Figure 4.24 shows the forecast 2026 growth for on-street parking by likely purpose.

Figure 4.24: On-street parking profile by purpose 2026



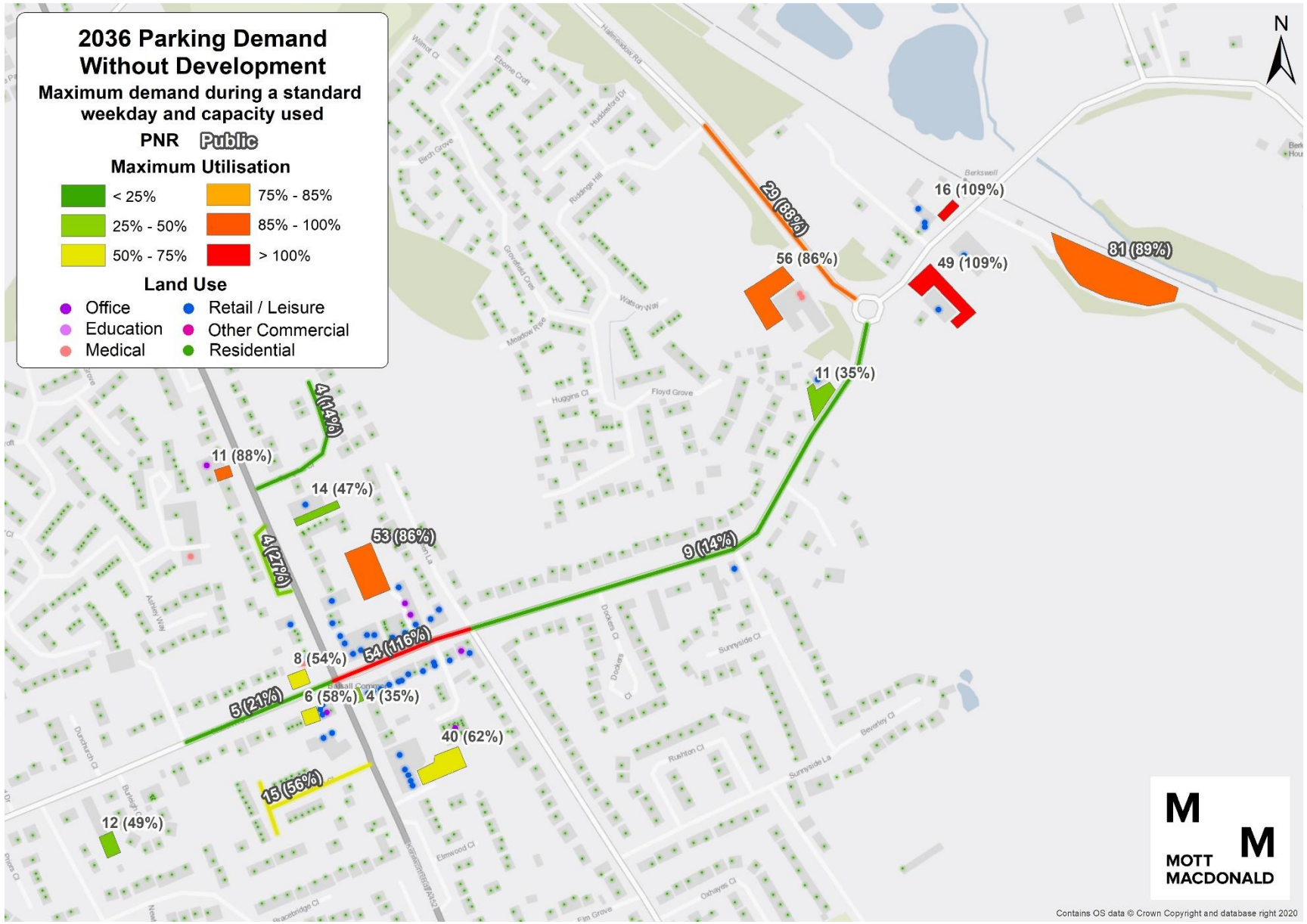
Source: 2017 Parking Survey and TEMPro Growth

This shows that general purpose on-street parking is forecast to go over absolute capacity in 2026, but this is caused primarily by background growth rather than the DLP. The DLP has a larger impact on the on-street rail parking (at Hallmeadow Road), which is forecast to increase to around 93% capacity. There is forecast to be small growth on residential streets, with the DLP having minimal impact.

4.7.3 2036 forecast demand

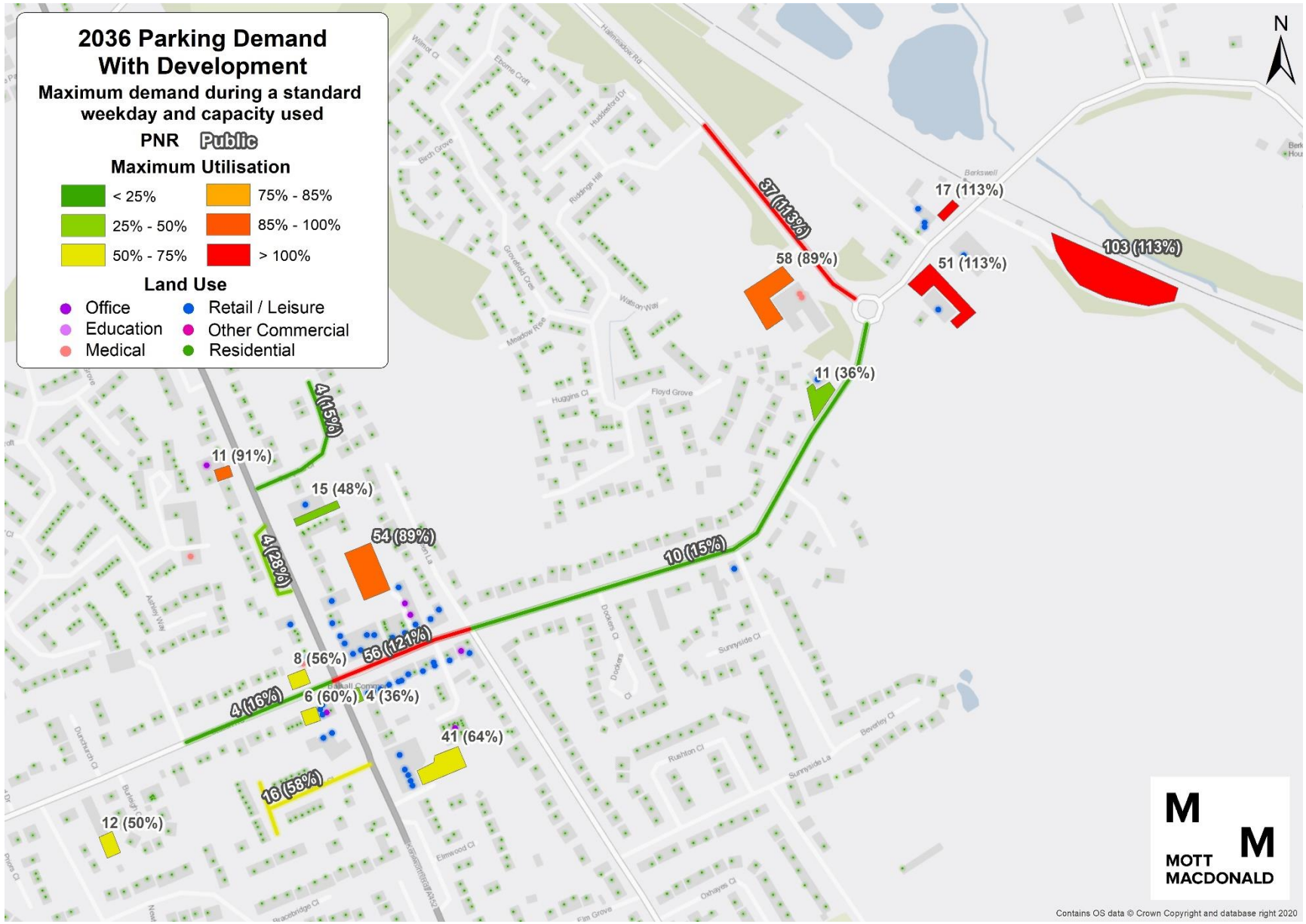
The growth factors shown in Table 4.3 for 2036 have been applied to the surveyed demand, with the 2036 without DLP maximum occupancy results shown in Figure 4.25 and the equivalent 2036 with DLP results shown in Figure 4.26. The equivalent figures for the midday utilisation are shown in Figure 4.27 and Figure 4.28.

Figure 4.25: Maximum utilisation 2036 without DLP



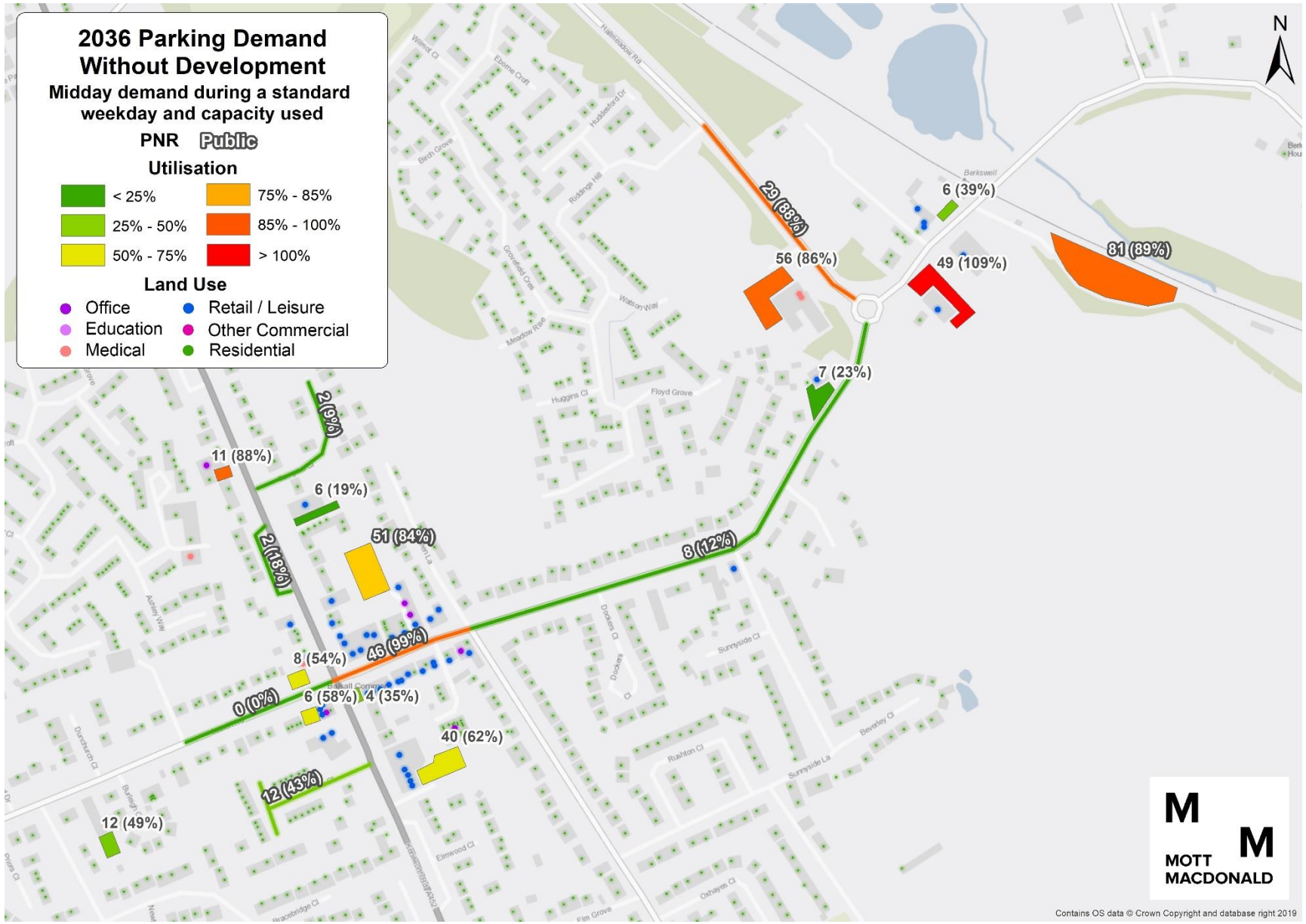
Source: 2017 Parking Survey and TEMPro Growth

Figure 4.26: Maximum utilisation 2036 with DLP



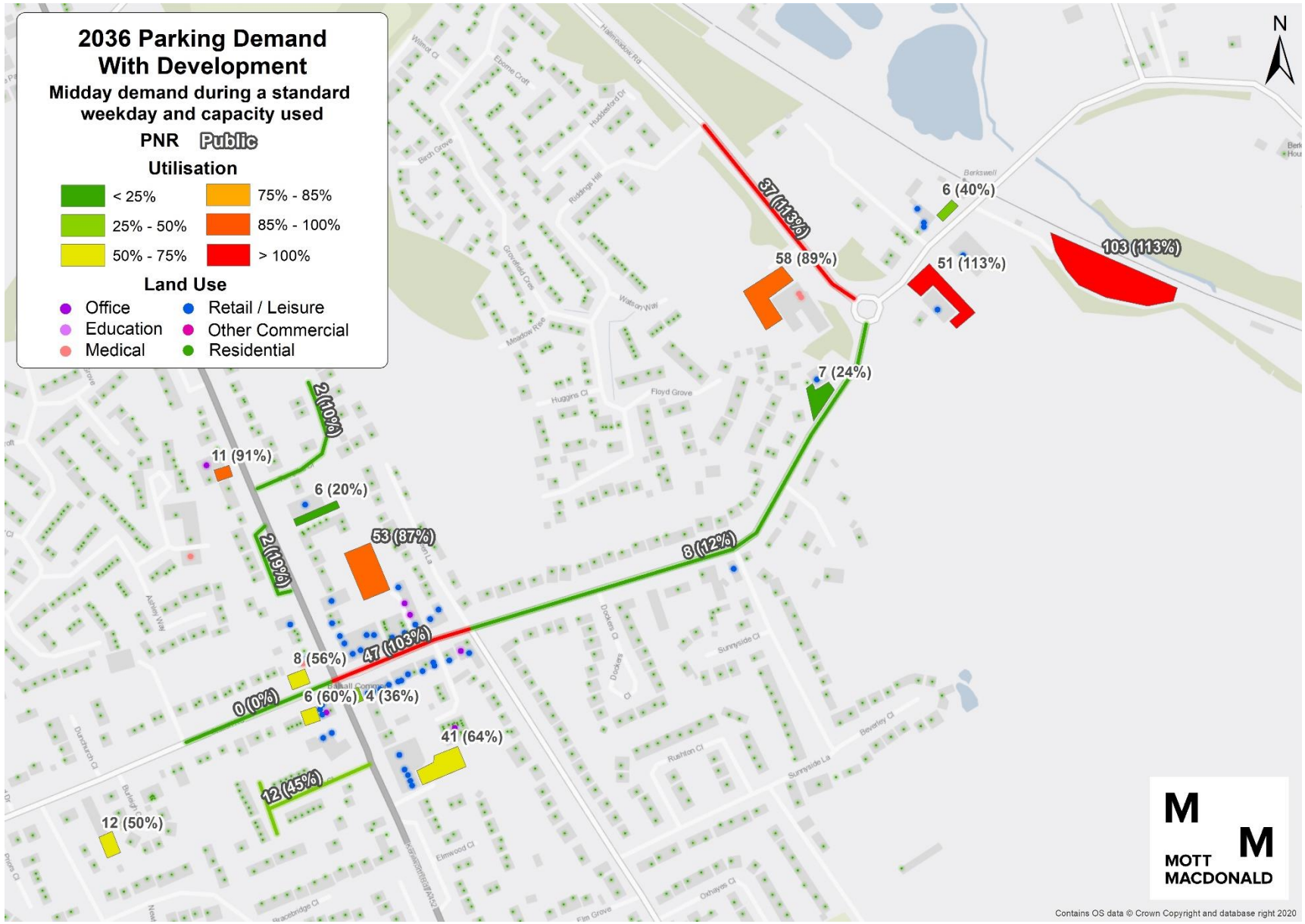
Source: 2017 Parking Survey and TEMPro Growth

Figure 4.27: Midday utilisation 2036 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 4.28: Midday utilisation 2036 with DLP



Source: 2017 Parking Survey and TEMPro Growth

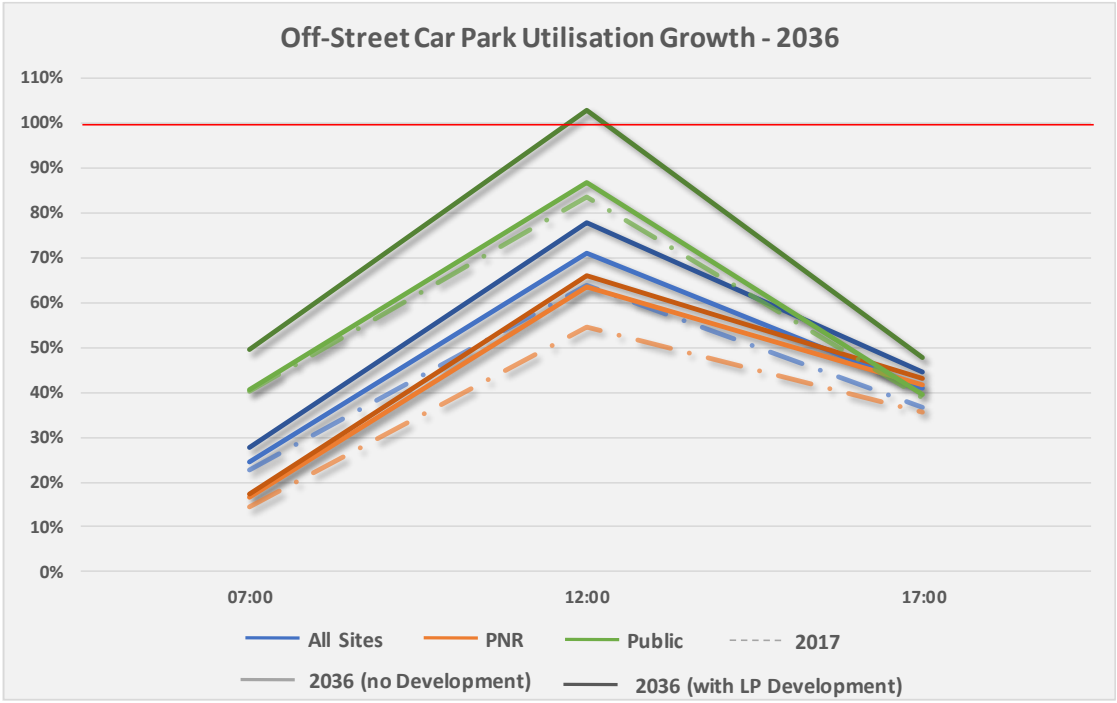
As with 2026, the main increase in demand for the village centre parking in 2036 is background traffic, with the DLP having a smaller additional impact. The DLP does have an impact though, which on top of high background growth leads to the marked on-street parking on Station Road to have a demand of 10 cars higher than the number of spaces. The Library Car Park is also expected to have a significant increase, rising to 89% capacity at its peak.

The largest DLP impact is forecast to be around the station, with the station car park having a demand of 103 vehicles, which is 12 more than its capacity of 91. The other parking around the station also has demand higher than supply, both on Hallmeadow Road and at The Royal British legion. This is during the same time period, with all car parks being over capacity at midday.

4.7.3.1 Off-street 2036 forecast demand

The following graph shows the overall forecast utilisation in 2036 with and without DLP growth for off-street parking.

Figure 4.29: 2036 forecast off-street parking utilisation

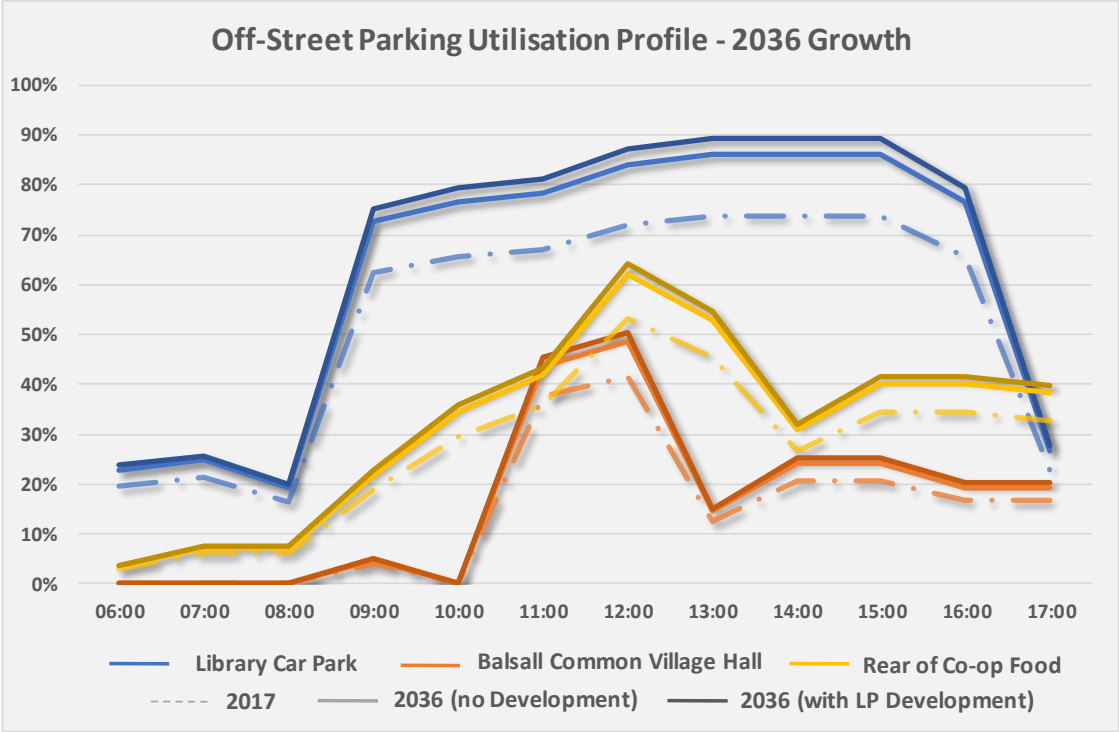


Source: 2017 Parking Survey and TEMPro Growth

This shows that in total, all off-street public parking in Balsall Common is over absolute capacity in 2036 and this is caused primarily by the DLP.

Figure 4.30 shows the forecast utilisation throughout the day at the Library Car Park, Village Hall and Co-op in 2036 with and without DLP growth.

Figure 4.30: Off-street parking profile 2036



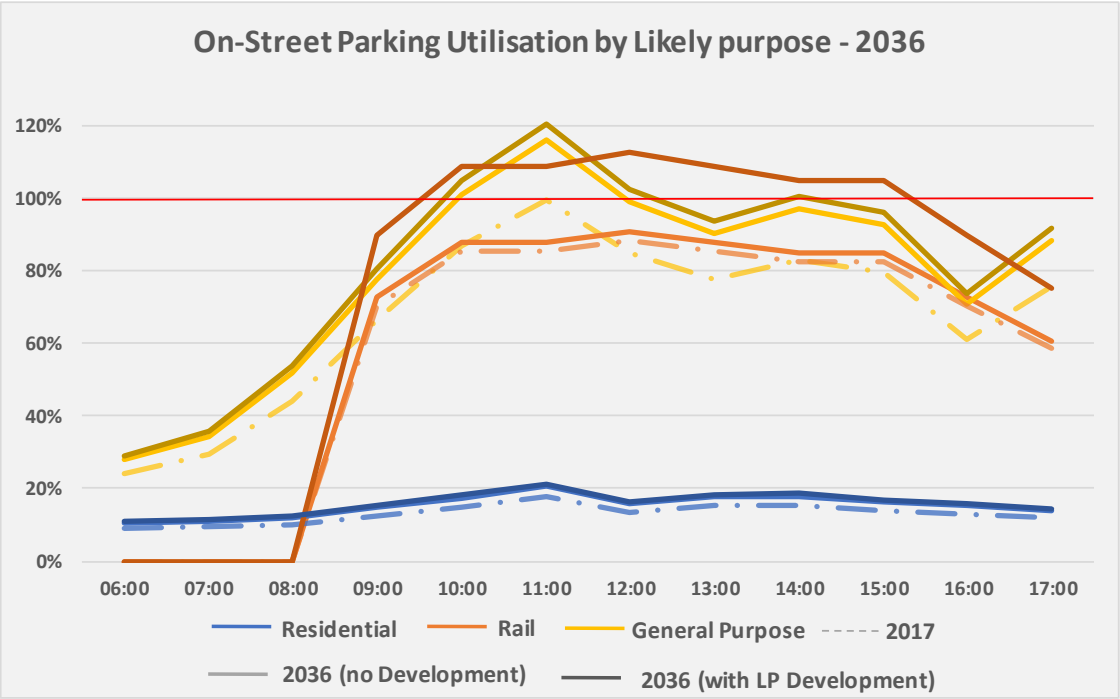
Source: 2017 Parking Survey and TEMPro Growth

This shows that the DLP is having an impact on the Library Car Park and that it is forecast to reach 90% capacity at 15:00. It is also forecast to be above 85% between 12:00 and 15:00 in 2036 with DLP growth.

4.7.3.2 On-street 2036 forecast demand

Figure 4.31 shows the forecast 2036 growth for on-street parking by likely purpose.

Figure 4.31: On-street parking profile by purpose 2036



Source: 2017 Parking Survey and TEMPro Growth

This shows that DLP growth is forecast to have a significant impact on the on-street parking associated with rail, putting Hallmeadow Road over absolute capacity. The general-purpose parking is forecast to reach 120% demand, mainly caused by background growth but with the DLP still having an impact.

4.7.4 Summary

TEMPro factors, taking into account the DLP households, have been used to factor up the 2017 survey data to 2026 and 2036. 'Attraction' factors have been applied to the majority of car parks, with Rail / Underground 'Production' factors being applied to rail car parking.

Table 4.4 provides a summary for each parking location, showing the demand at the peak time throughout the day. This is for 2017, 2026 and 2036.

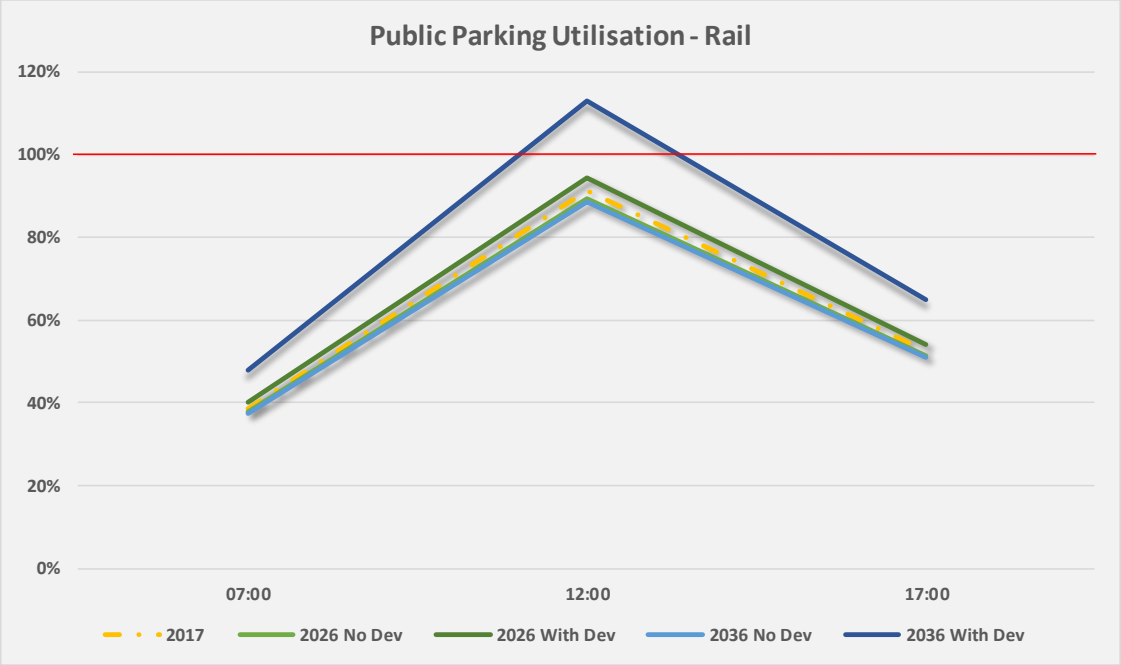
Table 4.4: Balsall Common peak demand in 2017, 2026 and 2036

				Demand (at peak)					Available Spaces (at peak)				
					2026		2036			2026		2036	
No.	Location	Capacity	Peak Time	2017	Base	DLP	Base	DLP	2017	Base	DLP	Base	DLP
Off-Street Parking													
1	322/24 Kenilworth Road	12	12:00*	9	10	10	11	11	3	2	2	1	1
2	Haigs Hotel and Restaurant	30	17:00*	12	13	13	14	15	18	17	17	16	15
3	Library Car Park	61	13:00	45	49	49	53	54	16	12	12	8	7
4	Balsall Common Village Hall	24	12:00	10	11	11	12	12	14	13	13	12	12
5	Balsall Common Dental Practice	15	12:00*	7	8	8	8	8	8	7	7	7	7
7	Atkinson Stilgoe- Station Road and A452	10	12:00*	5	5	5	6	6	5	5	5	4	4
8	Barclays Bank-Station Road/A452	10	07:00*	3	3	3	4	4	7	7	7	6	6
9	Rear of Co-op Food	64	12:00	34	37	37	40	41	30	27	27	24	23
10	The Railway Inn	15	17:00*	14	15	15	16	17	1	**0**	**0**	**-1**	**-2**
11	Balsall Common Health Centre	65	12:00*	48	52	53	56	58	17	13	12	9	7
12	The Brickmakers Arms Pub	30	17:00*	9	10	10	11	11	21	20	20	19	19
13	Royal British Legion	45	12:00*	42	46	46	49	51	3	**-1**	**-1**	**-4**	**-6**
14	Berkswell Train Station	91	12:00*	83	81	86	81	103	8	10	5	10	**-12**
On-Street Parking													
6a	Station Road (east of A452 Kenilworth Road)	46	11:00	46	50	50	54	56	**0**	**-4**	**-4**	**-8**	**-10**
6b	Station Road (east of Green Lane)	67	11:00	8	9	9	9	10	59	58	58	58	57
15	Hallmeadow Road	33	12:00	30	29	31	29	37	3	4	2	4	**-4**
23	Arden Close	27	11:00	13	14	14	15	16	14	13	13	12	11
24	Station Road (west of A452 Kenilworth Road)	22	10:00	3	3	3	4	4	19	19	19	18	18
25	Kenilworth Drive	13	11:00	3	3	3	4	4	10	10	10	9	9
26	Turnpike Close	25	09:00	3	3	3	4	4	22	22	22	21	21

* Only surveyed at 07:00, 12:00 and 17:00

In both 2026 and 2036, the area with the most significant DLP impact is by Berkswell station. Figure 4.32 shows the forecast utilisation for the public station car parks, both on-street and off-street.

Figure 4.32: Forecast public parking utilisation for rail

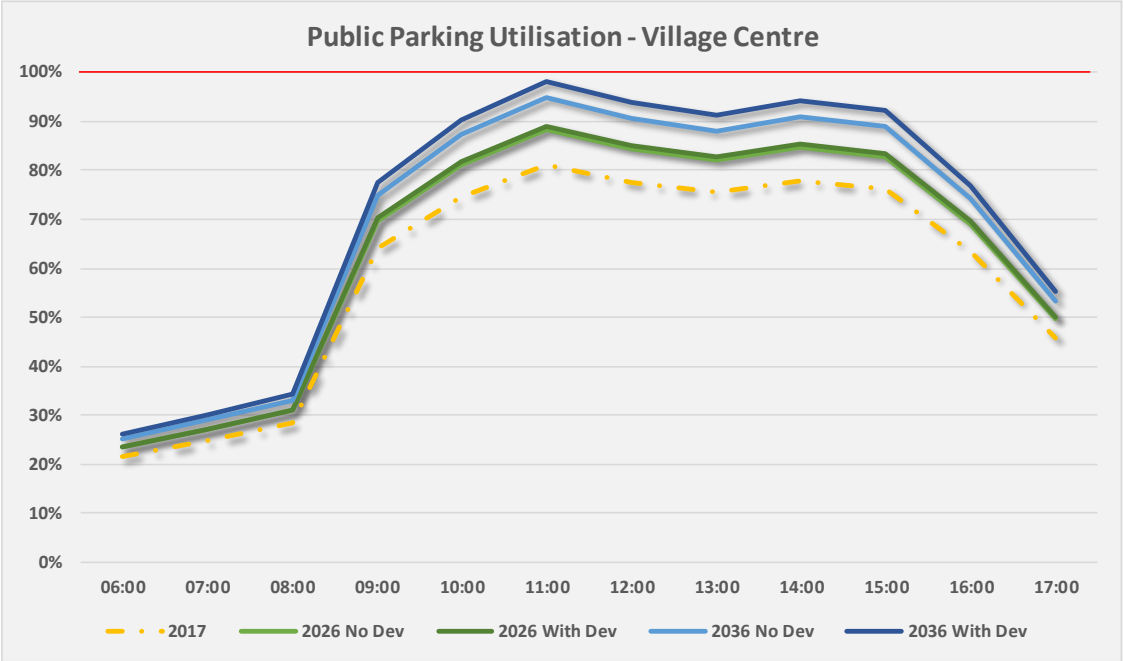


Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2036 the public parking at the station is predicted to be over absolute capacity and this is caused by DLP growth.

The other part of Balsall Common that sees high growth is in the village centre. Figure 4.33 shows the utilisation of the public parking, both on and off street, in Balsall Common village centre.

Figure 4.33: forecast public parking utilisation in Balsall village centre



Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2026 the growth is primarily background growth, with the DLP having lower additional impact. However, in 2036 DLP growth has more of an impact and the overall public parking is forecast to almost be at absolute capacity.

4.8 Mitigation

In Balsall Common there are two areas where mitigation is required. This is at Berkswell Station and in the village centre.

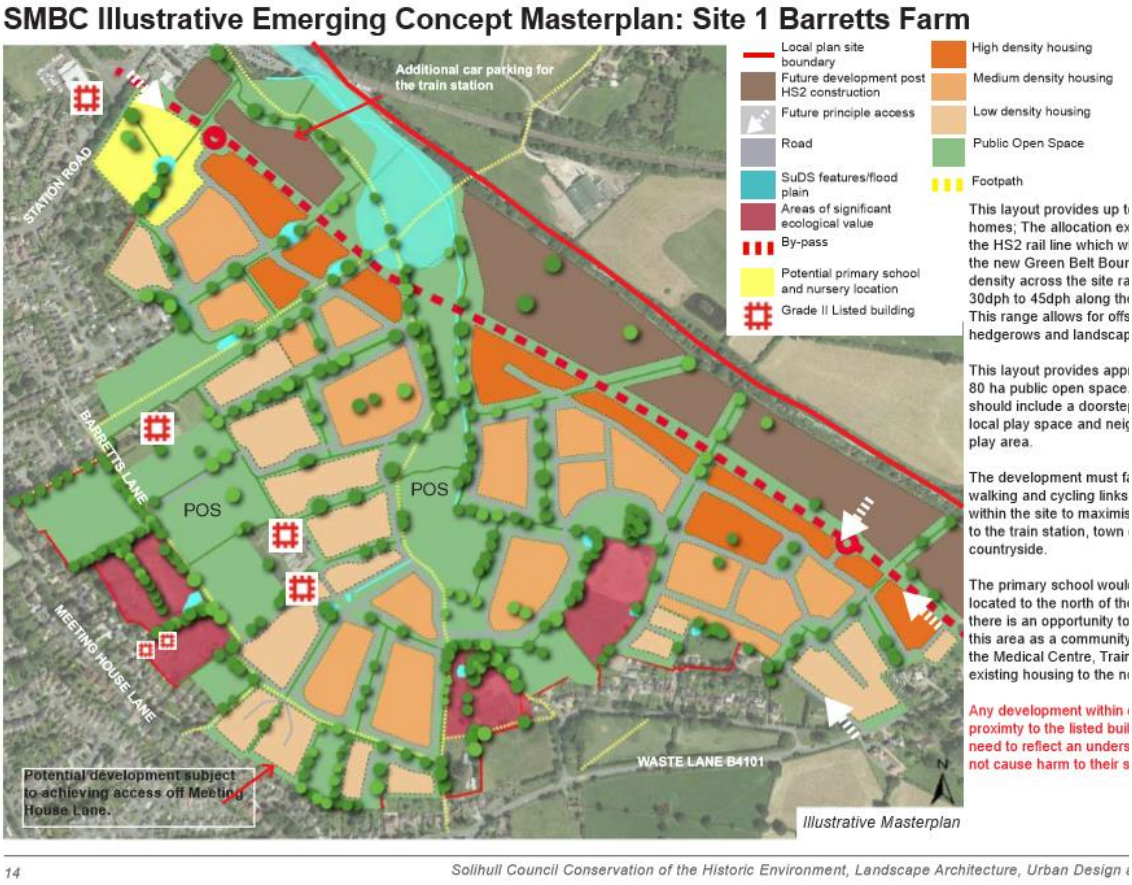
4.8.1 Berkswell Station

Figure 4.32 shows that in 2036 with DLP growth, parking at the rail station is over capacity. This figure is showing both the rail station car park and the on-street parking on Hallmeadow Road, which appears to be associated with the rail station. This does not include the parking at the Royal British Legion which, based on the 2017 surveys, is also predicted to be over 100% capacity and associated with the rail station. However, it should be noted that parking tariffs have been added to the Royal British Legion since the surveys were undertaken, so it is expected that rail station demand is now absent from this car park and future demand will not exceed capacity.

It can be seen in Figure 4.32 that the exceedance of capacity is caused by DLP development impact rather than by background growth. In order to mitigate this predicted impact, it is recommended that additional station parking is built. In the masterplan for Site 1 (Barretts Farm, shown in Figure 4.34 below), there is land allocated for this additional parking.

A bypass is also being investigated for Balsall Common, which would require all of the on-street parking on Hallmeadow Road to be removed. The masterplan for Site 1, which shows the bypass can be seen below.

Figure 4.34: DLP Site 1 Concept Masterplan



Source: SMBC

To accommodate the increased demand at the station, as well as the removal of on-street parking on Hallmeadow Road and the parking at the Royal British Legion, we recommend that the new car park should include at least 134 spaces. This is broken down as follows:

Current Spaces	91
Spaces needed to accommodate growth at current station car park	12
Spaces needed to accommodate all cars on Hallmeadow Road	37
Spaces needed to accommodate all cars at the Royal British Legion	51
Additional spaces so that the parking is at 85% capacity instead of 100%	34
Total New Spaces	**134**

If the bypass is not built and the on-street parking on Hallmeadow Road does not need to be displaced, then we recommend that the new car park should include at least 90 spaces.

The indicative cost for an additional 134 parking spaces at the station car park is £970,000. This cost should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

The indicative cost assumes that the parking is at ground level and uses the existing access. It excludes maintenance, back-office costs (such as issuing and management of permits) and any utility works or diversions.

4.8.2 Village centre

There are two public car parks in the centre of Balsall Common: the Library Car Park and the marked on-street parking on Station Road just to the east of the A452. The parking on Station Road already reached 100% capacity in the 2017 survey at 11:00. In future years, demand is predicted to increase for this area of parking. There is an off-street alternative at the library, which has lower utilisation, but still gets close to absolute capacity in future years. The forecast utilisation of the public parking in Balsall Common village centre is in Figure 4.33.

As Figure 4.33 shows, in 2036 with Local Plan development, village centre public parking is forecast to be operating very close to absolute capacity. At this level of utilisation, it is expected that the car parks will not be as effective and may cause delays and extra traffic through parking searches.

To mitigate this, we are proposing two mitigation packages, depending on if the bypass it built or not.

4.8.3 Option 1 – with bypass

If the bypass is built, then it will be accompanied by the 'downgrading' of the A452 and more land will be free for public realm improvements. Within this land, some could be used for additional on-street parking near Station Road. The placement (and number) of parking spaces will need to be complementary to the public realm improvements.

In order to get the public parking in the village centre down to 85% capacity, roughly 22 new spaces would be needed in 2036 with DLP development.

The indicative cost for the 22 on-street parking spaces is £45,000. This cost is for the road markings, TRO to allow enforcement of parking controls, design cost (on top of cost for the redesign of the A452) and parking surveys bi-monthly for one year. It does not include maintenance costs and issuing and management of permits. This cost should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

4.8.4 Option 2 – without bypass

In the 2017 survey, there were a number of vehicles parking in the library car park for over 8 hours. By implementing restrictions, either maximum stay or pay & display, this would prioritise capacity for shorter-stay retail-related trips in this central car park. This could, in turn, displace some vehicles to nearby residential streets (which were surveyed to have spare capacity), so these streets should also be monitored to see if controls to manage overspill parking impacts are needed.

The indicative cost for pay and display machines in the library car park is £62,000. This cost includes the TRO to allow enforcement of parking charges, the pay and display machines and parking surveys bi-monthly for one year. It excludes maintenance costs and issuing and management of permits. This cost should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

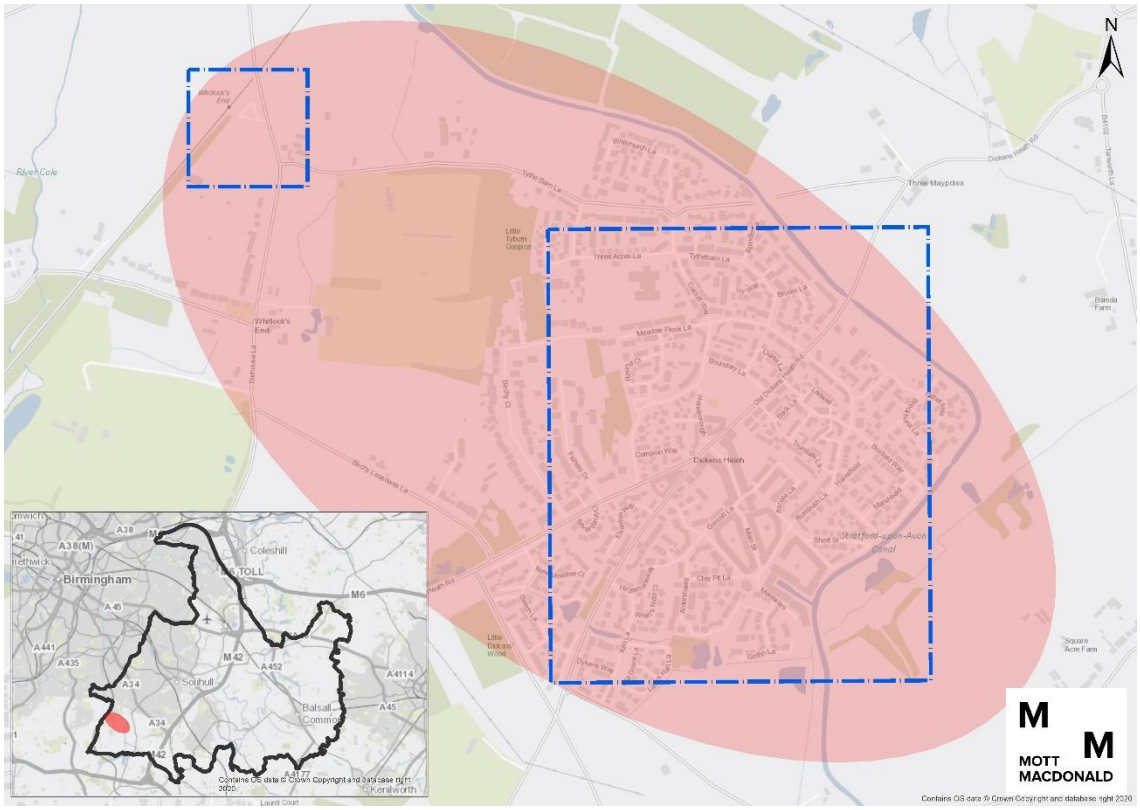
5 Dickens Heath

5.1 Introduction

Dickens Heath is a small village and civil parish of approximately 4,000 people, located close to the larger local centres of Shirley and Solihull. It is three miles south-west of Solihull and is largely residential in character. There are also several local businesses in Dickens Heath as well as a shopping and restaurant area along Main Street.

Figure 5.1 shows the Dickens Heath study area. The red area highlights the study area of the town whereas the squares on the map highlight the specific areas in which the study has been conducted. These areas were chosen through observations made on site visits and agreed by SMBC due to being deemed to have the potential for future parking capacity issues.

Figure 5.1: Dickens Heath study area



Source: Mott MacDonald

5.2 Parking overview

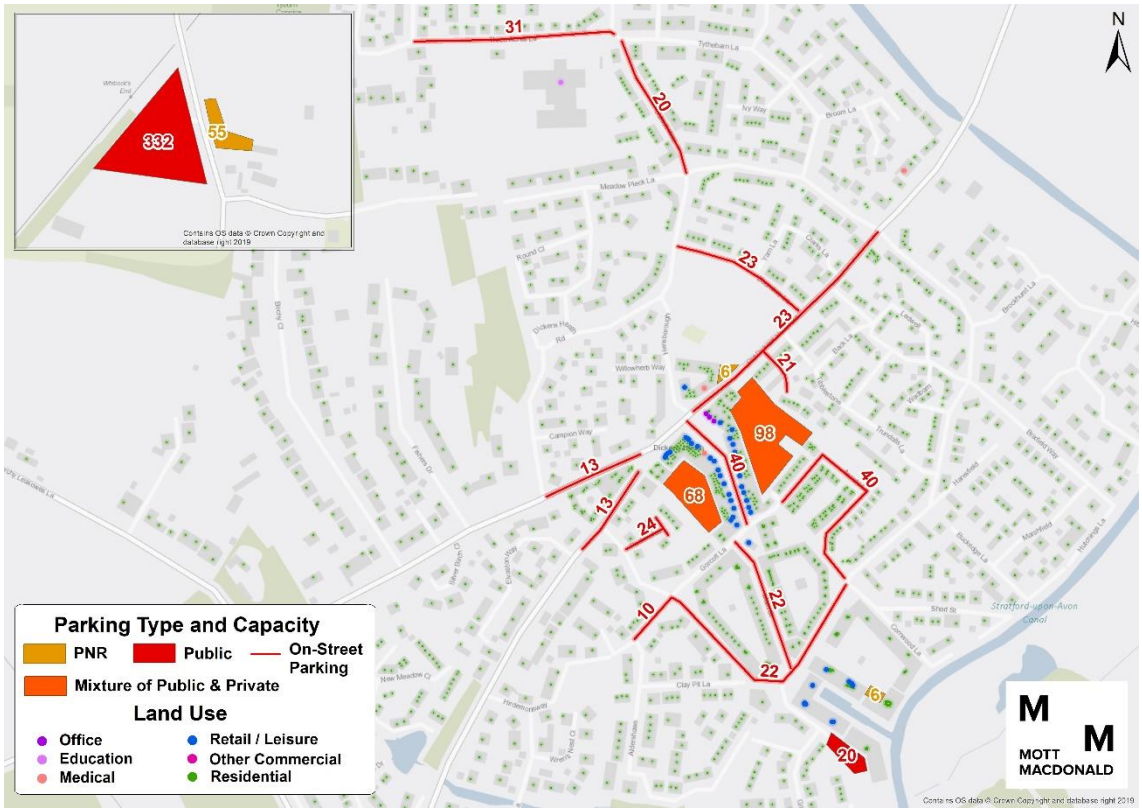
There are 22 parking areas located in Dickens Heath, which are shown in Figure 5.2. The green areas represent off-street parking and the blue lines show on-street parking. Full information for each site can be found in Appendix C.

Figure 5.2: Dickens Heath parking locations

Source: Mott MacDonald

Figure 5.3 shows the capacity of each of the parking locations along with if the parking is public or PNR. Public parking is shown in red with PNR shown in orange. Land uses have also been shown to help identify the likely purposes for each of the parking locations.

Figure 5.3: Dickens Heath parking capacity and type



Source: Mott MacDonald

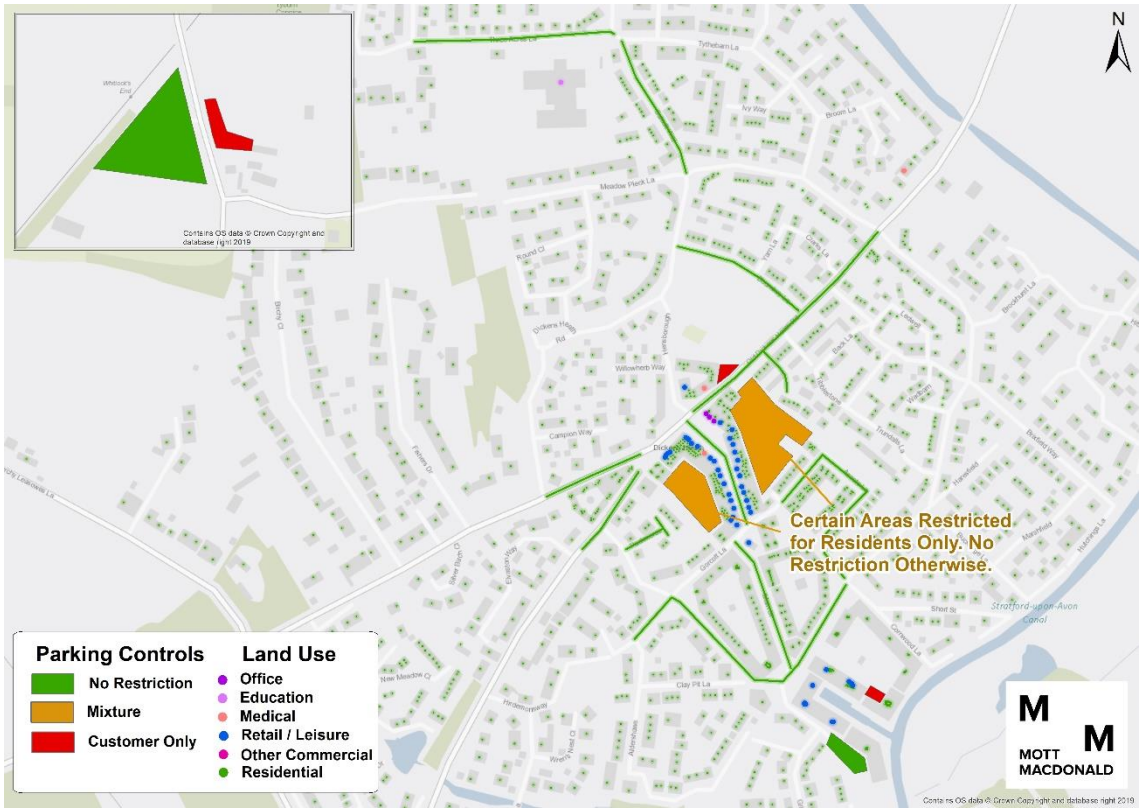
This shows that the majority of the parking in Dickens Heath is public parking. The two main off-street car parks in the village centre, Site 3 and Site 6, are a mixture of public and private. Some of the parking is restricted, but with areas of unrestricted public parking. Other than these two car parks, there are no other off-street public car parks of significant size in the centre of Dickens Heath.

The majority of the on-street parking is assumed to be for residents, with some general purpose parking on Main Street between Dickens Heath Road and Gorcott Lane.

Outside of the village centre there is a public car park at Whitlocks End Rail Station, with a capacity of 332 spaces.

Figure 5.4 shows the parking controls on each of the parking locations in Dickens Heath. This shows that there are no parking controls for the majority of the parking in Dickens Heath. There is some restricted parking in Sites 3 and 6, but the rest of these sites have no restrictions and none of the on-street parking has controls.

Figure 5.4: Dickens Heath parking controls



Source: Mott MacDonald

5.3 Alternative modes

A high-level review of the walking, cycling and public transport infrastructure in Dickens Heath has been undertaken. This is to show the alternative mode choices that could be taken to access the destinations served by the car parks.

5.3.1 Site visit

On the Mott MacDonald site visit it was noted that, in general, all footways are in good condition with numerous pedestrian crossings available. Some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- The pedestrian route along Tythe Barn Road between Whitlocks End rail station and Dickens Heath is poorly lit with narrow footways. There is a stretch of road without any footway close to the station.
- There is no pedestrian crossing between the car parking on Three Acres Lane and Dickens Heath Community Primary School. Parked cars may obstruct pedestrians, causing a safety risk.
- The underpass between the car park, behind Mortons Kitchen and Main Street, is dark with inadequate lighting.
- Main Street is very busy with cars parked along its whole length in undesignated spaces on the east side. Due to the width and aesthetics of the road, vehicles are parking on pedestrian facilities causing potential obstructions.
- There are no pedestrian footways on Old Dickens Heath Road beyond the bollards.

5.3.2 Walking and cycling routes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Dickens Heath. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on. This is due to the nature of the roads being quiet and residential in character with a low number of vehicular movements. These routes are shown in Figure 5.5 along with potential walking routes.

Figure 5.5: Dickens Heath Cycling & Walking Network

Source: www.solihull.gov.uk/Portals/0/LeisureParksEvents/Cycling_and_Walking_foldout_map.pdf

In Dickens Heath, there are various advisory routes as well as two shared use routes on Tythe Barn Lane and Dickens Heath Road. According to SMBC, Dickens Heath has a cycle-friendly environment in parts, although there is a distinct lack of advisory routes in the centre of the village. Despite this, the local centre is a low speed environment and cycling could be encouraged as a mode of transport using these roads. Dickens Heath certainly has the potential

to encourage more active travel from local residents as a whole, including walking, cycling, and scooting due to its size.

5.3.3 Bus routes

The A4 bus service travels between Solihull and Wythall via Dickens Heath.

5.4 Consultation

5.4.1 Questionnaire

A 15-point questionnaire was produced with the overarching aim of understanding business owners' views on the current parking provision in each district and how it affects their business. Details can be found in Section 3.2.1 with the questionnaire in Appendix B.

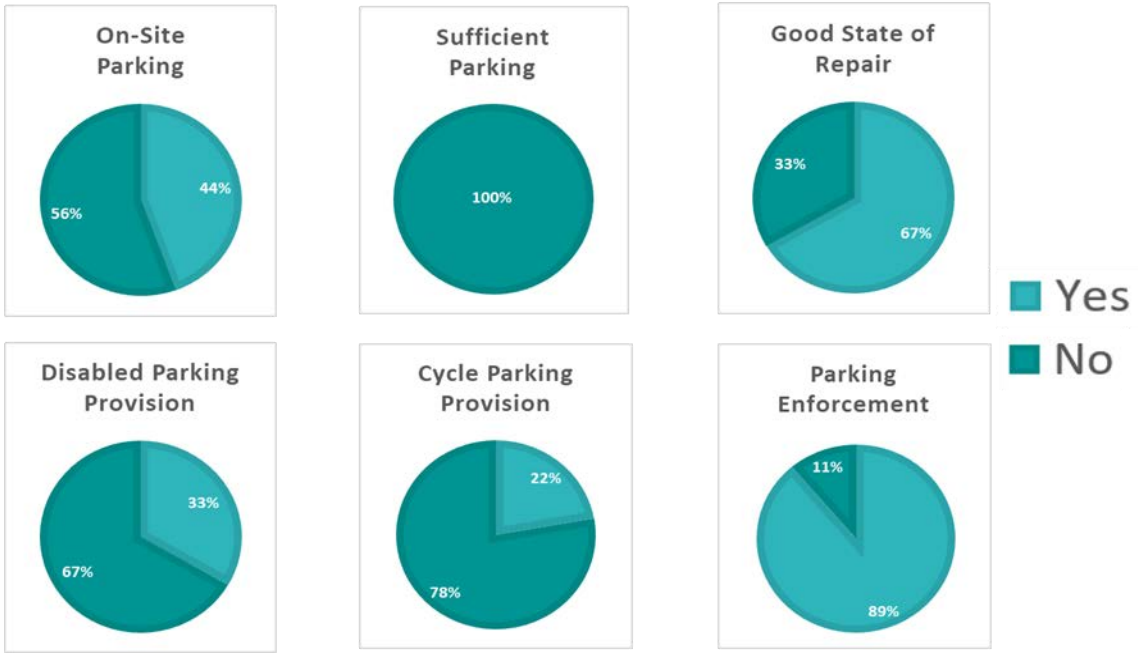
5.4.2 Business comments

Within Dickens Heath, nine of the businesses which were consulted responded to our questionnaire, yielding similar trends to Balsall Common. Five businesses rely on public parking for staff and customers whilst four have on-site parking available. The businesses with private parking have capacity issues and depend on public parking.

Six of the nine respondents answered that the current parking is in a good condition yet there is not sufficient disabled parking available. Seven businesses stated there is not enough parking for cyclists. All the respondents stated there is not enough parking provided and of these, eight rated existing parking provision to be either a minor or major hindrance to their business.

Similar comments were made by several businesses in Dickens Heath, particularly that there are no restrictions on private streets (Main Street etc). They also commented that due to the newly built town centre residential developments, there are not enough public spaces and some residents make use of the public spaces.

Figure 5.6: Selected results from Dickens Heath business consultations



Source: Mott MacDonald

5.5 Existing parking demand

5.5.1 Introduction

This section outlines the existing levels of demand based upon surveys undertaken by survey specialists Tracsis Plc in 2017. As part of updating the analysis in 2020, surveys were going to be undertaken on a Saturday and on a neutral weekday at any locations where tariffs had changed. However, due to Covid-19 these surveys were not able to take place.

5.5.2 Survey details

Details on the surveys can be found in Section 3.2.2.

In Dickens Heath the following car parks were not surveyed:

- Doctors Practice (6 spaces)
- Shirley Football Club (55 spaces)
- Behind Customs House (16 spaces)
- Waterside Heights (20 spaces)

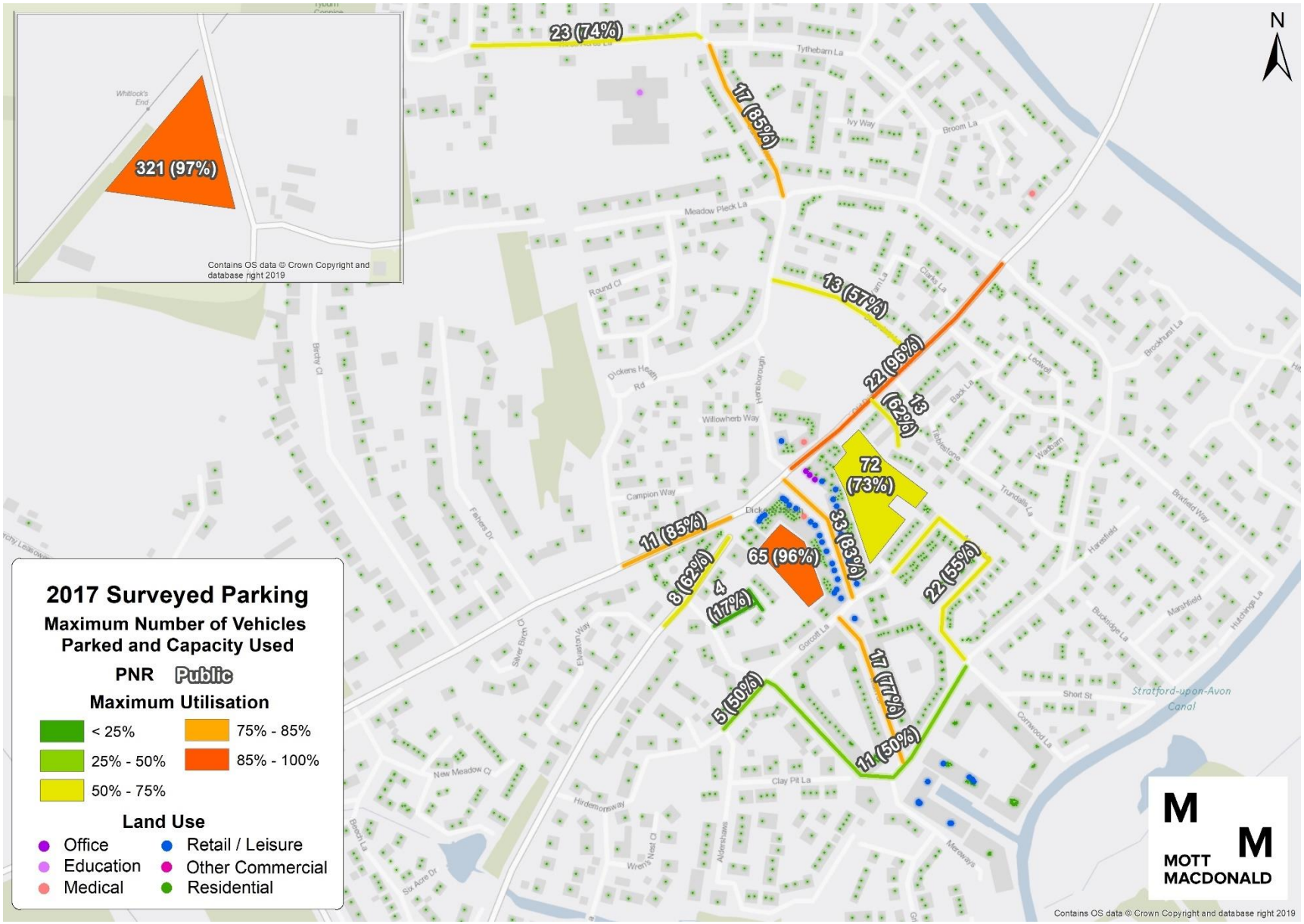
These car parks were not surveyed for differing reasons. The Doctor's Practice was not surveyed due to its small size and the fact it is likely to only be used by patients, whilst Shirley Football Club was not surveyed due to its poor condition making it less likely for station commuters to use it in the same way as Whitlocks End station car park. The car parks at Customs House and Waterside Heights are private car parks and are also wholly utilised by employees of local businesses, so do not fit the profile of the other car parks within the study.

5.5.3 Existing demand

Figure 5.7 below shows the maximum utilisation surveyed in 2017 for each parking location. This is at any point during the day and it should be noted that many car parks are at their maximum peaks at different times.

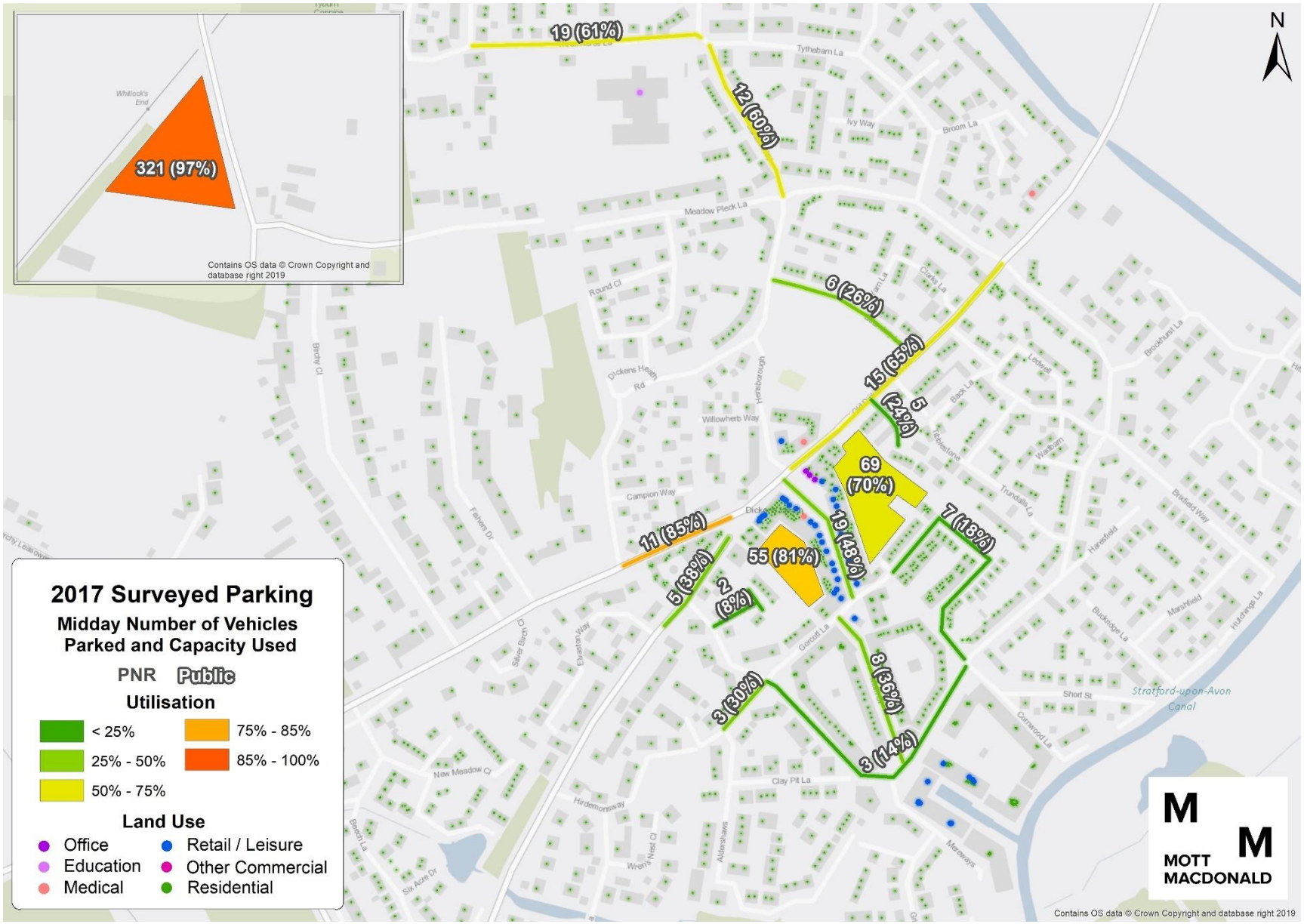
Whilst some sites were surveyed each hour between 06:00 and 18:00, some sites were surveyed at three points in the day, at 07:00, 12:00 and 17:00. The peak hour out of the three times surveyed across all car parks was at 12:00. Figure 5.8 shows the utilisation at each of the car parks at 12:00.

Figure 5.7: Dickens Heath 2017 maximum utilisation



Source: 2017 Parking Survey

Figure 5.8: Dickens Heath 2017 utilisation at 12:00



Source: 2017 Parking Survey

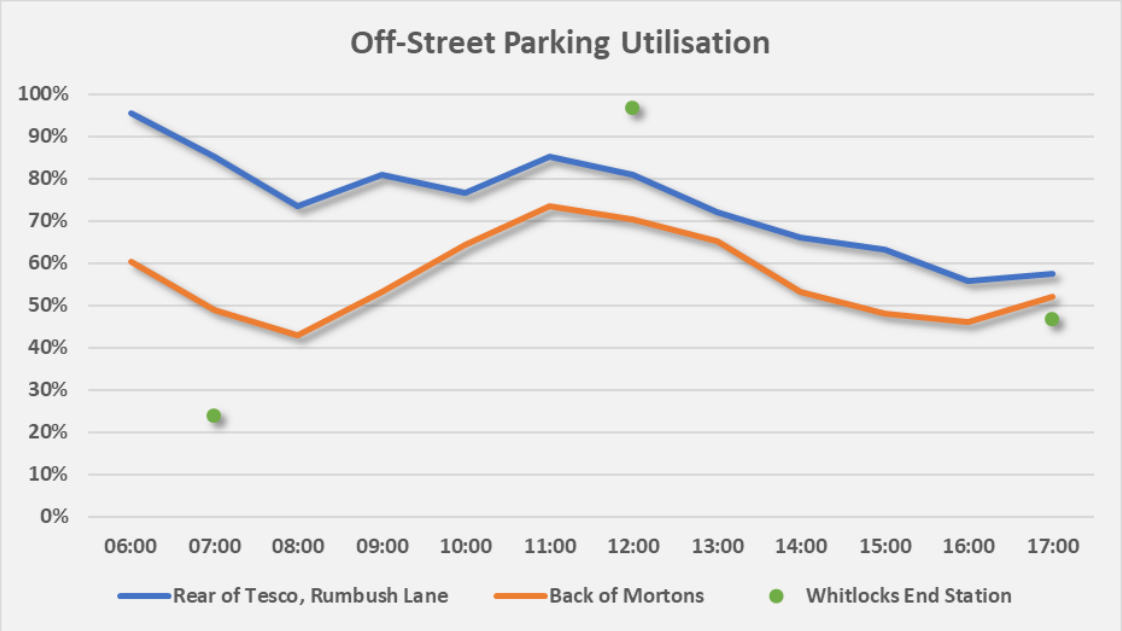
These figures show that the parking at Whitlocks End Rail Station is almost at absolute capacity, with 321 of its 332 spaces occupied at 12:00 in 2017.

Some areas of the village centre were surveyed to be close to capacity; most notably Site 3 (at the back of the Tesco Express) and Old Dicken Heath Road which both reach 96% capacity. However, as Figure 5.8 shows, at midday these parking locations are not as close to capacity and the majority of the on-street residential parking has spare capacity.

5.5.3.1 Off-street parking

The following figure shows the utilisation at each of the surveyed off-street car parks. Site 3 (Rear of Tesco) and Site 6 (Back of Mortons) were surveyed each hour over a 12-hour period, whereas Whitlocks End Station was just surveyed at 07:00, 12:00 and 17:00. The profiles throughout the day have been shows for Site 3 (in blue) and Site 6 (in orange), with the surveyed utilisation at the three points in the day shown for Whitlocks End (in green).

Figure 5.9: Dickens Heath off-street car park utilisation



Source: 2017 Parking Survey

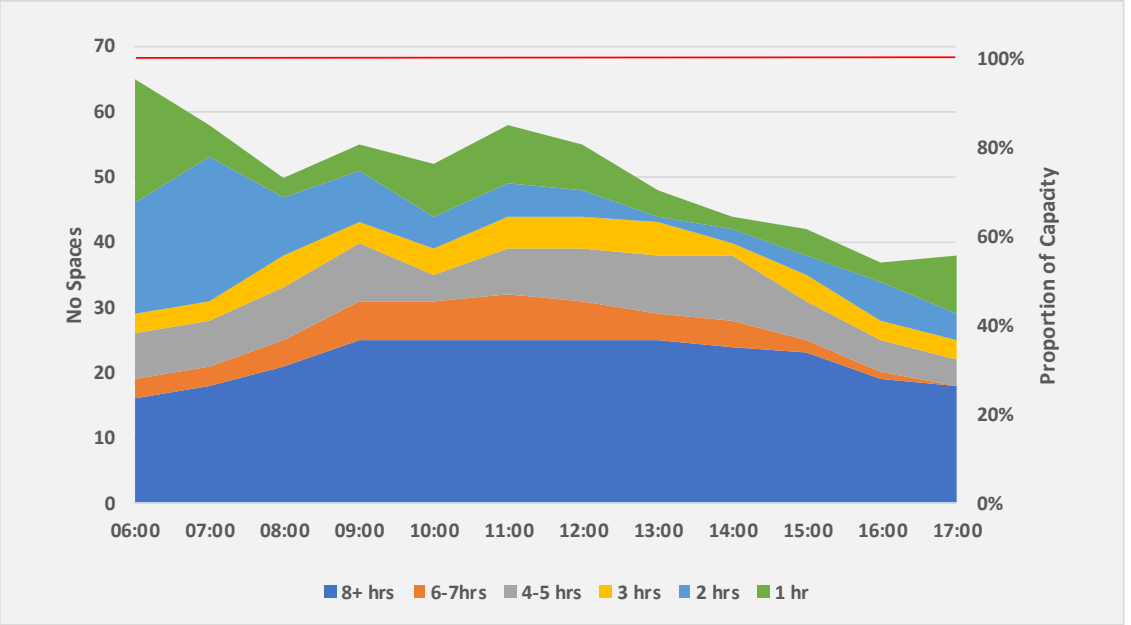
This shows that the off-street car park at the rear of Tesco (Site 3) is at its maximum utilisation at 06:00 and then generally decreases throughout the day, with a slight increase from 08:00 to 11:00. Therefore, it is likely that this car park is mainly used for residential parking at its peak due to this being at 06:00. It should be noted that since some spaces have restricted access, the spaces open to the public could be close to absolute capacity at 11:00 even if the total for the whole car park is not.

It is likely that the car park at the rear of Mortons (Site 6) has a high number of residents parking over-night, with the car park being at 60% capacity at 06:00, with it then decreasing towards 08:00. Site 6 has its peak at 11:00 however, so this is less likely to be caused by residential parking. As with Site 3, some of the parking has restricted access, so at 11:00 the public spaces may be at absolute capacity even if the car park as a whole is not.

As noted above, Whitlocks End is almost at absolute capacity, at 97% utilisation. This is likely to be causing delays through parking searches.

Figure 5.10 below shows how the spaces in Site 3 are used by vehicles with different lengths of stay.

Figure 5.10: Site 3 (rear of Tesco) utilisation by length of stay

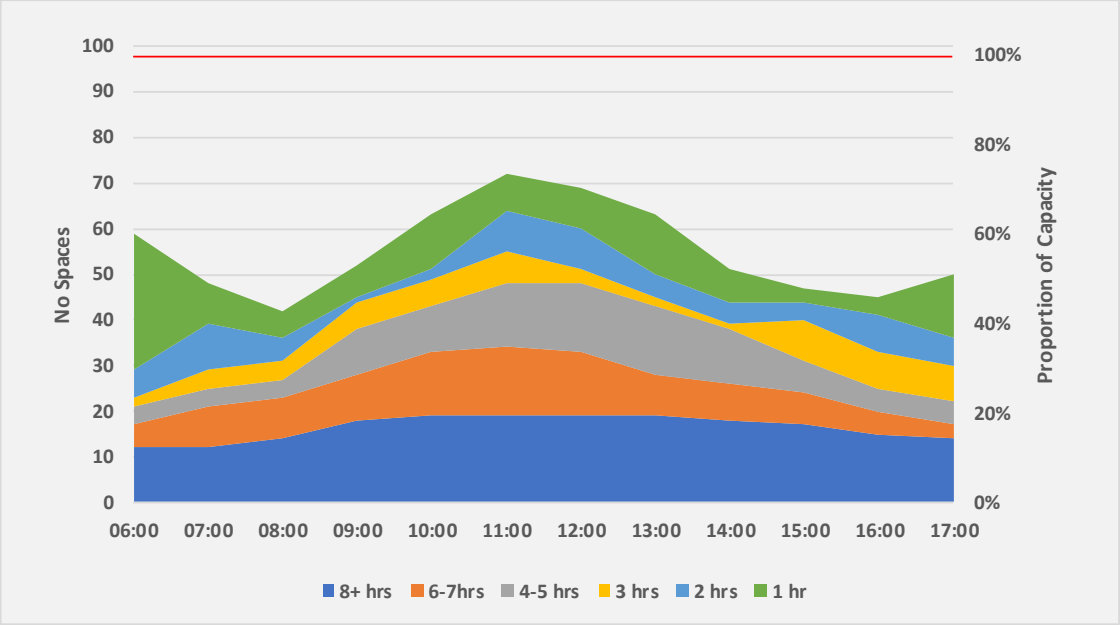


Source: 2017 Parking Survey

This shows that between 09:00 and 15:00, around 35% of the spaces are used by cars staying eight hours or over. Throughout the day the number of spaces used by cars staying over eight hours is always above 25%. There are fewer short stay trips, the most one-hour trips being at 06:00 (although this is likely caused by residents leaving the car park at the start of the survey period) and around midday.

Figure 5.11 shows how the spaces in Site 6 are used by length of stay.

Figure 5.11: Site 6 (rear of Mortons) utilisation by length of stay



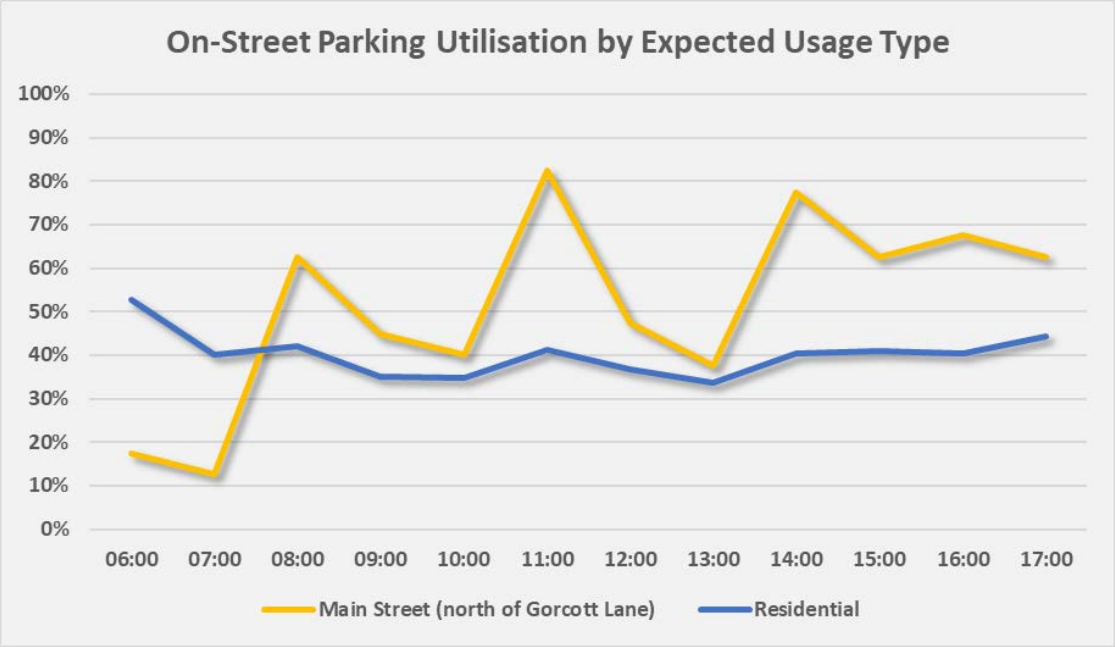
Source: 2017 Parking Survey

This shows that Site 6 has a lower proportion of spaces occupied by vehicles staying eight hours or longer. The car park has a range of durations that vehicles stay and is therefore likely used for different purposes.

5.5.3.2 On-street parking

All the on-street parking was surveyed each hour over a 12-hour period. The profiles for the utilisation of Main Street (to the north of Gorcott Lane) is shown with the combination of all other roads which are assumed to be residential in nature.

Figure 5.12: On-street parking daily profile

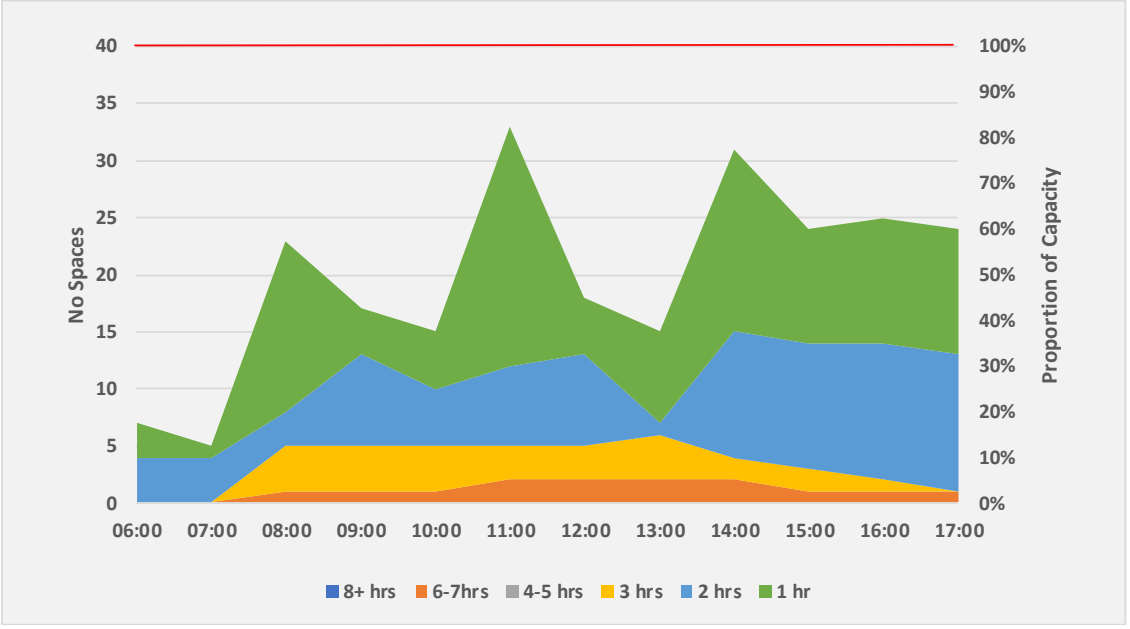


Source: 2017 Parking Survey

This shows that the utilisation of Main Street fluctuates during the day, with the peak at 11:00. The residential on-street parking is at its peak at 06:00 followed by 17:00, most likely caused by residents parking overnight and leaving during the day. However, the parking is still at 40% utilisation at 11:00. This shows that during the day there is still a lot of capacity on the residential streets.

Figure 5.13 shows the length of stay for vehicles using Main Street (north of Gorcott Lane).

Figure 5.13: Main Street utilisation by length of stay



Source: 2017 Parking Survey

The figure shows that the majority of vehicles parking on Main Street are staying for two hours or less. The main peaks are primarily caused by vehicles staying for one hour or less, but there are also vehicles parked on Main Street for between six and seven hours.

5.5.4 Summary

Survey data from 2017 was used to determine the current parking demand in Dickens Heath due to new surveys being unable to take place due to Covid-19.

The area that sees the highest utilisation in Dickens Heath is at Whitlocks End Rail Station, which is almost at absolute capacity. At midday 321 of its 332 spaces are occupied, which is likely to be causing delay from parking searches.

In the village centre, Site 3 is at 96% capacity at 06:00 and then decreases in utilisation throughout the day; though it is at 85% capacity at 11:00. Between 09:00 and 15:00, around 35% of the spaces are used by cars staying eight hours or over. Throughout the day the number of spaces used by cars staying over eight hours is always above 25%.

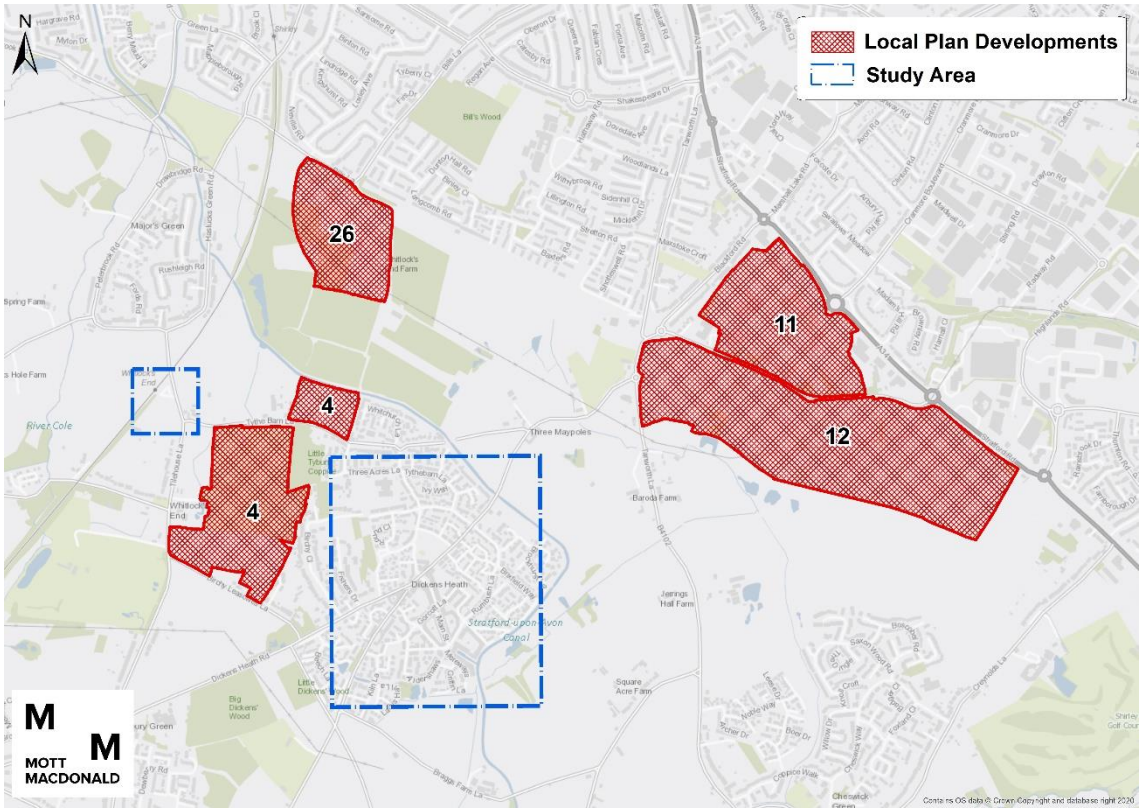
Site 6, also in the village centre, is at its peak utilisation of 73% at 11:00, followed by lower peaks at 06:00 and 17:00. The car park is used by vehicles staying for varied amounts of time.

The residential on-street parking has spare capacity throughout the day. The utilisation of Main Street (north of Gorcott Lane) fluctuates during the day, with the peak at 11:00. The majority of vehicles parked on Main Street are staying for two hours or less. The main peaks are primarily caused by vehicles staying for one hour or less, but there are also vehicles parked on Main Street for between six and seven hours.

5.6 Local Plan growth

Around Dickens Heath there are four proposed DLP developments, which are shown in Figure 5.14 below.

Figure 5.14: Dickens Heath DLP developments



Source: SMBC

The build-out projection for each site in 2026 and 2036 is shown below.

Table 5.1: Dickens Heath DLP development projection

Site number	No. of dwellings	Built by 2026	Built by 2036
4	350	100	350
11	640	640	640
12	1000	250	1000
26	450	100	450
Total	**2440**	**1090**	**2340**

This shows that whilst the majority of dwellings will be built by 2036, there is still planned to be a significant number of dwellings built by 2026. DLP Site 4 is located next to Whitlocks End Station, which is already at capacity. Site 4 is also the closest to Dickens Heath, with the other developments also close to Shirley Heath.

It should be noted that in the SMBC Draft Submission Plan, site 26 is forecast to have 300 dwellings. However, for this study it was agreed with SMBC that 450 dwellings would be assessed as this is the upper limit for the site.

5.7 Future parking demand

5.7.1 Methodology

In order to determine future parking demand in each of the areas, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro). The method for calculating this trip rate is set out in Section 3.3.

For Dickens Heath the MSOA of Solihull 029 has been selected. This MSOA also covers the Cheswick Green and Hockley Heath areas, as well as Blyth Valley Business Park. However, due to MSOAs being the smallest area selectable in TEMPro, it has been assumed for this study that the growth is equal across the MSOA.

The following growth factors have been derived for Dickens Heath:

Table 5.2: Dickens Heath TEMPro Growth Factors

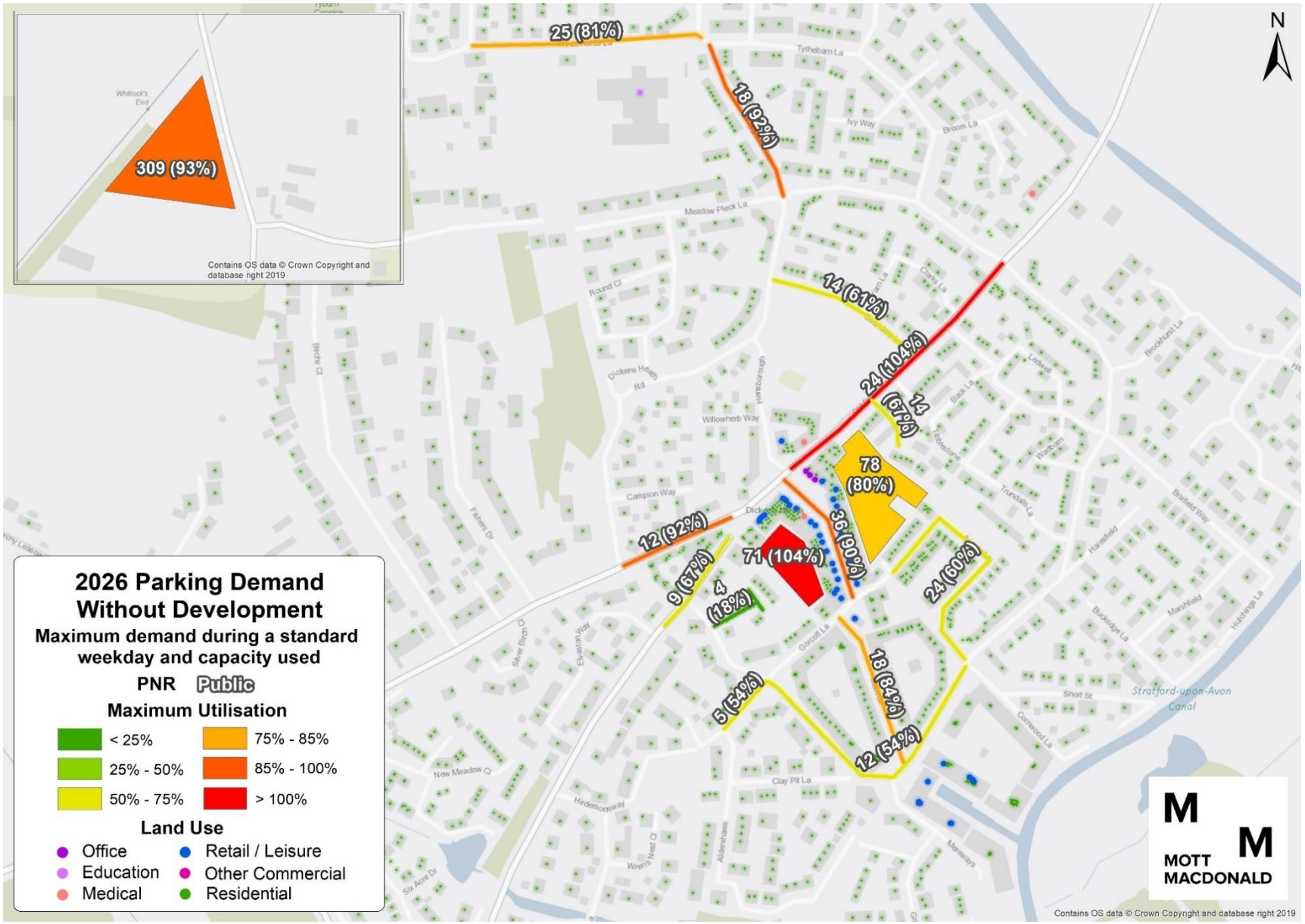
Average weekday	Car driver attraction		Rail / underground production	
	No DLP	With DLP	No DLP	With DLP
2026	1.086	1.094	0.963	1.040
2036	1.167	1.201	0.942	1.238

5.7.2 2026 forecast demand

The growth factors shown in Table 5.2 have been applied to the surveyed demand, with the 2026 without DLP maximum occupancy results show in Figure 5.15 and the equivalent 2026 with DLP results shown in Figure 5.16.

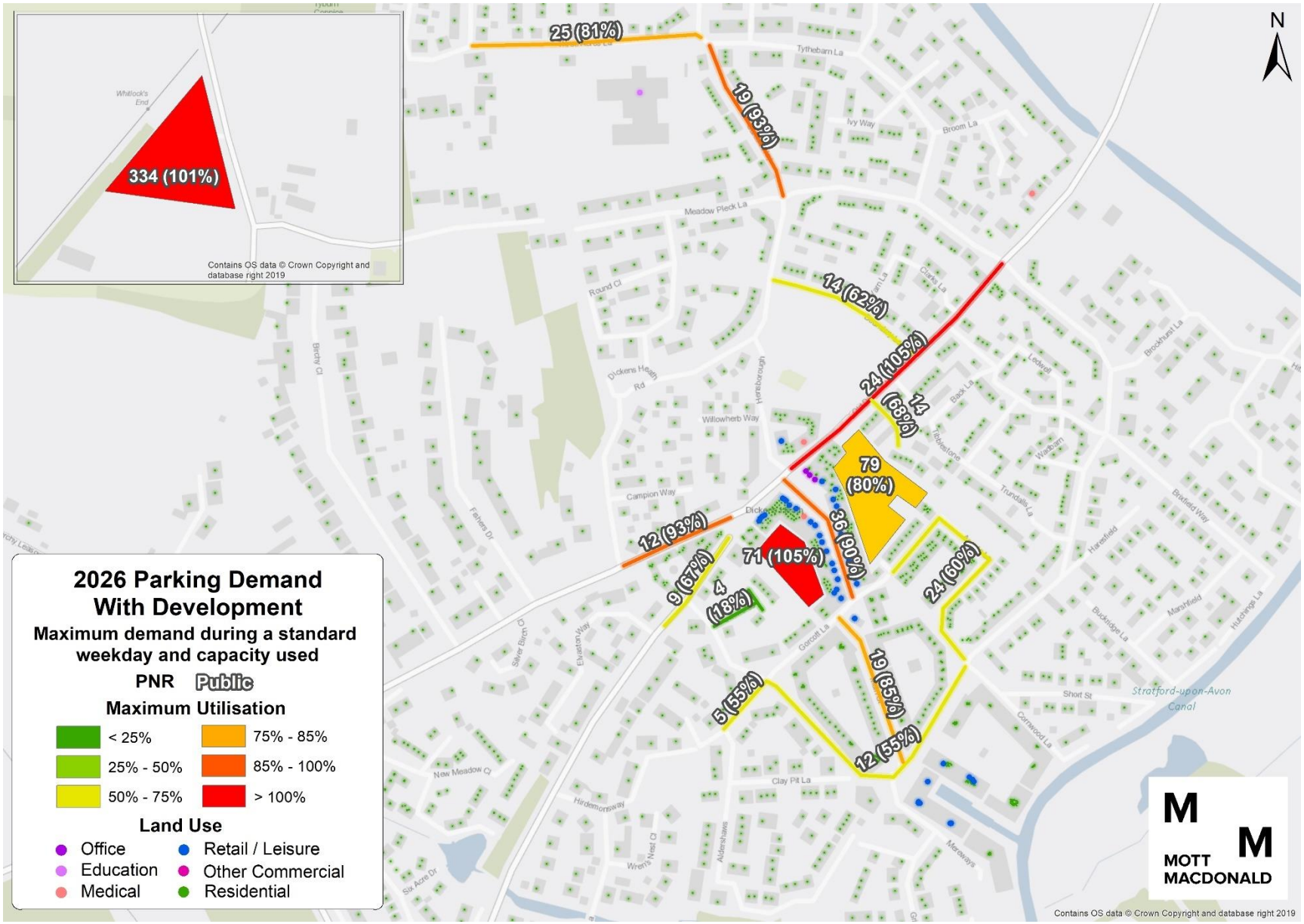
As with the base data, the capacity of the car parks at 12:00 has also been presented to show a snapshot at the peak time over the surveyed locations. The 2026 without and with DLP are shown in Figure 5.17 and Figure 5.18 respectively.

Figure 5.15: Maximum utilisation 2026 without DLP



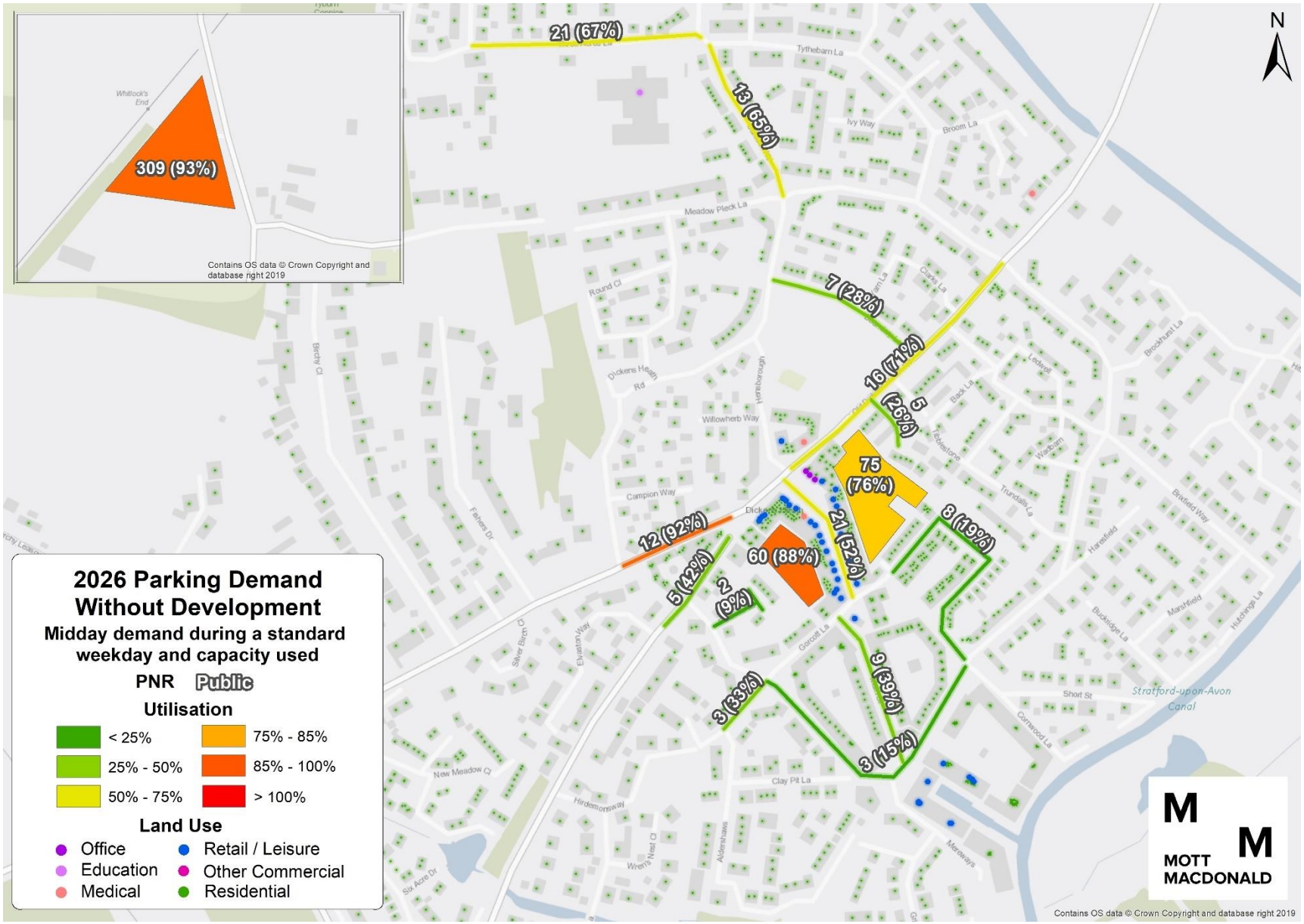
Source: 2017 Parking Survey and TEMPro Growth

Figure 5.16: Maximum utilisation 2026 with DLP



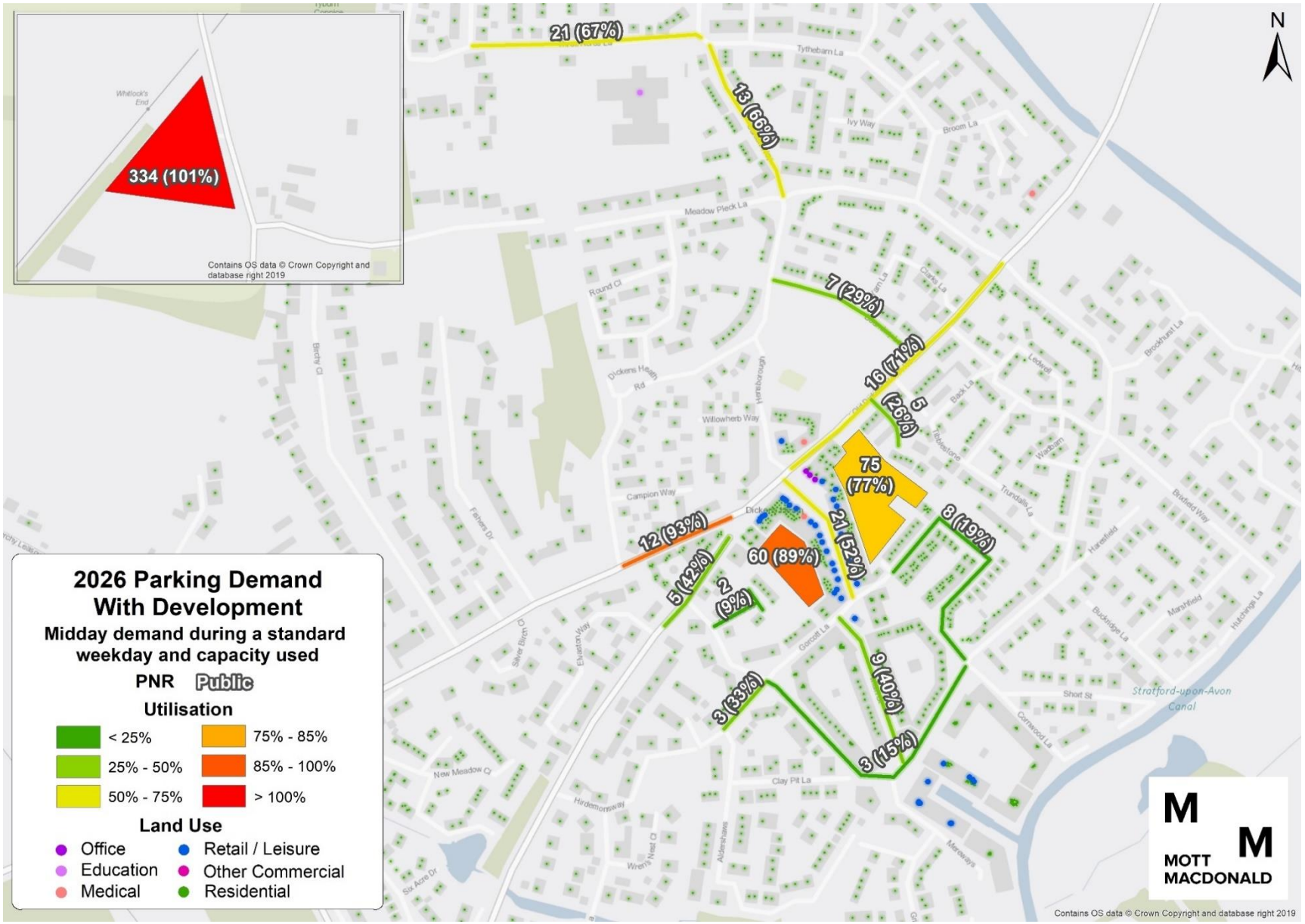
Source: 2017 Parking Survey and TEMPro Growth

Figure 5.17: Midday utilisation 2026 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 5.18: Midday utilisation 2026 with DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 5.15 shows that, in 2026 without the DLP, demand exceeds supply at Site 3 and on Old Dickens Heath Road. However, at the peak times for these two locations there is spare capacity on nearby roads or car parks that can accommodate this growth. At midday in 2026 without the DLP (shown in Figure 5.17), none of the sites reach absolute capacity and there is spare capacity on many of the residential streets as well as on Main Street.

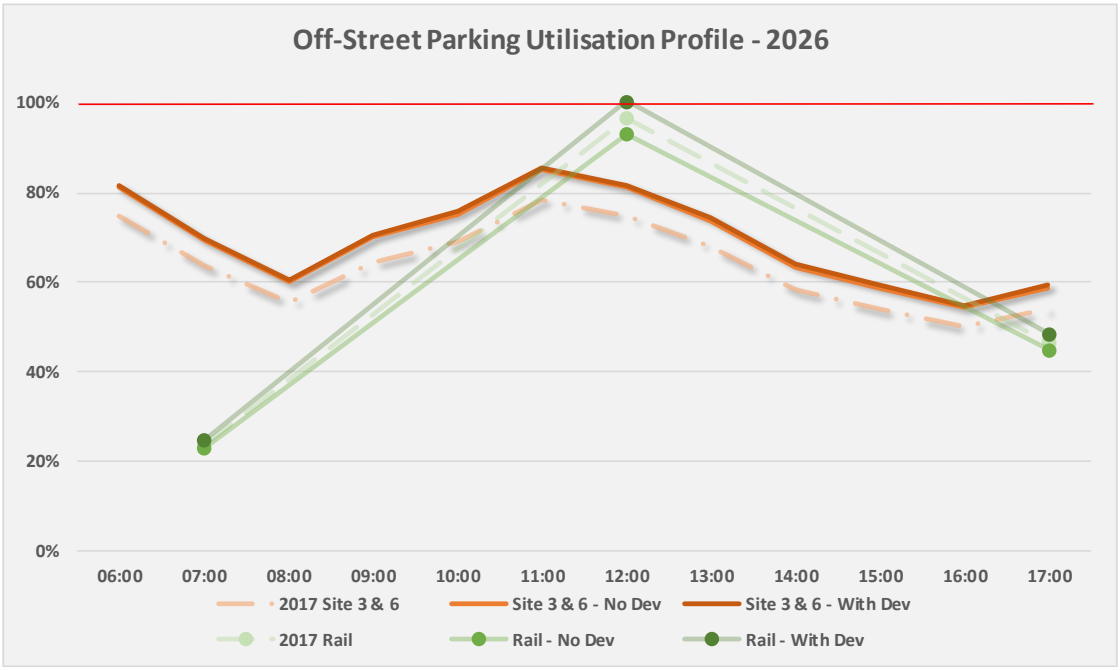
The DLP growth has a minor additional impact in the village centre, as shown by Figure 5.16 and Figure 5.18. However, the DLP growth has a significant impact on Whitlocks End Station Car Park, with demand exceeding capacity.

The forecast demand on Old Dickens Heath Road is higher than the current capacity, but since there is spare capacity nearby, and due to the residential nature of the road, this is not expected to cause significant congestion. Main Street is forecast to reach 90% capacity, alongside Site 3 being over absolute capacity, which may result in delays in the village centre due to parking searches.

5.7.2.1 Off-street 2026 forecast demand

The following graph shows the forecast utilisation in 2026 with and without DLP growth for off-street parking. The station car park was only surveyed at 07:00, 12:00 and 17:00, so has just been shown at three points on the graph. The other off-street parking locations are Site 3 and Site 6 in the village centre, which were surveyed each hour over a 12-hour period. These two sites have been combined to give an overall figure for off-street parking in the village centre.

Figure 5.19: 2026 forecast off-street parking utilisation



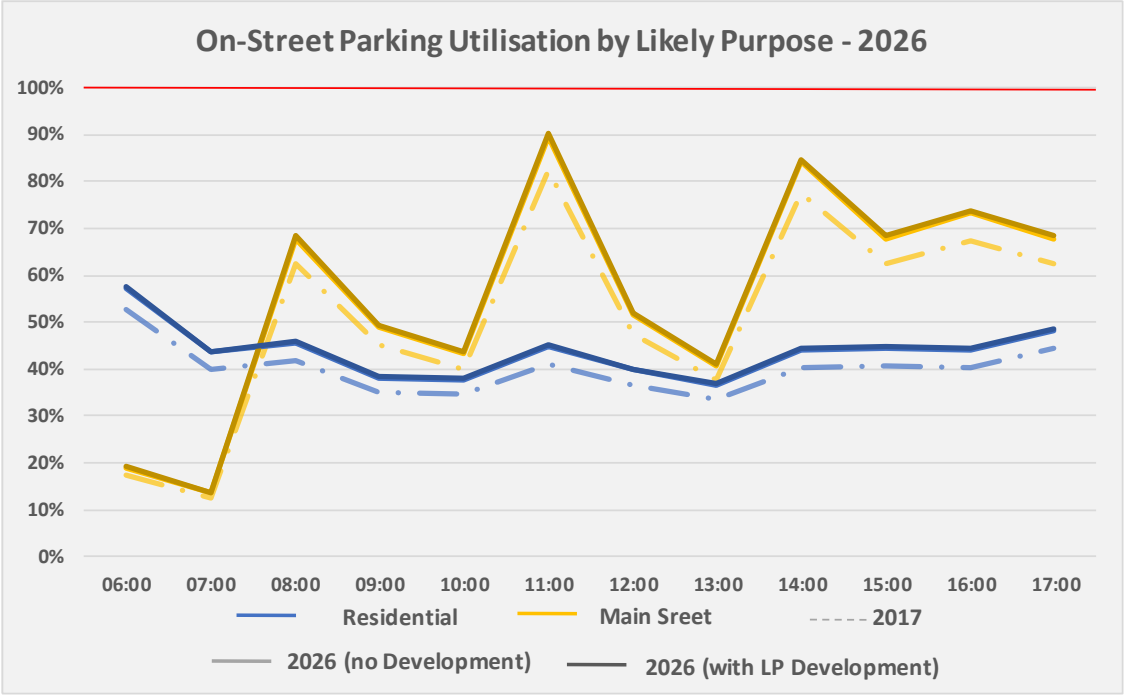
Source: 2017 Parking Survey and TEMPro Growth

This shows that the station car park is forecast to be over absolute capacity in 2026 with DLP growth. The growth in demand for village centre off-street parking is primarily forecast to be from background growth, with the DLP having a minor additional impact. The village centre parking is not predicted to reach capacity in 2026.

5.7.2.2 On-street 2026 forecast demand

Figure 5.20 shows the forecast 2026 growth for on-street parking by likely purpose. Main Street (north of Gorcott Lane) is expected to be for general purpose whilst all of the other roads are expected to be for residents parking.

Figure 5.20: On-street parking profile by purpose 2026



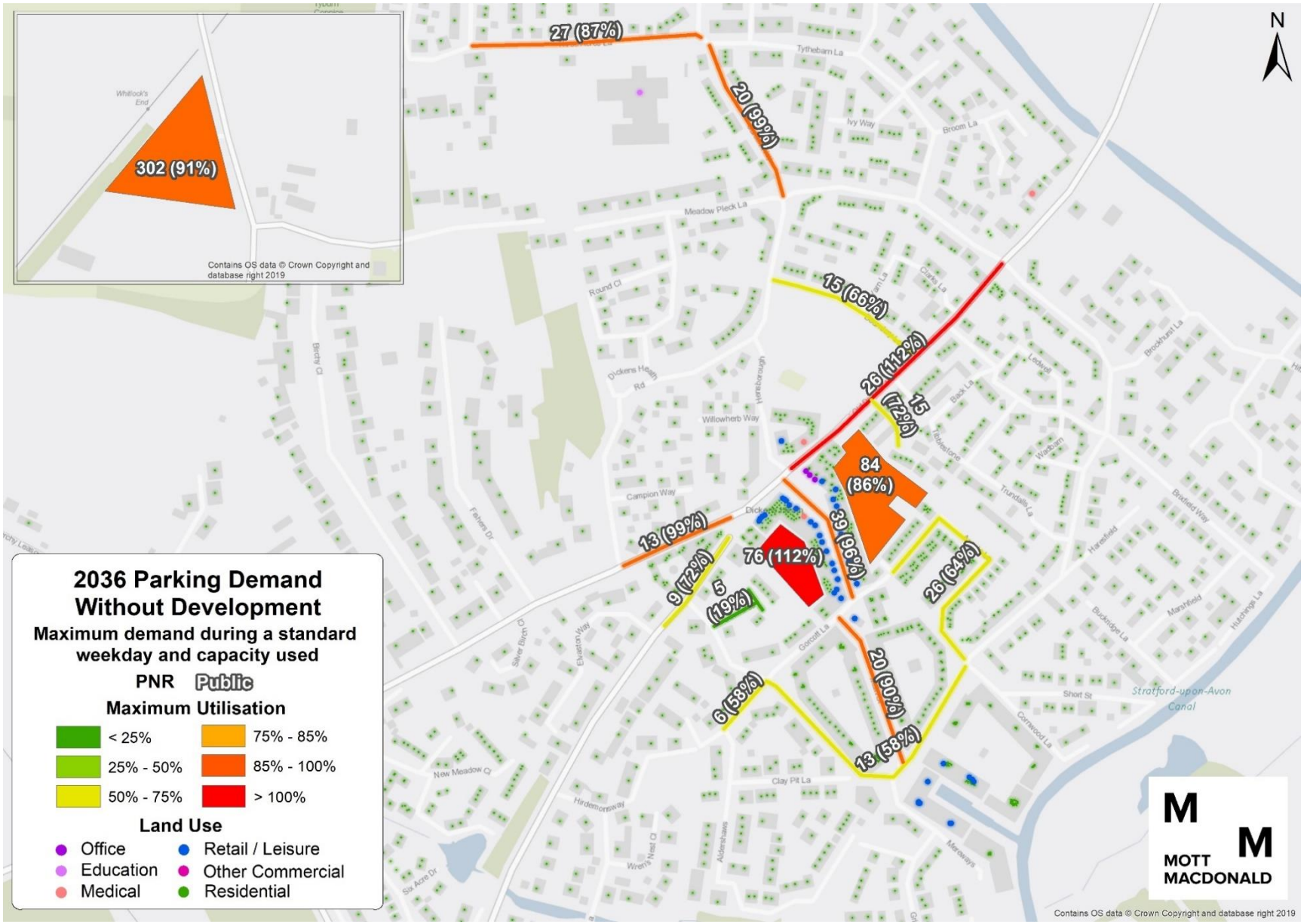
Source: 2017 Parking Survey and TEMPro Growth

This shows that for both Main Street and the other residential roads, the growth in 2026 is mainly caused by background growth, with DLP growth having only a minor additional impact. The residential roads are not forecast to be close to capacity in 2026 either without or with DLP growth. Main Street (north of Gorcott Lane) is forecast to be at 90% capacity at 11:00 and around 85% capacity at 14:00. However, at these times there is nearby parking with spare capacity.

5.7.3 2036 forecast demand

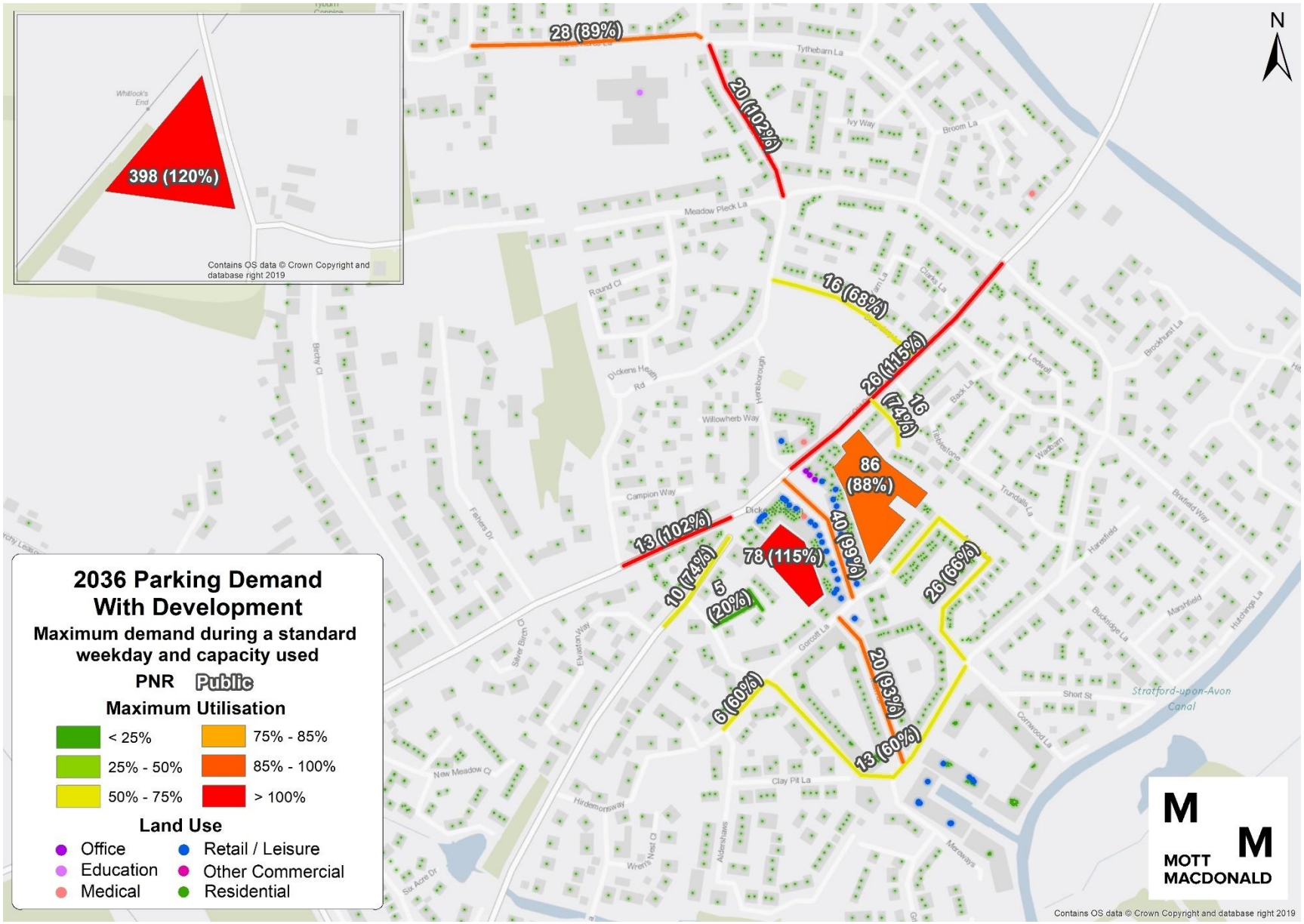
The growth factors shown in Table 5.2 for 2036 have been applied to the surveyed demand, with the 2036 without DLP maximum occupancy results show in Figure 5.21 and the equivalent 2036 with DLP results shown in Figure 5.22. The equivalent figures for the midday utilisation are shown in Figure 5.23 and Figure 5.24.

Figure 5.21: Maximum utilisation 2036 without DLP



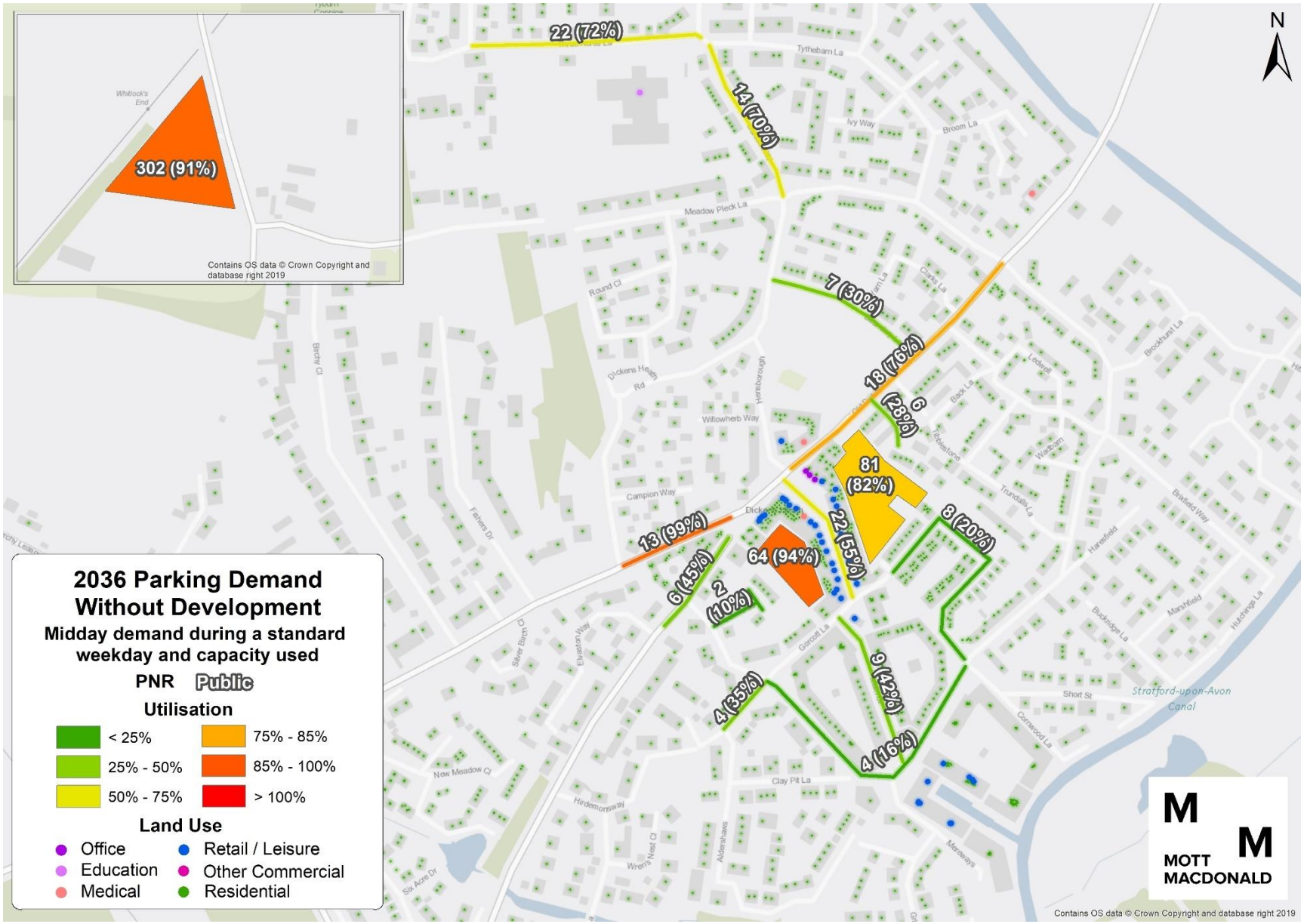
Source: 2017 Parking Survey and TEMPro Growth

Figure 5.22: Maximum utilisation 2036 with DLP



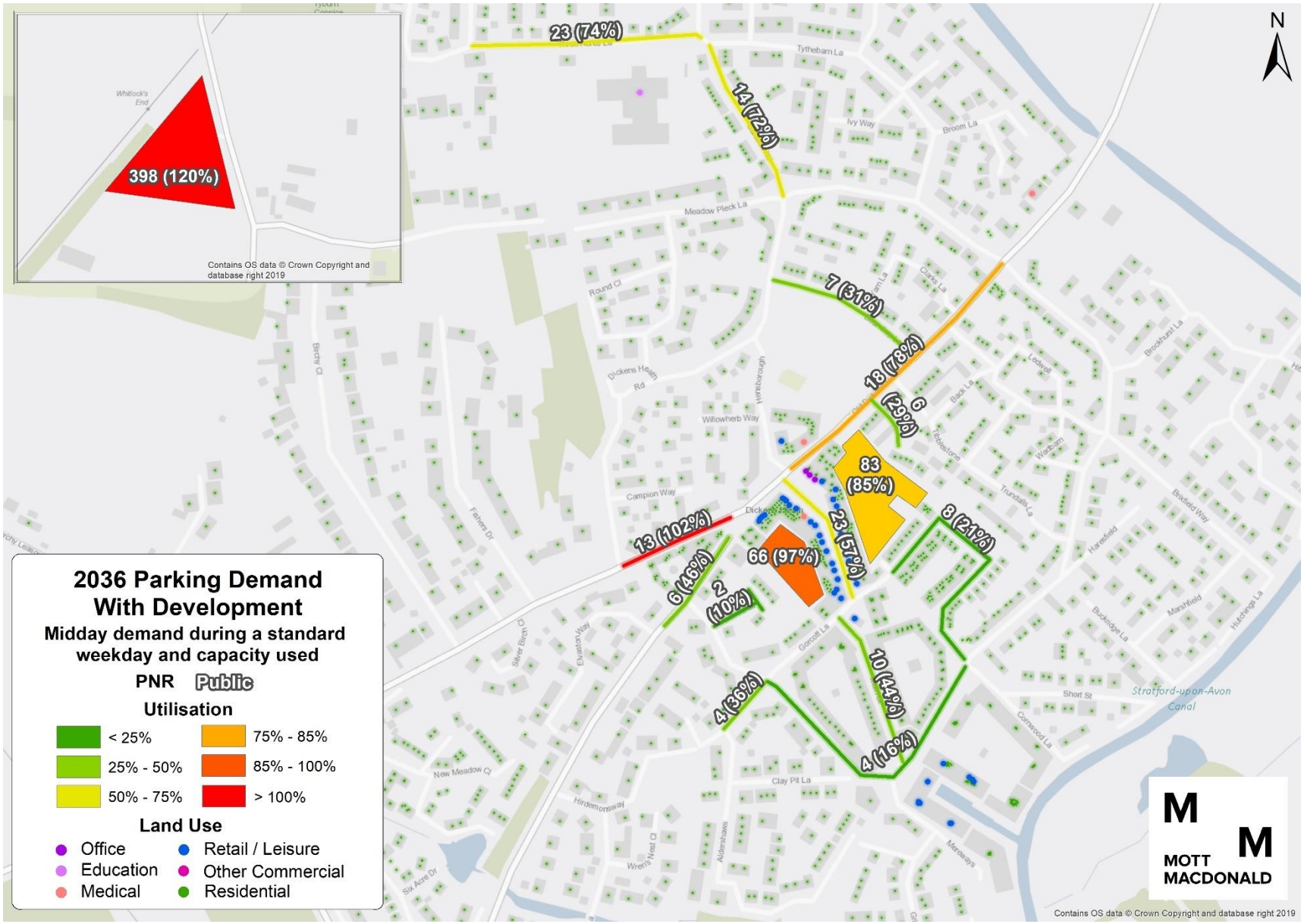
Source: 2017 Parking Survey and TEMPro Growth

Figure 5.23: Midday utilisation 2036 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 5.24: Midday utilisation 2036 with DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 5.21 shows that Site 3 and Old Dickens Heath are forecast to have demand higher than capacity in 2036 without DLP growth. Additionally, Main Street, Dickens Heath Road, Calcutt Way and Site 6 are forecast to get close to absolute capacity without DLP. At 11:00 the village centre parking locations are forecast to have high demand, which may result in delay caused by parking searches.

However, most of these locations are at their peak at different times. The peak times for these locations are as follows:

- Site 3: 06:00
- Site 6: 11:00
- Main Street (north of Gorcott Lane): 11:00
- Dickens Heath Road: 12:00 and 17:00
- Calcutt Way: 15:00
- Old Dickens Heath Road: 17:00

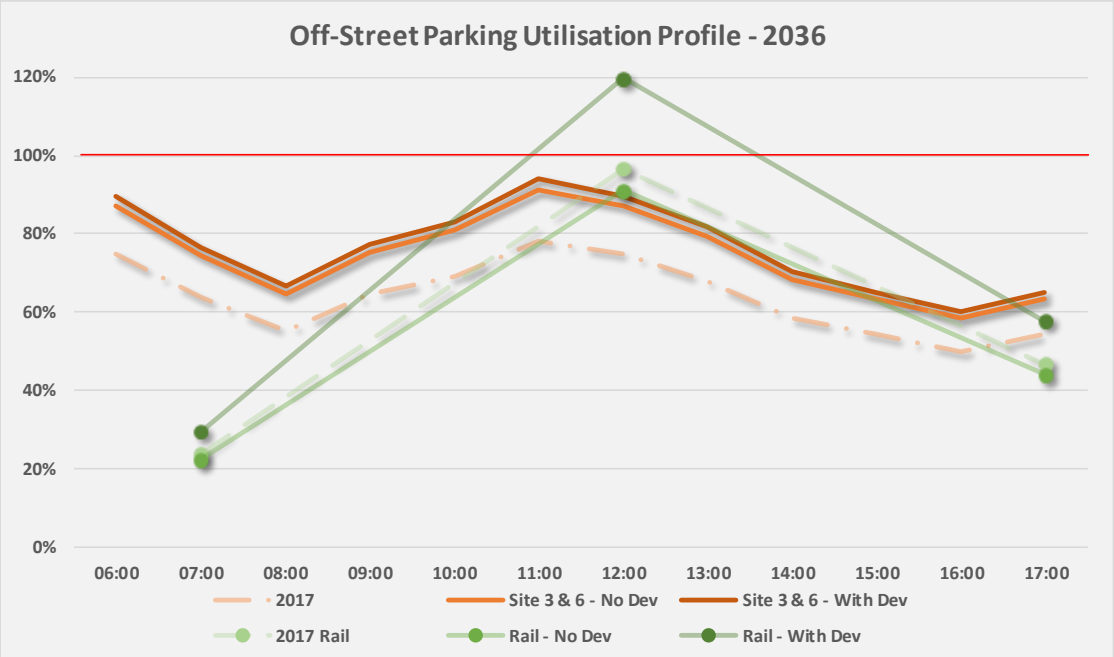
Therefore, when one location is at its peak and near or over capacity, other parking locations are not at their peak and will have spare capacity. This is shown in the midday utilisation figure (Figure 5.23 without DLP growth). This shows that whilst Site 3 is forecast to have 94% utilisation, Main Street is only at 55% capacity and many of the nearby residential streets are between 10% and 45% utilised.

Figure 5.22 and Figure 5.24 show the forecast demand in 2036 with DLP growth (at each parking locations' peak and at midday respectively). These show that the DLP has an impact in the village centre, but not as much of an impact as background growth. The DLP has a significant impact at Whitlocks End Rail Station, where the forecast demand is 120% of the capacity.

5.7.3.1 Off-street 2036 forecast demand

The following graph shows the overall forecast utilisation in 2036 with and without DLP growth for off-street parking.

Figure 5.25: 2036 forecast off-street parking utilisation



Source: 2017 Parking Survey and TEMPro Growth

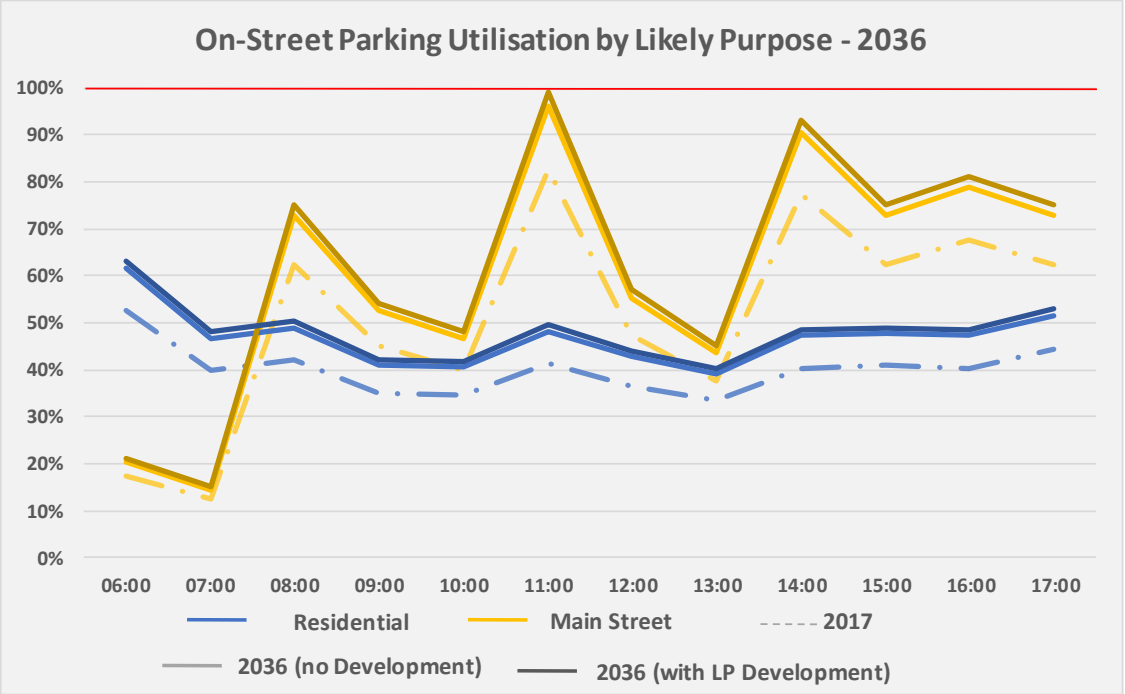
This shows that in 2036, the growth in demand at the rail station is caused by the DLP and that it reaches 120% of the capacity. There is demand for 398 vehicles, which is 66 vehicles over absolute capacity.

The off-street parking in the village centre (Sites 3 and 6) are close to absolute capacity in 2036 with DLP growth, but the DLP growth has a smaller additional impact compared to the background growth. In 2036 with DLP growth, the off-street parking in the village centre is forecast to be close to absolute capacity at 06:00 and 11:00.

5.7.3.2 On-street 2036 forecast demand

Figure 5.26 shows the forecast 2036 growth for on-street parking by likely purpose.

Figure 5.26: On-street parking profile by purpose 2036



Source: 2017 Parking Survey and TEMPro Growth

The general-purpose parking on Main Street is forecast to be at absolute capacity at 11:00 and at over 90% capacity at 14:00. However nearby roads that are more residential in purpose have spare capacity at this time. The growth is primarily background growth, with the DLP having a minor additional impact.

5.7.4 Summary

TEMPro factors, taking into account the DLP households, have been used to factor up the 2017 survey data to 2026 and 2036. 'Attraction' factors have been applied to the majority or car parks, with Rail / Underground 'Production' factors being applied to rail car parking.

Table 5.3 provides a summary for each parking location, showing the demand at the peak time throughout the day. This is over 2017, 2026 and 2036.

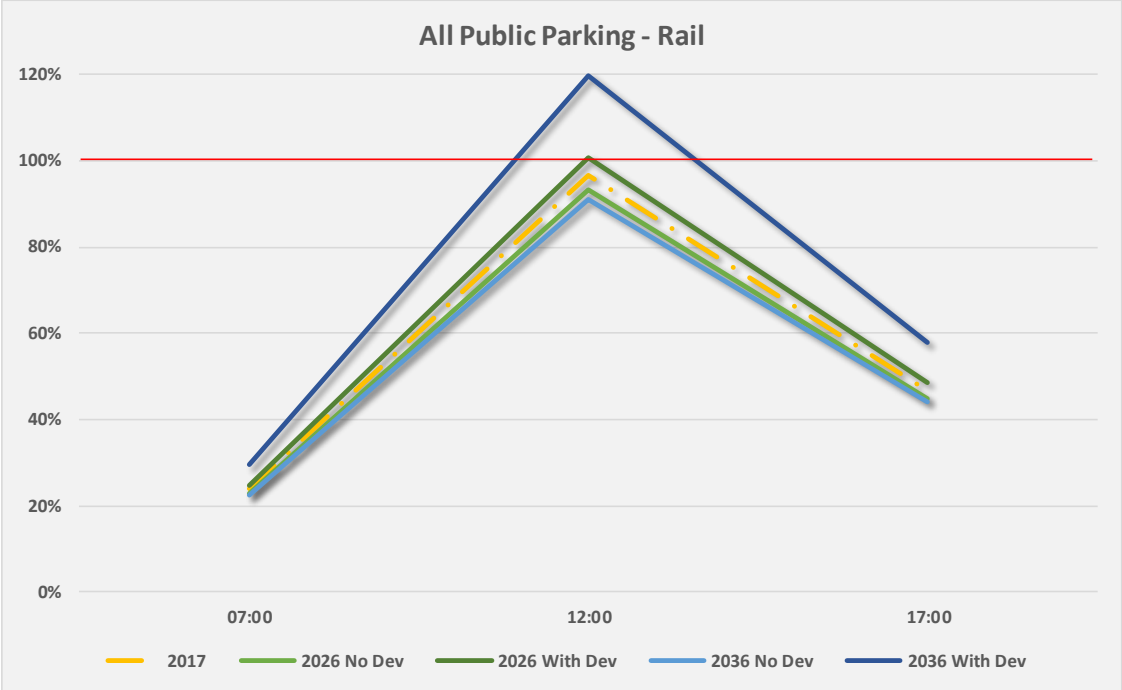
Table 5.3: Dickens Heath peak demand in 2017, 2026 and 2036

				Demand (at peak)					Available Spaces (at peak)				
					2026		2036			2026		2036	
No.	Location	Capacity	Peak Time	2017	Base	DLP	Base	DLP	2017	Base	DLP	Base	DLP
Off-Street Parking													
3	Rear of Tesco, Rumbush Lane	68	06:00	65	71	71	76	78	3	-3	-3	-8	-10
6	Back of Mortons	98	11:00	72	78	79	84	86	26	20	19	14	12
14	Whitlocks End Station	332	12:00*	321	309	334	302	398	11	23	-2	30	-66
On-Street Parking													
1	Dickens Heath Road (south of Old Dickens Heath Road)	13	12:00	11	12	12	13	13	2	1	1	0	0
2	Rumbush Lane (south of Dickens Heath Road)	13	06:00	8	9	9	9	10	5	4	4	4	3
4	Main Street (north of Gorcott Lane)	40	11:00	33	36	36	39	40	7	4	4	1	0
7	Boundary Lane	23	06:00	13	14	14	15	16	10	9	9	8	7
8	Old Dickens Heath Road	23	17:00	22	24	24	26	26	1	-1	-1	-3	-3
9	Hirdemonsway	10	06:00	5	5	5	6	6	5	5	5	4	4
10	Rumbush Lane (south of Gorcott Lane)	22	16:00	11	12	12	13	13	11	10	10	9	9
11	Main Street (south of Gorcott Lane)	22	06:00	17	18	19	20	20	5	4	3	2	2
13	Three Acres Lane	31	15:00	23	25	25	27	28	8	6	6	4	3
19	Packmores	24	08:00	4	4	4	5	5	20	20	20	19	19
20	Ascote Lane	40	06:00	22	24	24	26	26	18	16	16	14	14
21	Residential Access Road	21	06:00	13	14	14	15	16	8	7	7	6	5
22	Calcutt Way	20	15:00	17	18	19	20	20	3	2	1	0	0

* Only surveyed at 07:00, 12:00 and 17:00

In both 2026 and 2036, the area with the most significant DLP impact is by Whitlocks End Station. Figure 5.27 shows the forecast utilisation for the station car park.

Figure 5.27: Forecast parking utilisation for rail

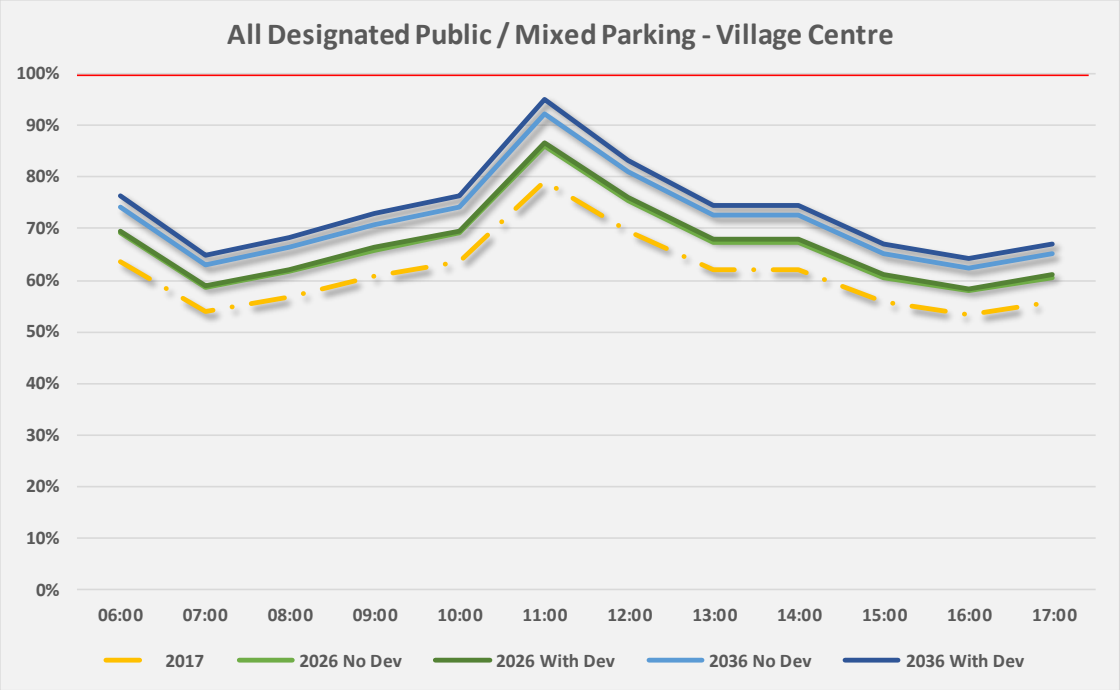


Source: 2017 Parking Survey and TEMPro Growth

This shows that the DLP is causing the growth at the station and that in 2026 it is already forecast to be over absolute capacity. In 2036, the demand is predicted to be around 120% of the capacity.

Parts of the village centre are forecast to be close to or over absolute capacity in both 2026 and 2036. Figure 5.28 shows the forecast utilisation for the mixed-use parking in Dickens Heath village centre (Site 3, Site 6 and Main Street north of Gorcott Lane) for 2026 and 2036. This is excluding all on-street parking that is likely used primarily for residential parking.

Figure 5.28: Forecast mixed-use public parking utilisation



Source: 2017 Parking Survey and TEMPro Growth

This shows that at 11:00 the mixed-use parking is forecast to be close to absolute capacity in 2036 with the DLP. However, the majority of the growth is background growth, with the DLP having a smaller additional impact. At all other times of the day the parking is forecast to be below 85% capacity.

At the peak time of 11:00 there is forecast to be spare capacity on nearby residential roads.

5.8 Mitigation

As with Balsall Common, there are two areas of interest in Dickens Heath: Whitlocks End Rail Station and the village centre.

5.8.1 Whitlocks End Rail Station

As Figure 5.27 shows, the parking at Whitlocks End rail station is forecast to be over capacity in both 2026 and 2036 with the DLP development.

The predicted exceedance of capacity is caused by DLP development impact rather than by background growth. In order to mitigate this excess demand for the station parking, it is suggested that additional station parking is built. In 2036 with the Local Plan developments, the rail car park is 66 vehicles over capacity. For the car park to operate at a maximum 85% capacity, it is recommended that a total of 136 spaces are built.

The indicative cost for an additional 136 parking spaces at the station car park is £980,000. This cost should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

The indicative cost assumes that the parking is at ground level and uses the existing access. It excludes maintenance, back office costs (such as issuing and management of permits) and any utility works or diversions.

5.8.2 Village centre

Figure 5.28 shows that the majority of growth in the village centre is background growth, with the DLP developments having only a marginal extra impact.

The general-purpose car parks in Dickens Heath are forecast to be close to capacity in 2036 with DLP growth. However, due to the residential nature of the on-street parking around the centre, at the peak time of 11:00 these other parking locations have spare capacity and are still within a short walk of the centre.

Increased trips to the general-purpose off-street car parks could cause issues for residents using them. Therefore restrictions could be implemented, such as pay & display with residents being exempt, to manage increased demand and avoid the car parks operating over capacity. Local residential streets should then be monitored to ensure overspill parking does not unduly impact residents.

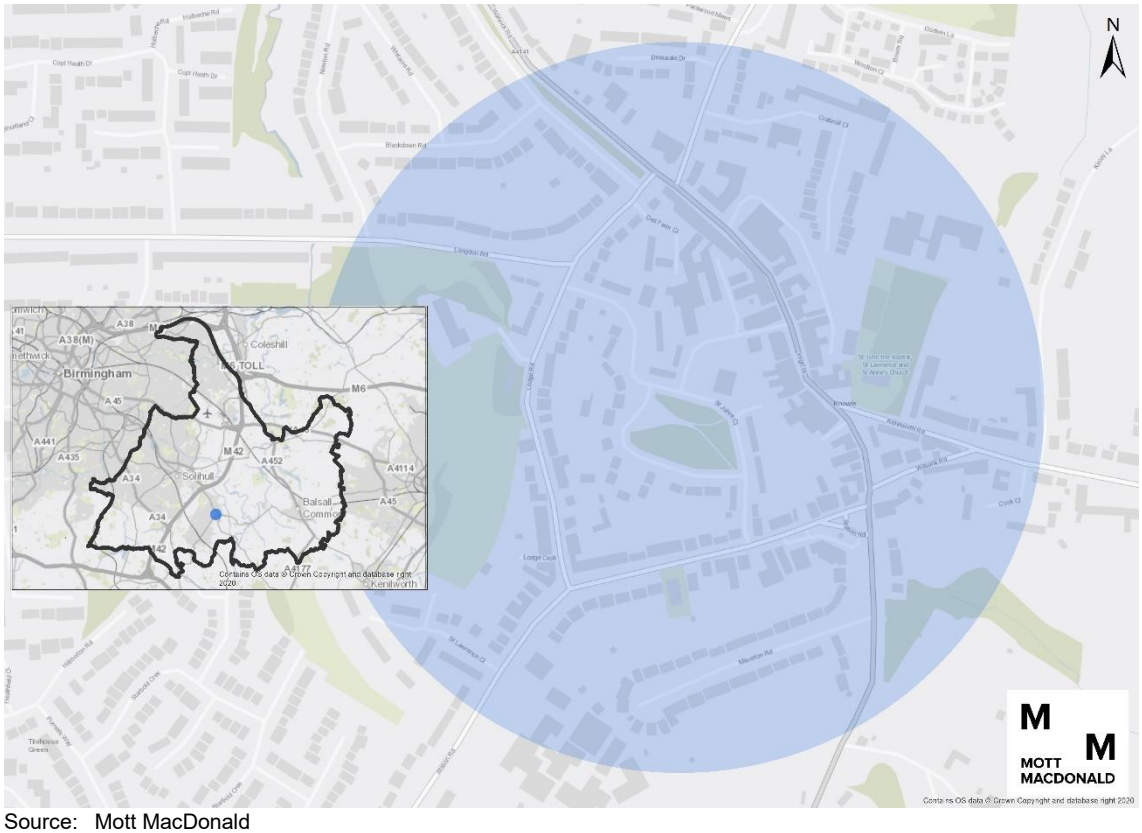
The indicative cost for pay and display machines at the two off-street car parks and on Main Street is £115,000. This cost includes the TRO to allow enforcement of parking charges, the pay and display machines and parking surveys bi-monthly for one year. It excludes maintenance costs and issuing and management of permits. This cost should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

6 Knowle

6.1 Introduction

Knowle is a large village of approximately 11,000 people, located close to the local centres of Solihull and Dorridge. It is three miles south-east of Solihull and is largely residential in character, with a thriving high street and various retail and business uses which attract large numbers of people to the village. Figure 6.1 shows the Knowle study area.

Figure 6.1: Knowle study area



Source: Mott MacDonald

6.2 Parking overview

6.2.1 Methodology

The methodology for identifying the parking is set out in Section 3.1, with the same method for Balsall Common being applied to Knowle.

6.2.2 Parking capacity, type and controls

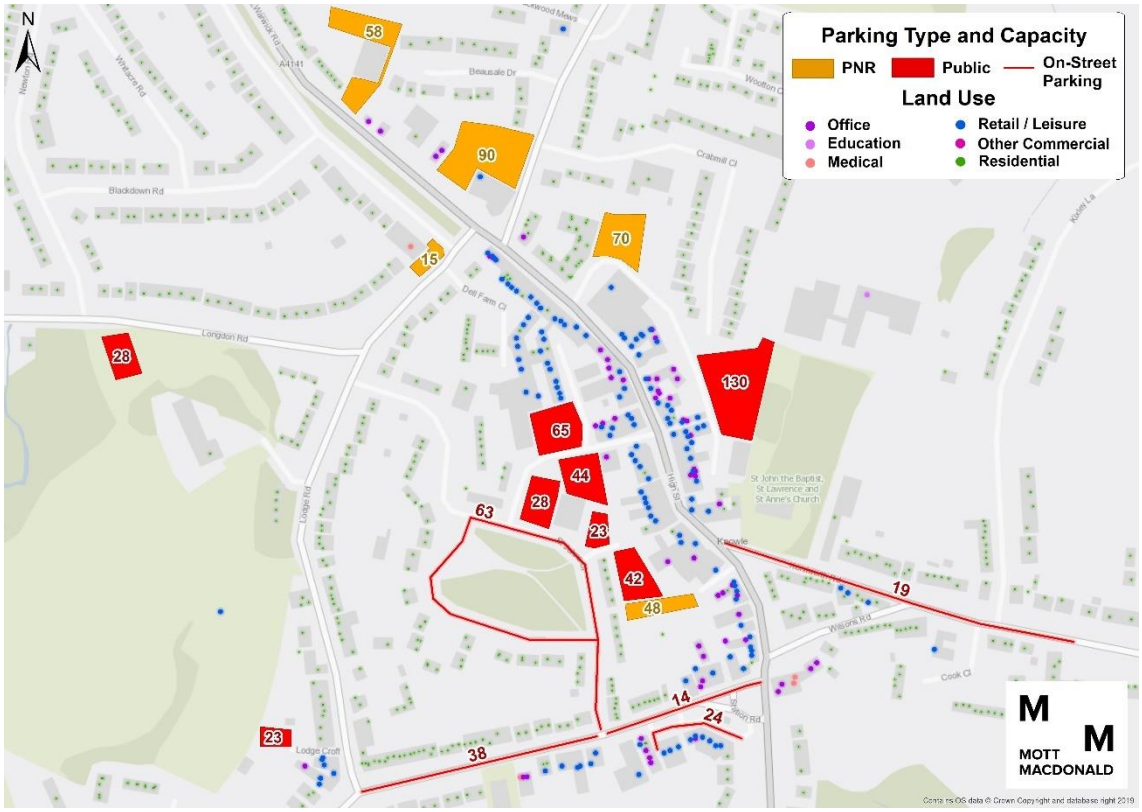
There are 18 parking areas located in Knowle, which are shown in Figure 6.2. The green areas represent off-street parking and the blue lines show on-street parking. Full information for each site can be found in Appendix D.

Figure 6.2: Knowle parking locations

Source: Mott MacDonald

Figure 6.3 shows the capacity of each of the parking locations along with if the parking is public or PNR. Public parking is shown in red with PNR shown in orange. Land uses have also been shown to help identify the likely purposes for each of the parking locations.

Figure 6.3: Knowle parking capacity and type



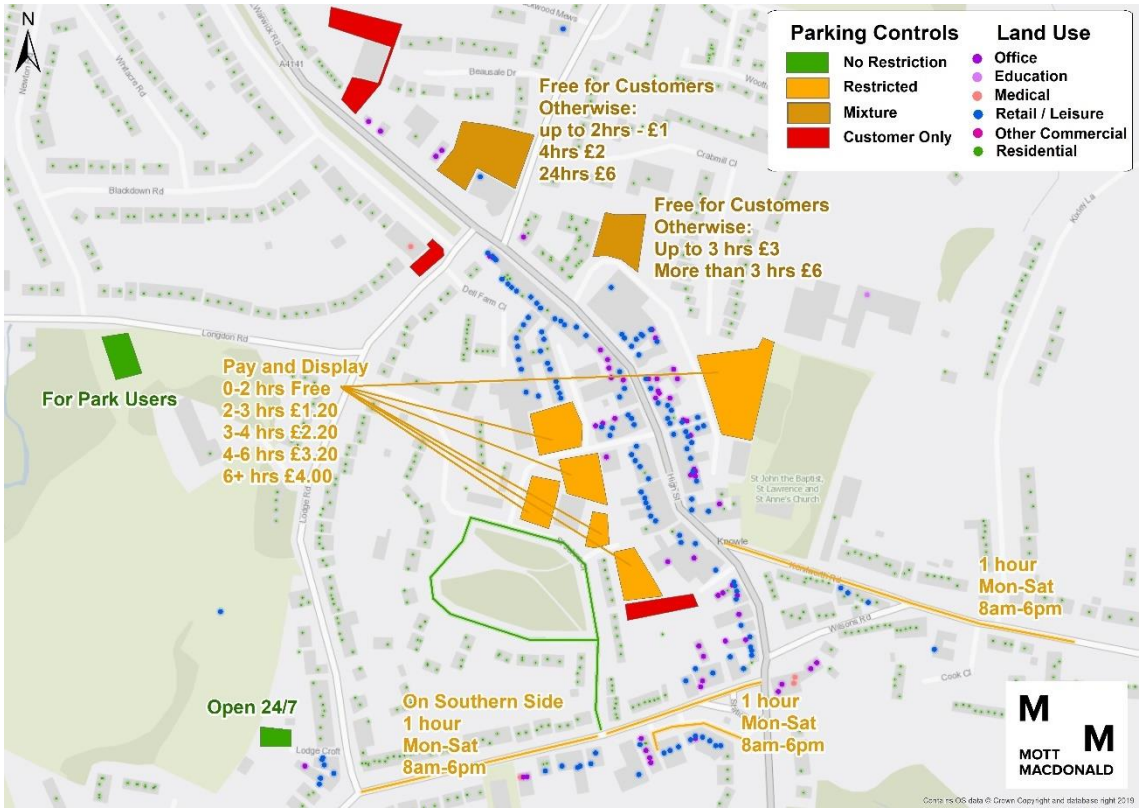
Source: Mott MacDonald

This shows that the majority of the on- and off-street parking near the retail, leisure and office land uses is public parking. The Red Lion Pub Car Park (Site 11) is the main exception on the High Street, with the other PNR car parks being further to the north but still close to the High Street.

By the High Street there are 332 off-street public parking spaces over the six car parks. To the west there are two other public car parks, with 28 spaces at Knowle Park and 23 at the Lodge Croft Car Park. There is marked on-street parking on Kenilworth Road and Station Road, with St Johns Close being unmarked and primarily residential.

Figure 6.4 shows the parking controls on each of the parking locations in Knowle.

Figure 6.4: Knowle parking controls



Source: Mott MacDonald

The six off-street public car parks near Knowle High Street are all Pay & Display, with the same tariff. Each of the non-residential on-street parking locations have a one hour maximum stay restriction between 8am and 6pm Monday to Saturday. The residential on-street parking and the two public car parks to the west have no restrictions.

There are two PNR car parks that offer parking for non-patrons for a charge. The Greswolde Arms Car Park (Site 3) and the Toby Carvery Car Park (Site 2) are free for customers but change for non-patrons at a rate higher than the public car parks. Between the two car parks, there are 160 spaces open to the public.

The Red Lion Pub (Site 11), The Royal British Legion (Site 15) and Knowle Surgery (Site 14) car parks are all for patrons only.

6.3 Alternative modes

A high-level review of the walking, cycling and public transport infrastructure in Knowle has been undertaken. This is to show the alternative mode choices that could be taken to access the destinations served by the car parks.

6.3.1 Site visit

On the Mott MacDonald site visit, it was noted that in general all footways are in good condition with numerous pedestrian crossings available. Some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- There is a stretch of road with no pedestrian footway between the two Greswolde Arms Hotel car parks, and
- The pedestrian route between the car park to the rear of Tesco and High Street is through St John's Shopping Centre, which is poorly lit and in need of aesthetic improvement

6.3.2 Walking and cycling routes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Knowle. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on. This is due to the nature of the roads being quiet and residential in character with a low number of vehicular movements. These routes are shown in Figure 6.5 along with potential walking routes.

Figure 6.5: Knowle cycling & walking network

Source: www.solihull.gov.uk/Portals/0/LeisureParksEvents/Cycling_and_Walking_foldout_map.pdf

There are numerous advisory routes within Knowle itself, as well as a designated cycle route on the A4141 Warwick Road either side of the village centre. The wider urban area of Knowle and Dorridge is very cycle-friendly with numerous advisory routes. Improvements could be made to encourage cycling as a mode of transport in Knowle itself, particularly with regards to the High Street for its entire length.

6.3.3 Bus routes

The following table provides details on the bus routes that serve Knowle.

Table 6.1: Bus services

Bus service	Bus route
87	Coventry – Solihull via Balsall Common, Knowle and Copt Heath
88	Solihull – Balsall Common via Copt Heath, Knowle, Chadwick End and Fen End
233	Solihull – Kenilworth via Knowle, Tile Hill, Balsall Common and Burton Green
514	Solihull – Warwick via Knowle, Chadwick End and Baddesley Clinton
A7/A8	South Solihull Circular via Knowle, Dorridge, Hockley Heath, Blythe Valley and Cheswick Green

6.4 Consultation

A 15-point questionnaire was produced with the overarching aim of understanding business owners' views on the current parking provision in each district and how it affects their business. Details can be found in Section 3.2.1 with the questionnaire in Appendix B.

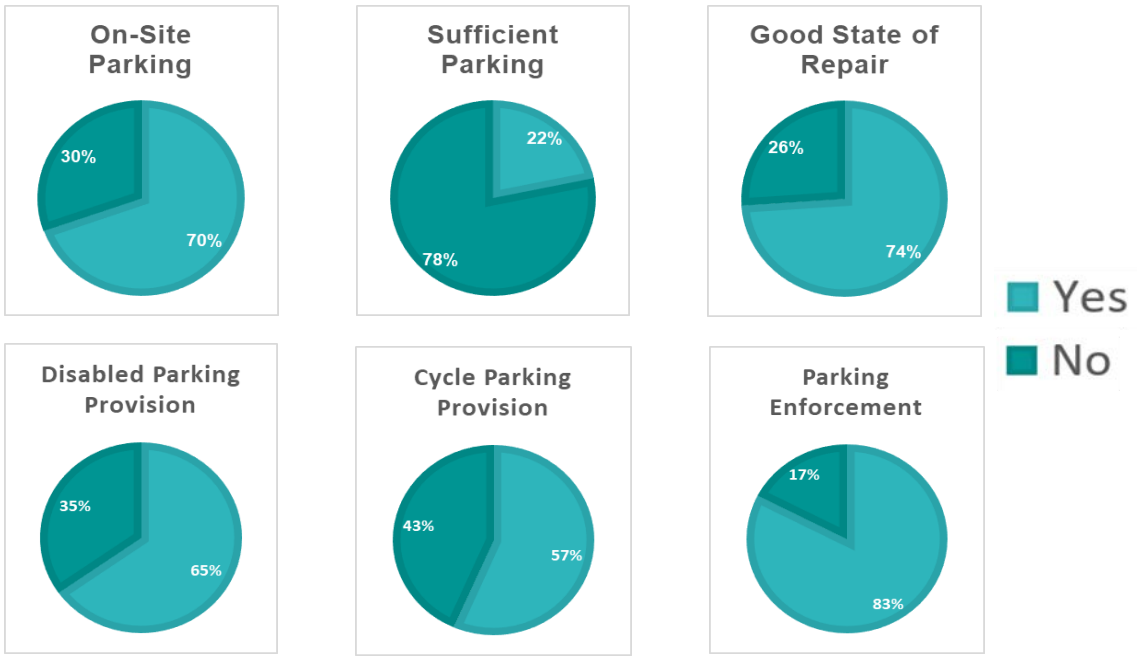
6.4.1 Business comments

23 businesses from Knowle responded to the questionnaire. 16 of these businesses have on-site parking whilst seven rely on public parking for staff and customers. Of the 16 businesses with on-site parking, nine believe there are capacity issues with many citing there is an inadequate number of spaces for their employees.

Of the 23 respondents, 17 stated the current parking provision is in a good state of repair whilst 15 stated there is insufficient disabled parking or enough alternatives. This issue was raised with numerous comments referencing that more local buses are required and bus timetables are currently an issue. As with Balsall Common and Dickens Heath, parking provision is perceived to be an issue, with 18 stating there is not enough parking currently provided, whilst 19 businesses stated there is not enough parking enforcement. 18 respondents regarded parking to be an important business issue whilst 11 believed that the current parking provision is either a minor or major hindrance to them.

For almost a third of respondents, a key issue with current parking provision is that customers and employees alike struggle to find parking spaces within Knowle, partly due to a lack of spaces and partly as a result of poor signage. Other problems raised by several businesses include a lack of season ticket availability or employee discount to use pay and display car parks, a lack of parking designated for businesses and employees, as well as parking having become too expensive since the recent price increase.

Figure 6.6: Selected results from Knowle business consultations



Source: Mott MacDonald

6.5 Existing parking demand

6.5.1 Introduction

This section outlines the existing levels of demand based upon surveys undertaken by survey specialists Tracsis Plc in 2017. As part of updating the analysis in 2020, surveys were going to be undertaken on a Saturday and on a neutral weekday at any locations where tariffs had changed. However, due to Covid-19 these surveys were not able to take place.

6.5.2 Survey details

Details on the surveys can be found in Section 3.2.2.

In Knowle, many of the car parks now have different tariffs compared to when the surveys were undertaken. The following table provides a comparison of the tariffs in place when the surveys were conducted against to the current tariffs at the public off-street car parks by the High Street (Sites 4, 5, 6, 7, 8 and 10).

Table 6.2: Public car park tariff change

Length of stay (hours)	Tariff at time of survey	Current tariff
0 – 2	Free	Free
2 – 3	Free	£1.20
3 – 4	£0.50	£2.20
4 – 5	£1.00	£3.20
5 – 6	£1.50	£3.20
6+	£2.00	£4.00

This shows that, apart from for stays under two hours, the prices for parking have increased significantly. This is likely to have had an impact of the parking at these car parks, but due to new surveys not being able to take place, the 2017 data has been used for this analysis. It is expected that the increased charges have since decreased the demand for vehicles staying for longer periods at the car parks.

When analysing the 2017 results and when determining the mitigation this has been considered. Before the mitigation is finalised it is recommended that new surveys are undertaken when travel patterns are back to neutral levels.

There have also been changes to PNR car parks. The Red Lion Pub car park is now for customers only, whereas when surveyed it allowed non-patrons to park for a charge. The Greswolde Arms Hotel car park has increased its tariff by £1 for each band and the Toby Carvery now charges for parking for non-patrons, which was not the case when the surveys were undertaken. The following table details the changes to tariffs.

Table 6.3: PNR car park tariff changes

Location	Tariff at time of survey	Current tariff
Red Lion Pub (Site 11)	Free for customers Up to 3 hours (£2), More than 3 hours (£5)	Customers Only
Greswolde Arms Hotel (Site 3)	Free for hotel residents/customers Up to 3 hours (£2), More than 3 hours (£5)	Free for hotel residents/customers Up to 3 hours (£3), More than 3 hours (£6)
Toby Carvery (Site 2)	Customers only	Free for customers. Up to 2hrs (£1), 4hrs (£2), 24hrs (£6)

This is likely to have impacted the demand at these car parks but, due to new surveys unable to take place, the 2017 data has been used for this study. As with the public car parks, these changes have been considered in the analysis and mitigation, but it is recommended new surveys are undertaken when the traffic levels are back to neutral conditions.

In 2017, the following car parks were not surveyed:

- Knowle Surgery (15 spaces)
- Royal British Legion (55 spaces)

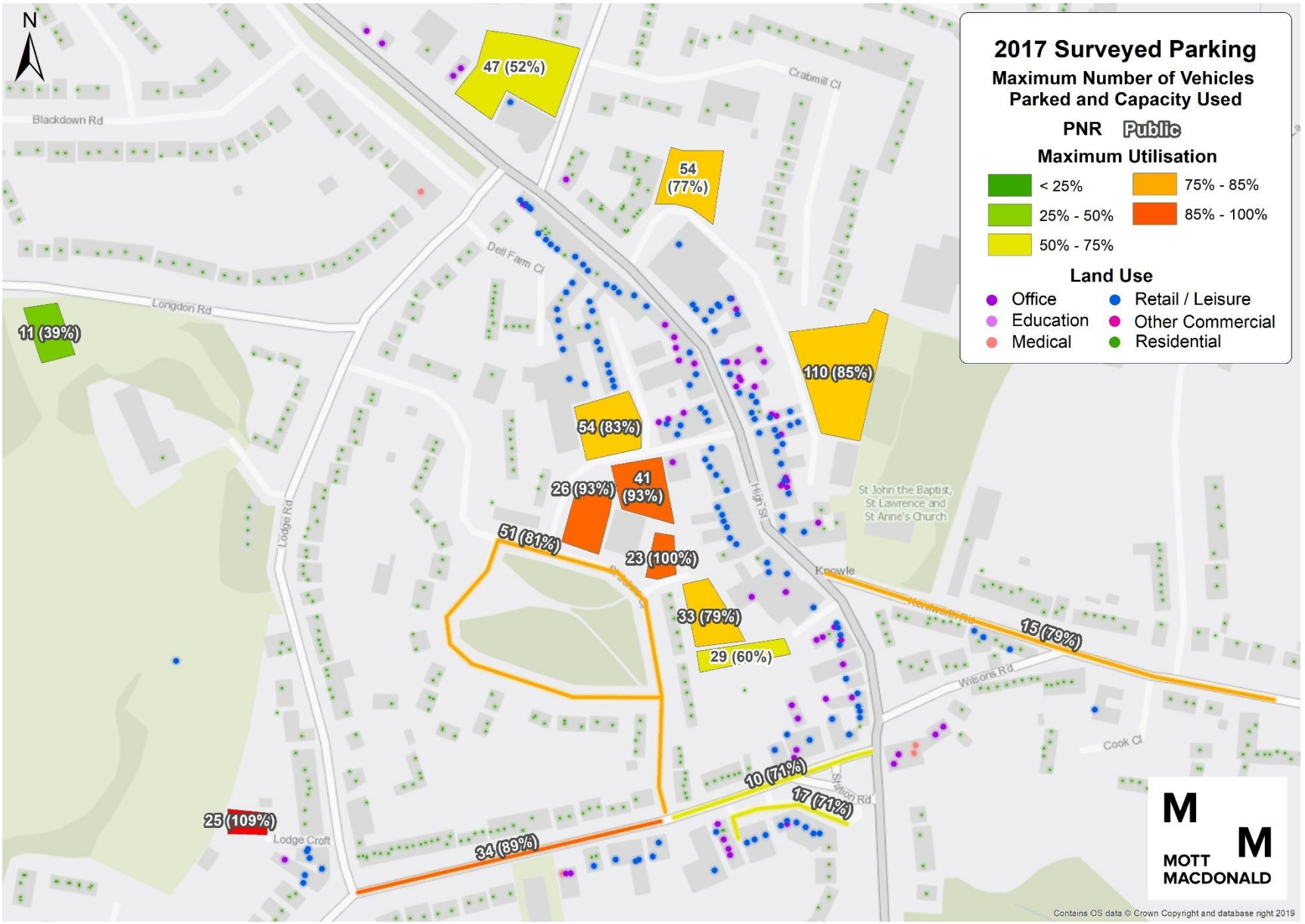
These car parks are unlikely to be used by visitors to or employees in Knowle due to their location on the outskirts of the village centre.

6.5.3 Existing demand

Figure 6.7 below shows the maximum utilisation surveyed in 2017 for each parking location. This is at any point during the day and it should be noted that many car parks are at their maximum peaks at different times.

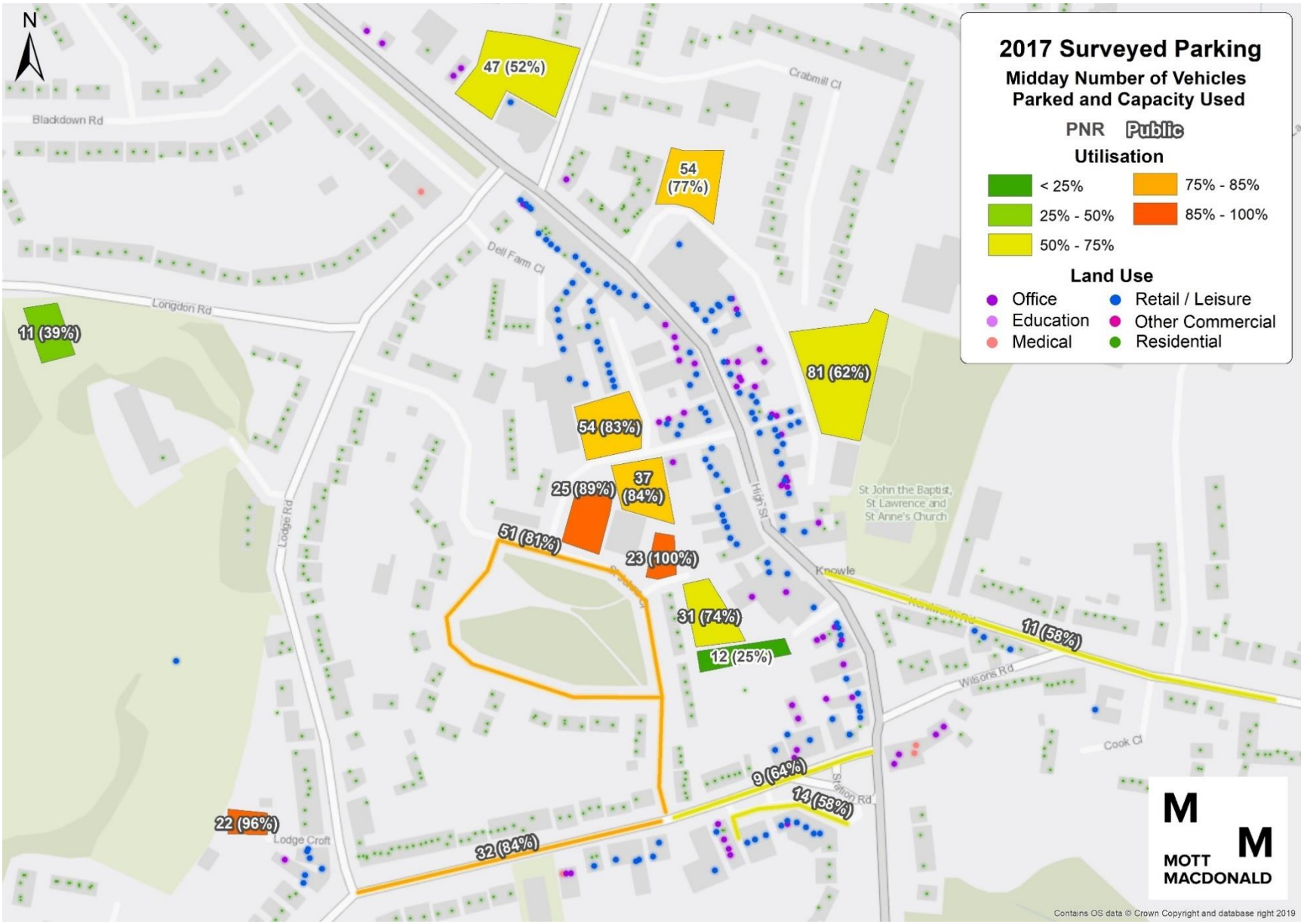
Whilst some sites were surveyed each hour between 06:00 and 18:00, some sites were surveyed at three points in the day, at 07:00, 12:00 and 17:00. The peak hour out of the three times surveyed across all car parks was at 12:00. Figure 6.8 shows the utilisation at each of the car parks at 12:00.

Figure 6.7: Knowle 2017 maximum utilisation



Source: 2017 Parking Survey

Figure 6.8: Knowle 2017 utilisation at 12:00



Source: 2017 Parking Survey

Figure 6.7 shows that many of the car parks are close to capacity, with the Village Hall East Car Park (Site 8) being at absolute capacity and Lodge Croft Car Park (Site 12) being over absolute capacity at its peaks.

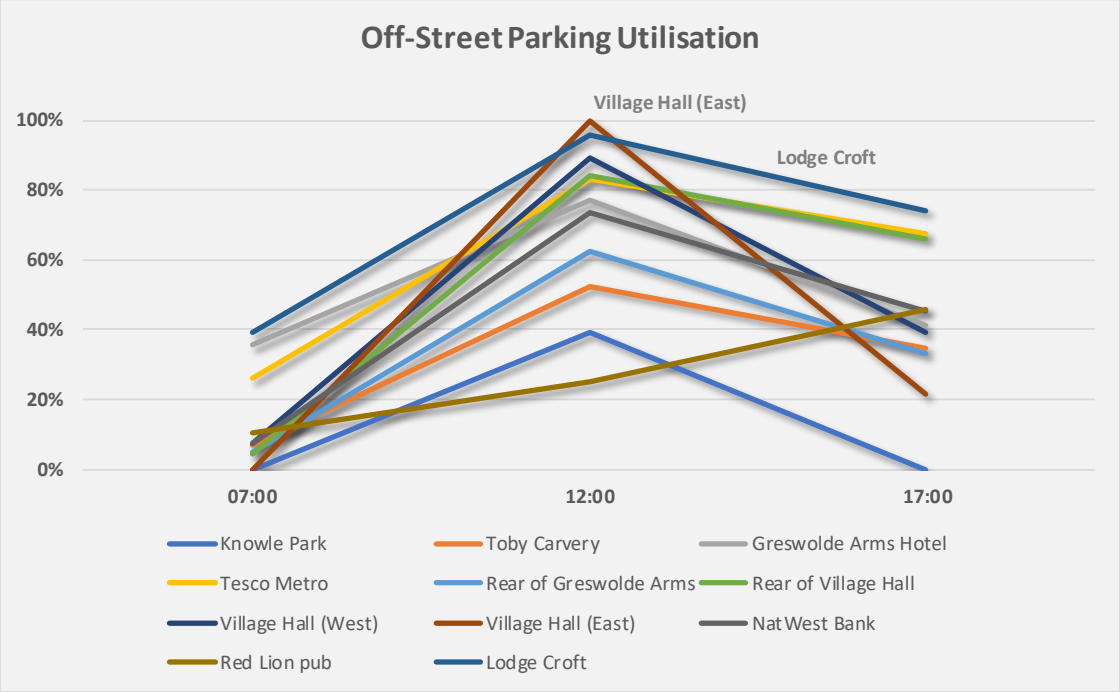
The on-street parking also sees high demand, with Station Road to the west of St Johns Close reaching 89% utilisation. This may result in congestion through parking searches.

At midday, four of the public car parks (Sites 4, 6, 7 and 8) are close to or at capacity. However, Site 5 and Site 10, both pubic car parks with the same tariff, have spare capacity. Both Station Road to the west of St Johns Close and St Johns Close have high utilisation at midday (84% and 81% respectively). These are both partly residential in nature but are still utilised throughout the day.

6.5.3.1 Off-street parking

All sites were surveyed at 07:00, 12:00 and 17:00. The following figure shows the utilisation at each of the surveyed off-street car parks at these times.

Figure 6.9: Knowle off-street car park utilisation

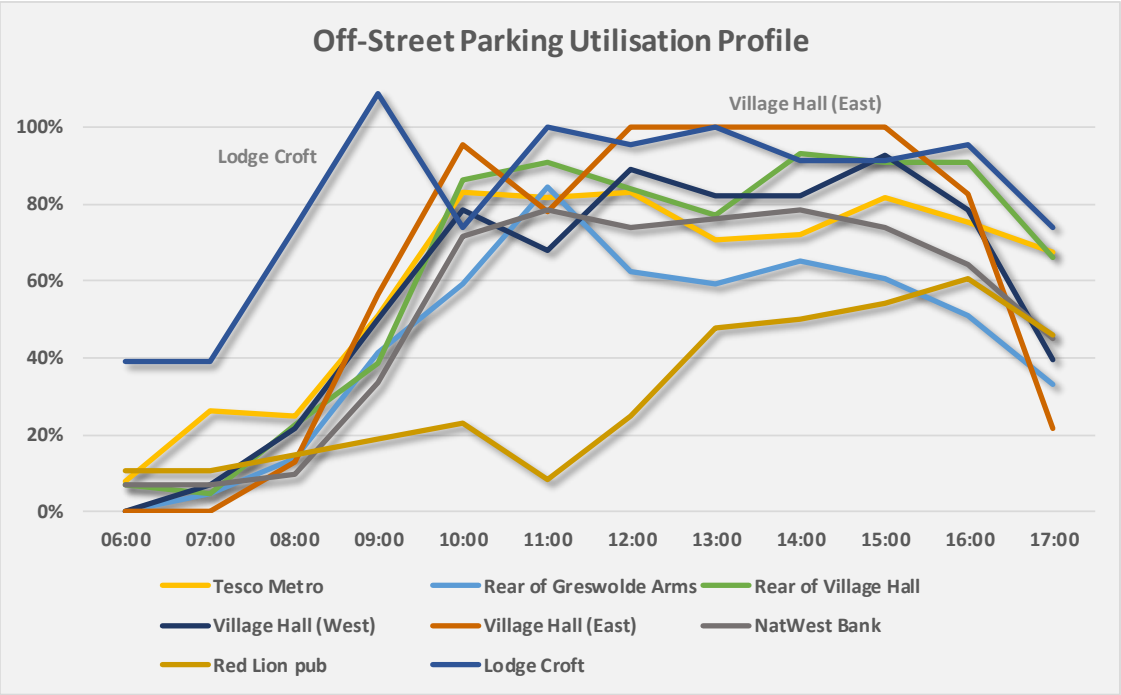


Source: 2017 Parking Survey

This shows that most of the car parks have their peaks nearer midday. The only exception to this is the Red Lion Pub. The three car parks only surveyed at 07:00, 12:00 and 17:00 were Knowle Park, Toby Carvery and the Greswolde Arms Hotel. Each of these car parks peak at 12:00, with Knowle Park reaching 39% utilisation, Toby Carvery reaching 52% and the Greswolde Arms Hotel reaching 77%.

Figure 6.10 shows the profile of the other off-street car parks throughout the day.

Figure 6.10: Knowle off-street car park utilisation profile

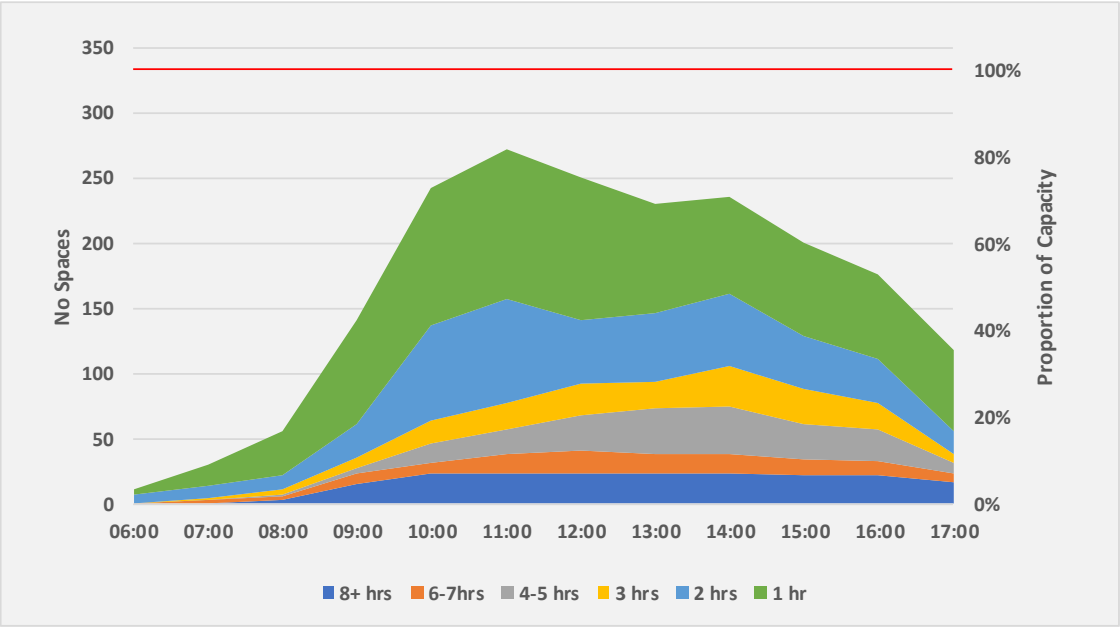


Source: 2017 Parking Survey

This shows that many of the car parks have high utilisation between 10:00 and 16:00. Loft Croft Car Park is over absolute capacity at 09:00 and the Village Hall (East) Car Park is at absolute capacity between 12:00 and 15:00.

The following figure shows the profiles of the public off-street car parks combined, though it should be noted that these do not include Knowle park. It also shows how the spaces are used by vehicles staying for different lengths of time.

Figure 6.11: Knowle off-street car park utilisation and length of stay



Source: 2017 Parking Survey

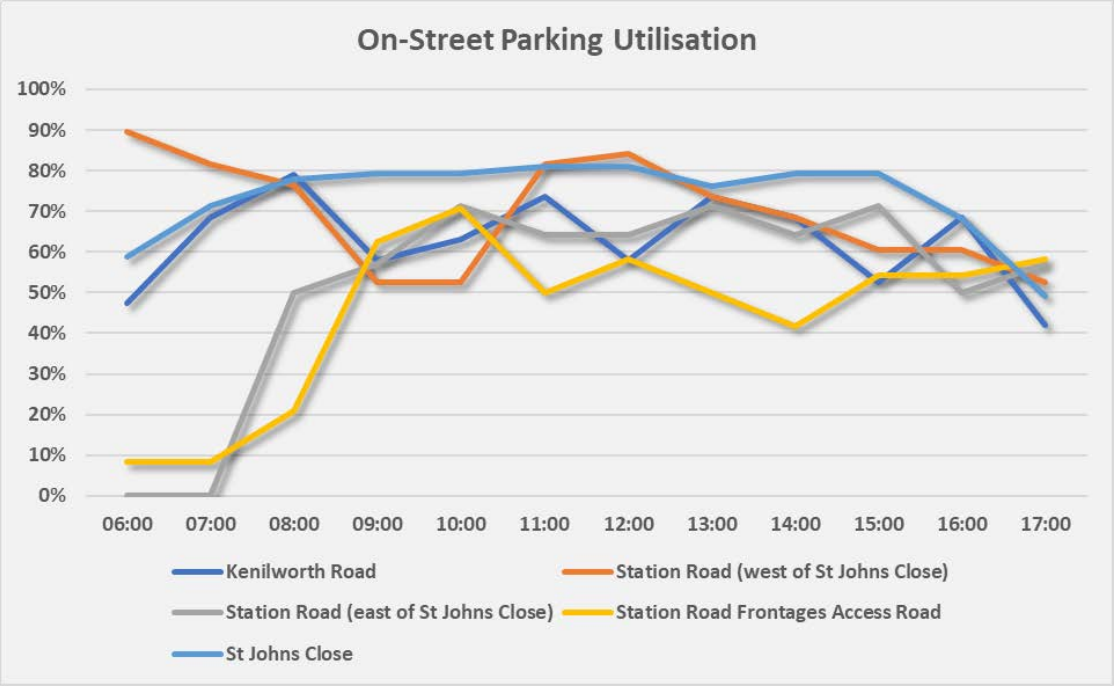
This shows that the peak time overall for the public off-street parking is at 11:00, but it still stays above 73% utilisation between 10:00 and 15:00.

At the peak times, the majority of cars are parked for short stays. At 11:00 42% of the cars are parked for one hour or less and a further 29% are parked for two hours or less. Between 10:00 and 16:00 on average 7% of the total spaces are utilised by cars staying over eight hours and 19% of the total spaces are used by cars staying over four hours.

6.5.3.2 On-street parking

All the on-street parking was surveyed each hour over a 12-hour period. The profiles for the utilisation of each road is shown in the graph below.

Figure 6.12: On-Street Parking Daily Profile



Source: 2017 Parking Survey

This shows that the road with the highest utilisation is Station Road (west of St Johns Close) which is 89% at 06:00. However, this is generally the time the other roads are near their lowest utilisation.

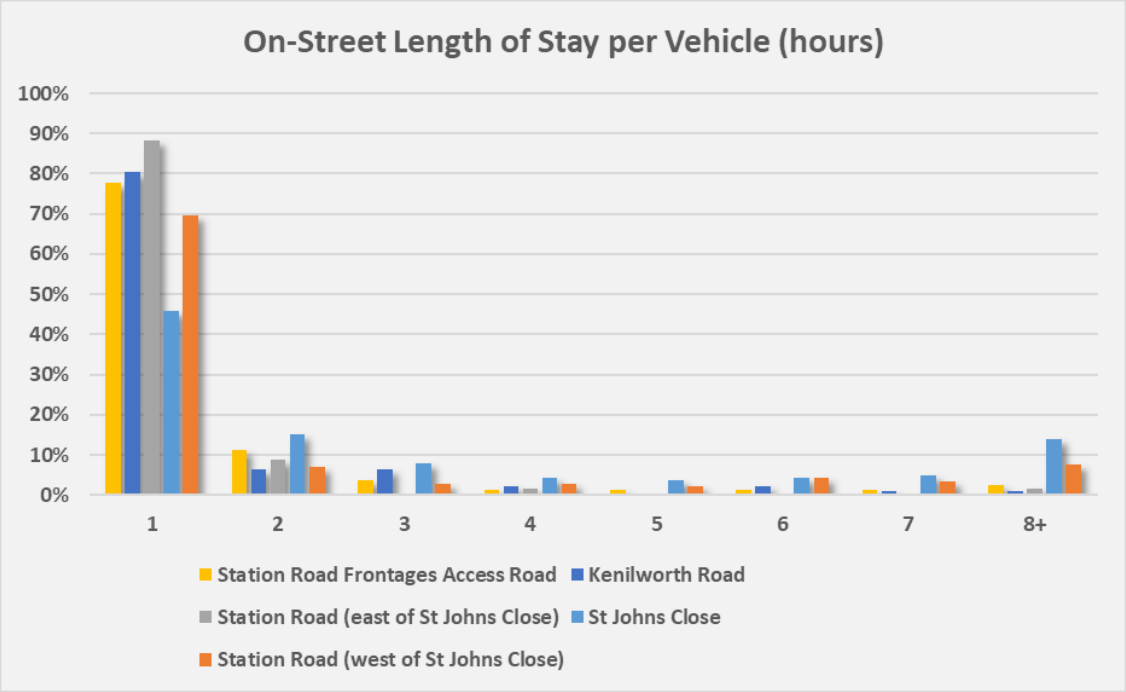
The utilisation on Station Road (west of St Johns Close) reduces from its peak at 06:00 until 09:00, likely due to residents leaving for work. It then increases to a second smaller peak at 12:00 with 84% utilisation before decreasing towards 17:00.

The other on-street parking along Station Road, including on the frontages of the retail and offices, generally increases around 09:00 and stays between 42% and 71% until 17:00. Kenilworth Road fluctuates throughout the day and stays between 42% and 79%.

Whilst St Johns Close is primarily residential, the times when it is least utilised are at 06:00 and 17:00. The utilisation increases at 09:00 and then stays around 80% until 15:00.

Figure 6.13 below shows the length of stay per vehicle at each of the on-street car parking locations.

Figure 6.13: On-street parking length of stay per vehicle

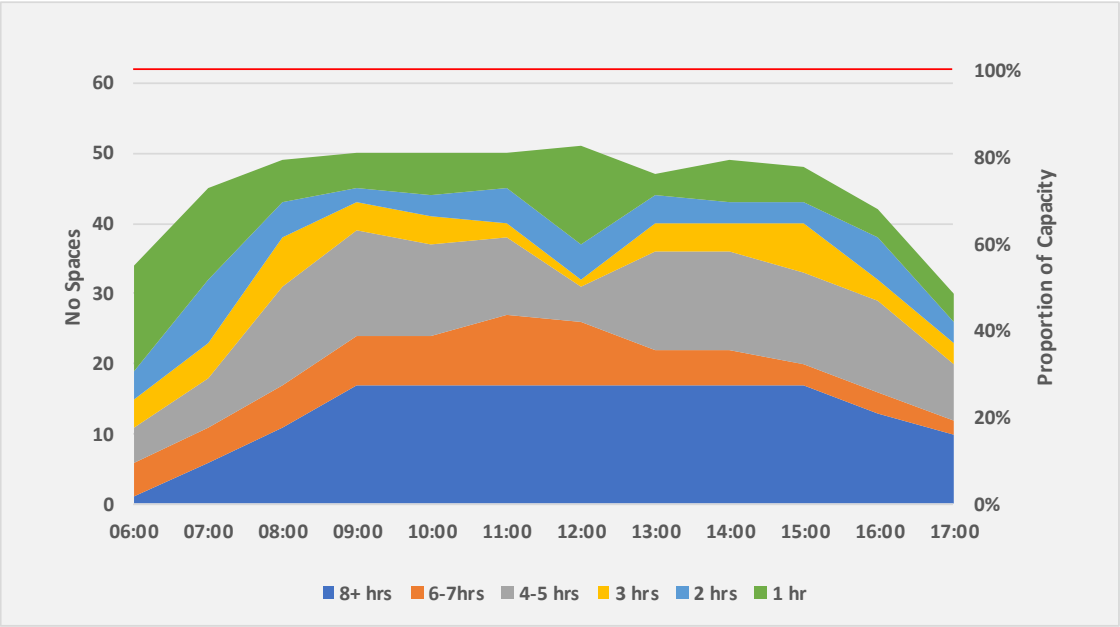


Source: 2017 Parking Survey

This shows that the parking on Kenilworth Road and Station Road (both parts to the east of St Johns Close) have low average length of stays, around one hour or less for around 78% to 88% of the vehicles. This is in line with the one-hour maximum stay between 8am and 6pm.

Station Road to the west of St Johns Close also has the majority of vehicles staying for one hour or less, but does have some staying for longer periods. St Johns Close has a relatively low number of short stay trips, with longer stays compared to the other roads. How the spaces on St Johns Close are used by vehicles with different lengths of stays is shown in the below figure.

Figure 6.14: St Johns close utilisation by length of stay



Source: 2017 Parking Survey

This shows that between 09:00 and 15:00, around 27% of the available spaces on St Johns Close are occupied by vehicles staying for eight hours or longer. There are nine vehicles that are parked on St Johns Close before 12:00 for at least three hours, leave at 12:00 and then come back for at least three hours at 13:00. This accounts for a large portion of the vehicles parked for four to five hours.

6.5.4 Summary

Survey data from 2017 was used to determine the current parking demand in Knowle due to new surveys being unable to take place due to Covid-19. However, a large portion of the car parks have different tariffs now compared to when the surveys were undertaken.

Many of the car parks have high utilisation between 10:00 and 16:00. Loft Croft Car Park is over absolute capacity at 09:00 and the Village Hall (East) Car Park is at absolute capacity between 12:00 and 15:00.

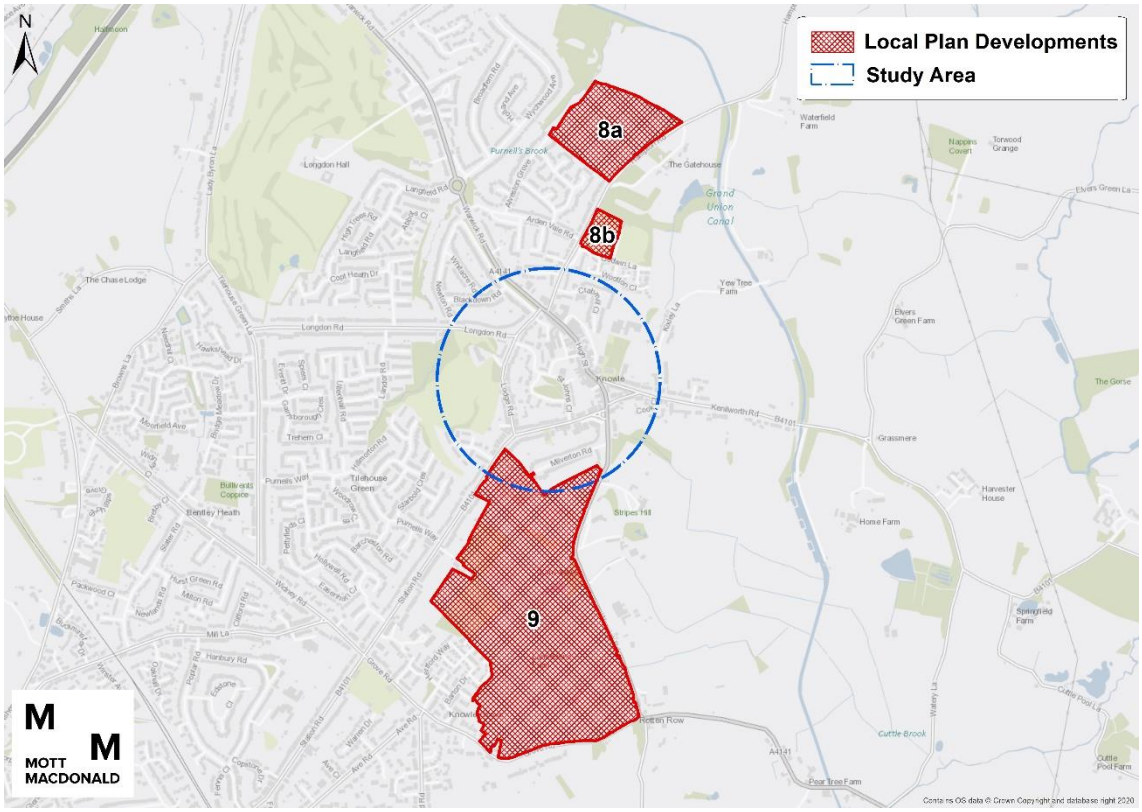
The peak time overall for the public off-street parking is at 11:00 at 80%, but it still stays above 73% utilisation between 10:00 and 15:00. At the peak times, the majority of cars are parked for short stays. At 11:00 42% of the cars at the public off-street car parks are parked for one hour or less and a further 29% are parked for two hours or less.

The highest utilisation out of the on-street parking is on Station Road (west of St Johns Close) which is at 89% capacity at 06:00. All of the on-street parking is used between 09:00 and 17:00, with all roads between 42% and 80% utilisation.

6.6 Local Plan growth

Around Knowle there are two proposed DLP developments (with Site 8 having two parcels), which are shown in Figure 6.15 below.

Figure 6.15: Knowle DLP developments



Source: SMBC

The build-out projection for each site in 2026 and 2036 is shown below.

Table 6.4: Knowle DLP development projection

Site number	No. of dwellings	Built by 2026	Built by 2036
8a (north)	150	50	150
8b (south)	150	50	150
9	600	200	600
Total	**900**	**300**	**900**

This shows that the majority of the housing will be built for 2036, with only a third built in 2026. It should be noted that in the SMBC Draft Submission Plan, site 8 is forecast to have 180 dwellings in total over the two parcels. However, for this study it was agreed with SMBC that 300 dwellings would be assessed as this is the upper limit for the site.

6.7 Future parking demand

6.7.1 Methodology

In order to determine future parking demand in each of the areas, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro). The method for calculating this trip rate is set out in Section 3.3. For Knowle the MSOA of Solihull 026 has been selected.

The following growth factors have been derived for Knowle:

Table 6.5: Knowle TEMPro growth factors

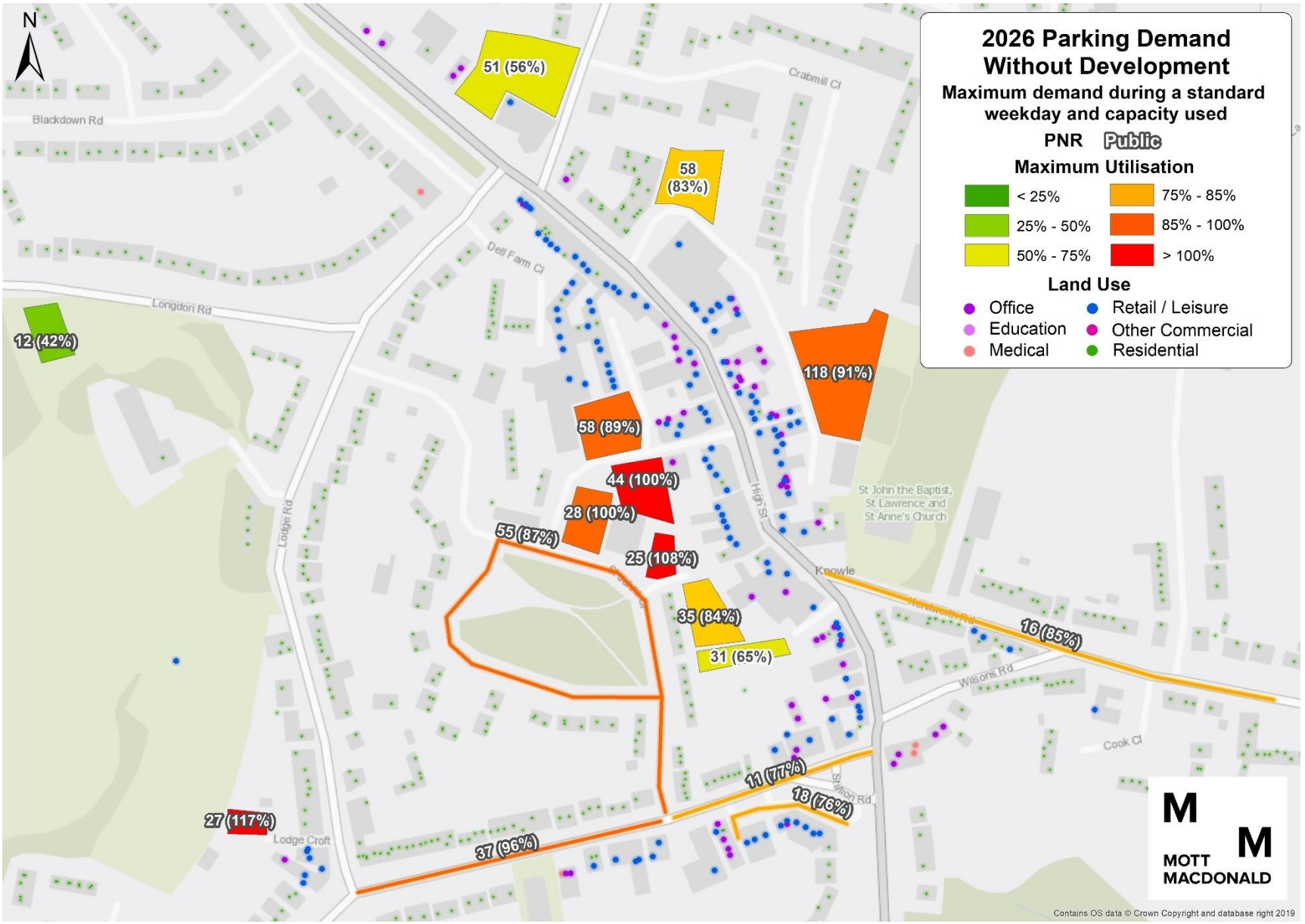
Average weekday	Car driver attraction	
	No DLP	With DLP
2026	1.075	1.082
2036	1.144	1.163

6.7.2 2026 forecast demand

The growth factors shown in Table 6.5 have been applied to the surveyed demand, with the 2026 without DLP maximum occupancy results show in Figure 6.16 and the equivalent 2026 with DLP results shown in Figure 6.17.

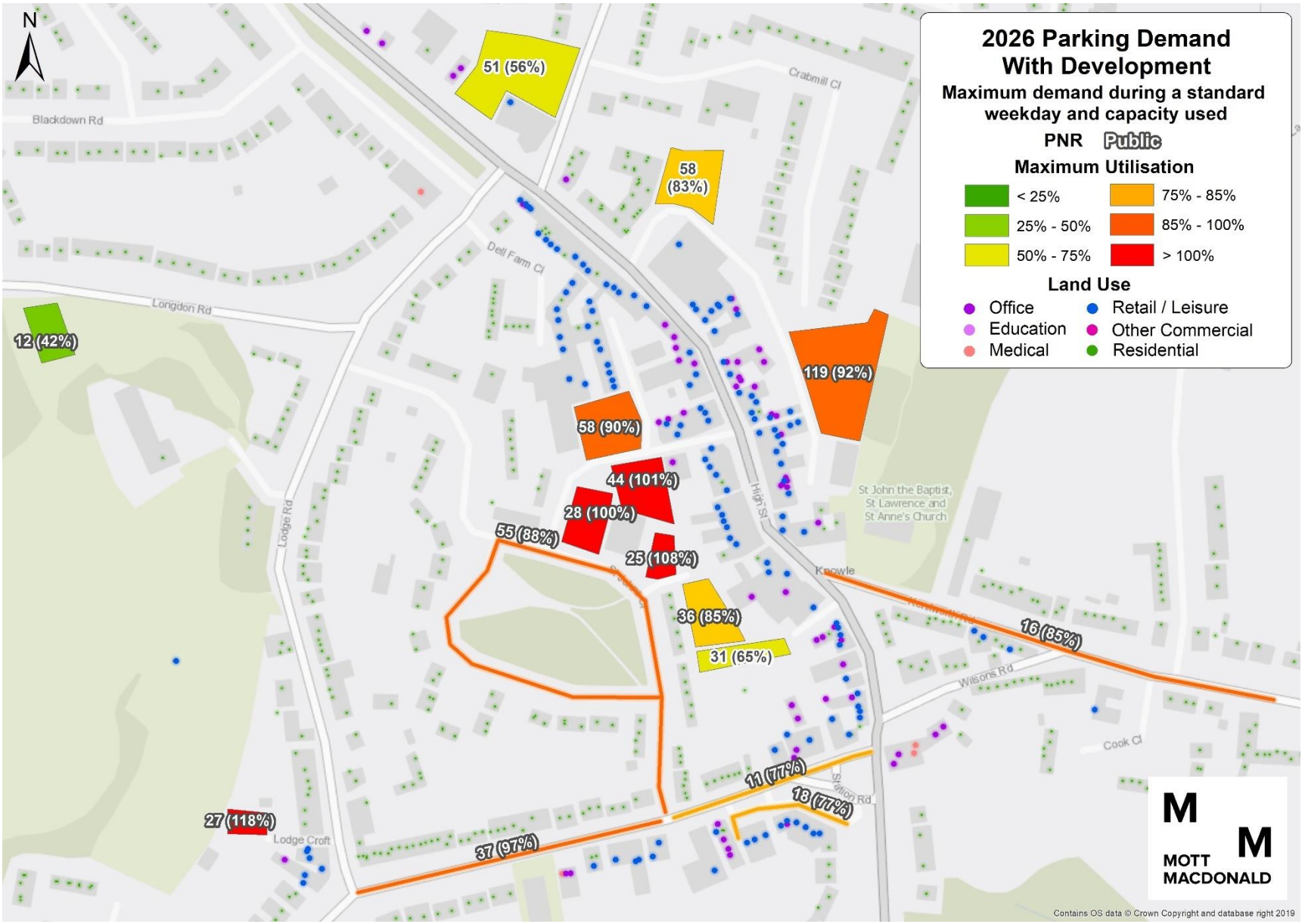
As with the base data, the capacity of the car parks at 12:00 have also been presented to show a snapshot at the peak time over the surveyed locations. The 2026 without and with DLP are shown in Figure 6.18 and Figure 6.19 respectively.

Figure 6.16: Maximum utilisation 2026 without DLP



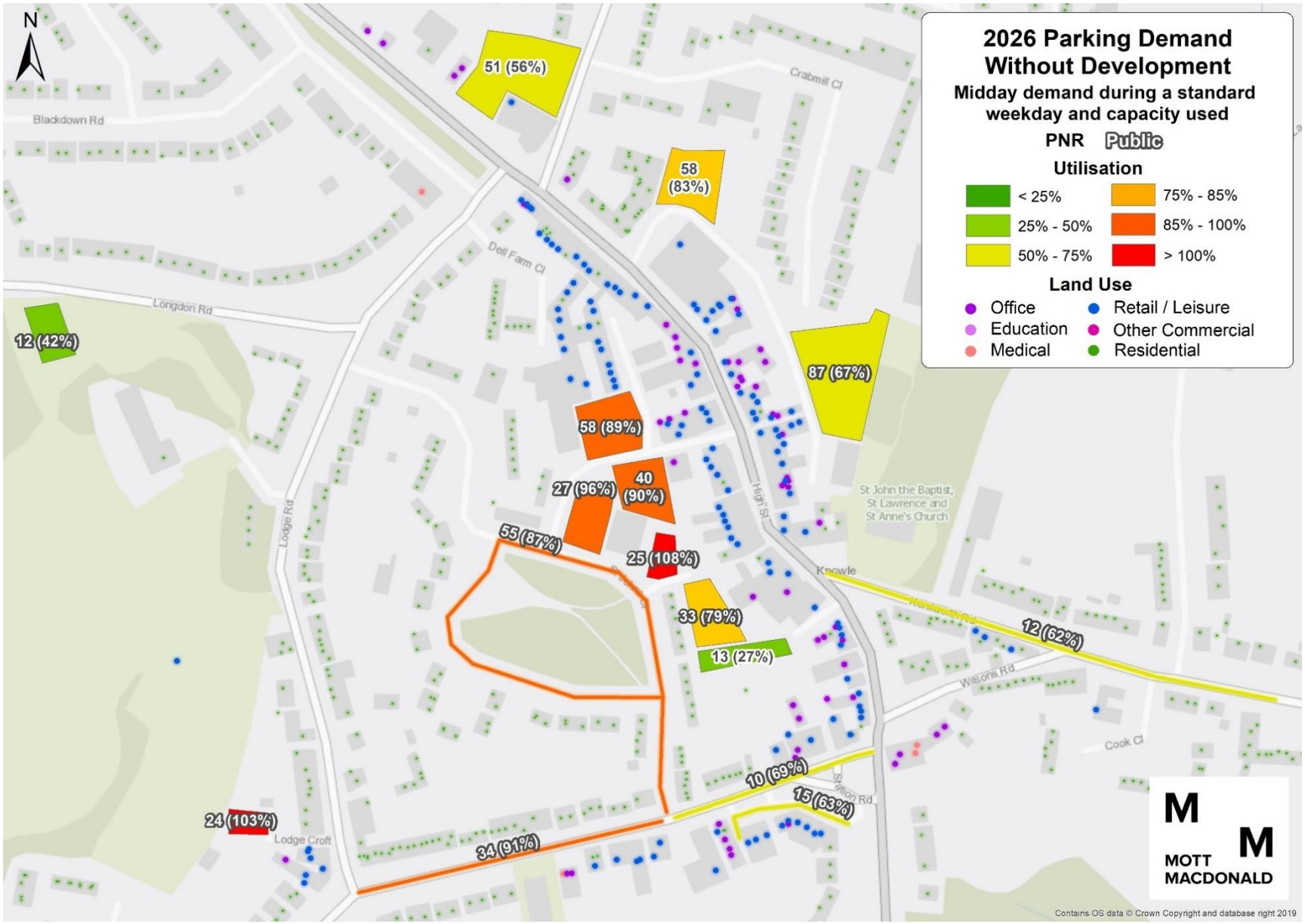
Source: 2017 Parking Survey and TEMPro Growth

Figure 6.17: Maximum utilisation 2026 with DLP



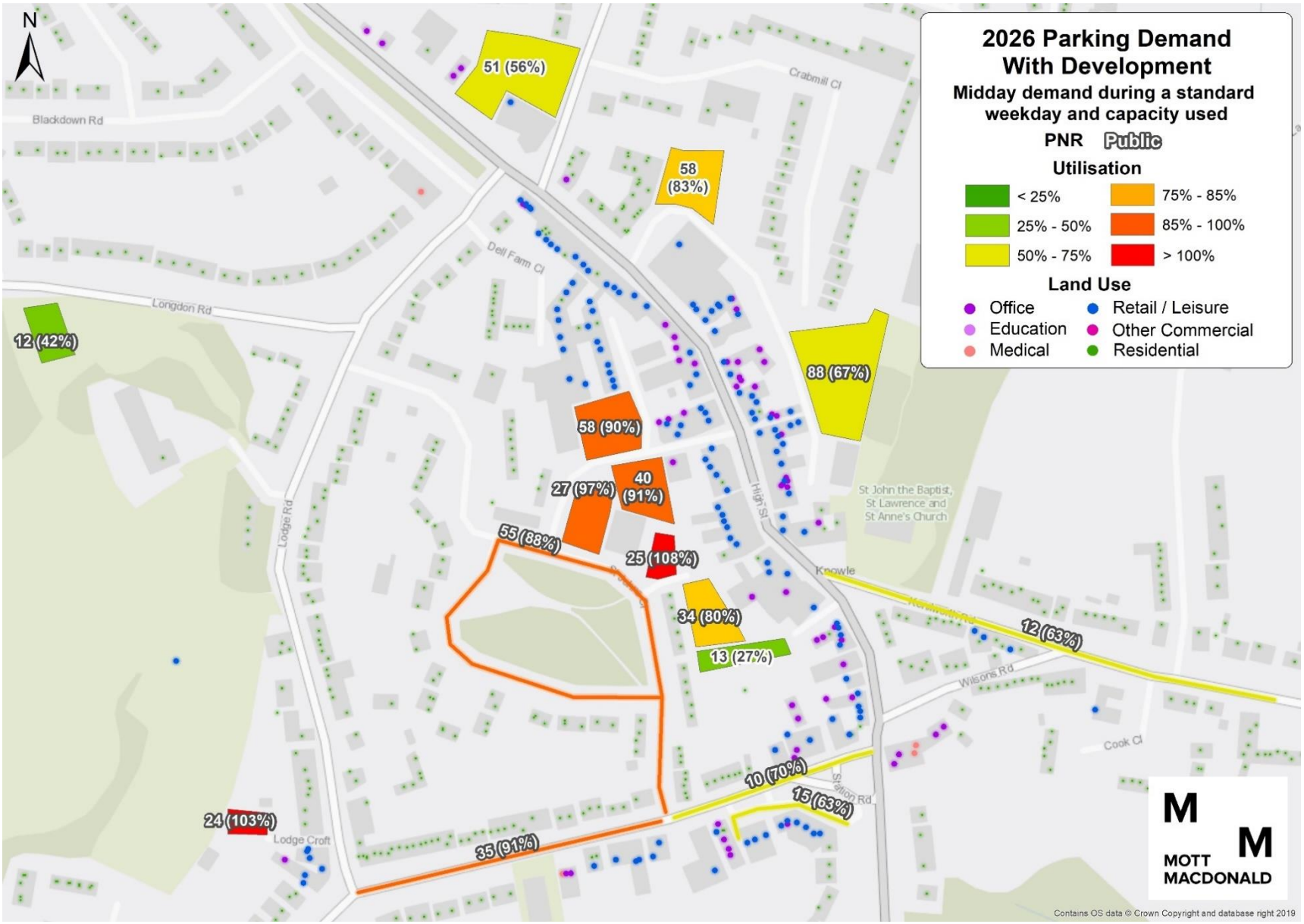
Source: 2017 Parking Survey and TEMPro Growth

Figure 6.18: Midday utilisation 2026 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 6.19: Midday utilisation 2026 with DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 6.16 shows that the majority of the public parking is forecast to have demand of over 85% of capacity in 2036 without DLP development at each of their peaks. Both Loft Croft Car Park and the Village Hall (East) Car Park are forecast to be over absolute capacity, with the rear of the Village Hall Car Park (Site 6) predicted to be at absolute capacity.

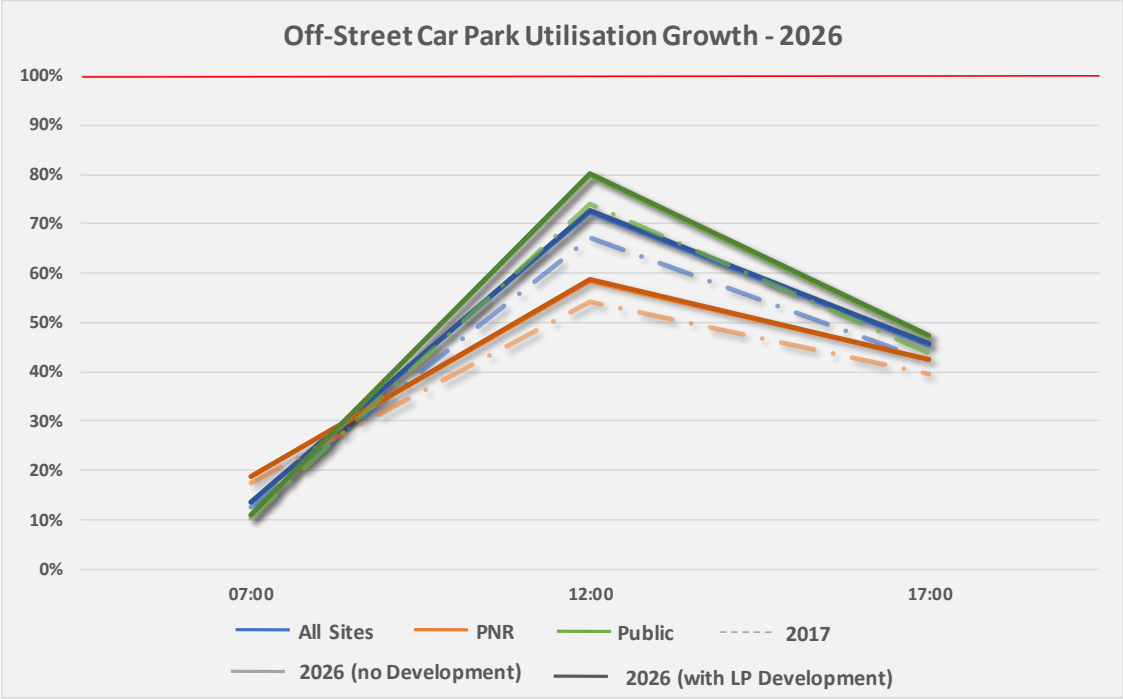
At midday it is forecast in 2036 without DLP development that the Village Hall (East) Car Park will have demand greater than capacity, with three other public car parks (Sites 4, 6 and 7) having demand at 89% of the capacity or over. However, there is still remaining capacity at Sites 5 and 10, as well as at the on-street parking.

With DLP development (shown in Figure 6.17 and Figure 6.19) the demand increases for each of the car parks, but it is a minor additional increase compared to the background growth.

6.7.2.1 Off-street 2026 forecast demand

The following graph shows the overall forecast utilisation in 2026, with and without DLP growth, for off-street parking.

Figure 6.20: 2026 forecast off-street parking utilisation

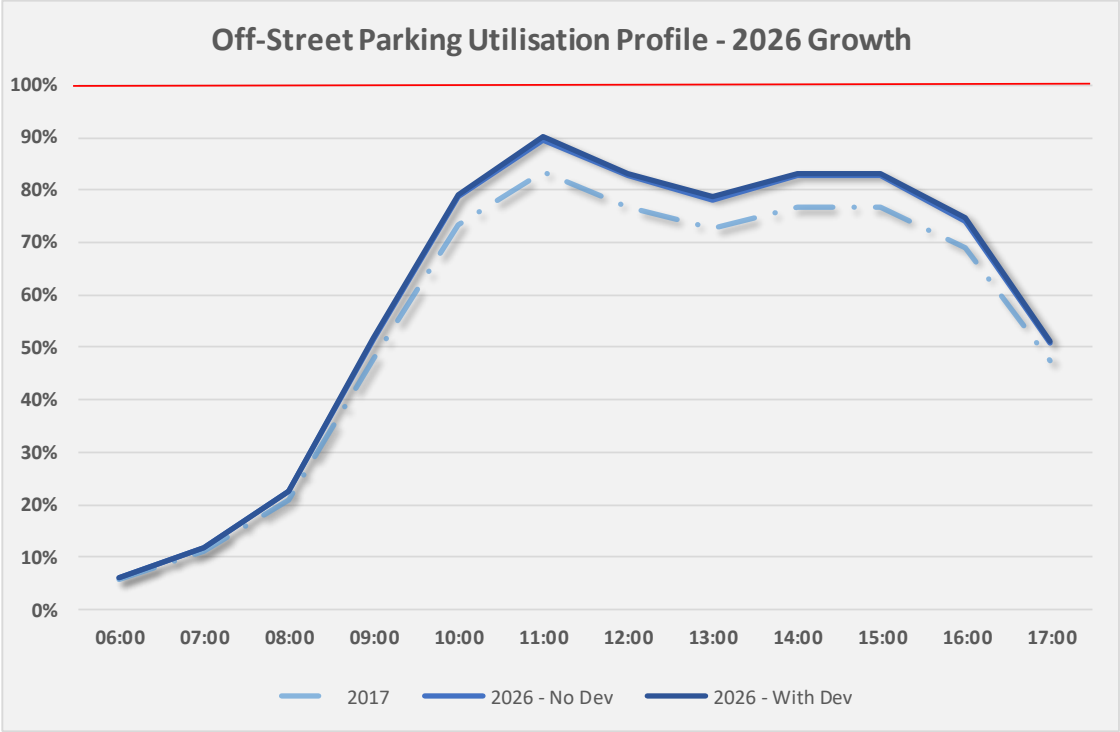


Source: 2017 Parking Survey and TEMPro Growth

This shows that all types of car park in Knowle are forecast to increase in demand, with the major increase caused by background growth. At 12:00 it is forecast that over all of the off-street public parking in Knowle will be around 80% utilised in 2026 with DLP development.

Figure 6.21 shows the forecast daily profile of the public and off-street car parks combined (excluding Knowle park).

Figure 6.21: Off-Street Parking Profile 2026



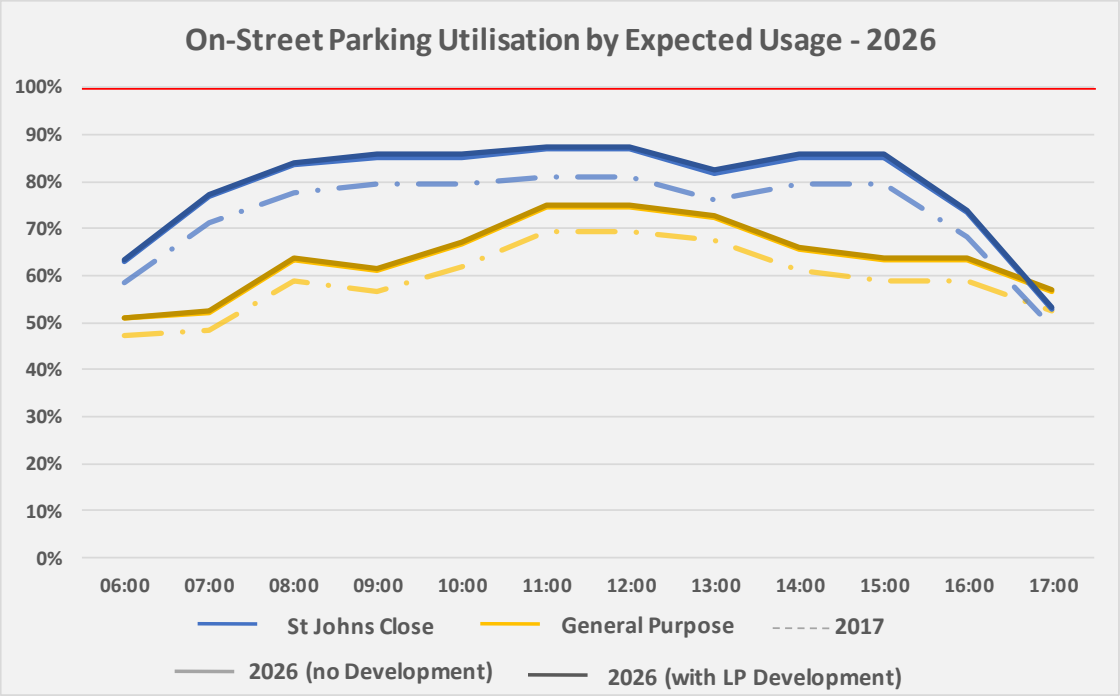
Source: 2017 Parking Survey and TEMPro Growth

This shows that at 11:00, the off-street public parking is forecast to be at 90% capacity. This is mainly caused by background growth, with the DLP having a minor additional impact. Apart from at 11:00, the public parking remains below 85% capacity for the rest of the day.

6.7.2.2 On-street 2026 forecast demand

Figure 6.22 shows the forecast 2026 growth for on-street parking by likely purpose.

Figure 6.22: On-street parking profile by purpose 2026



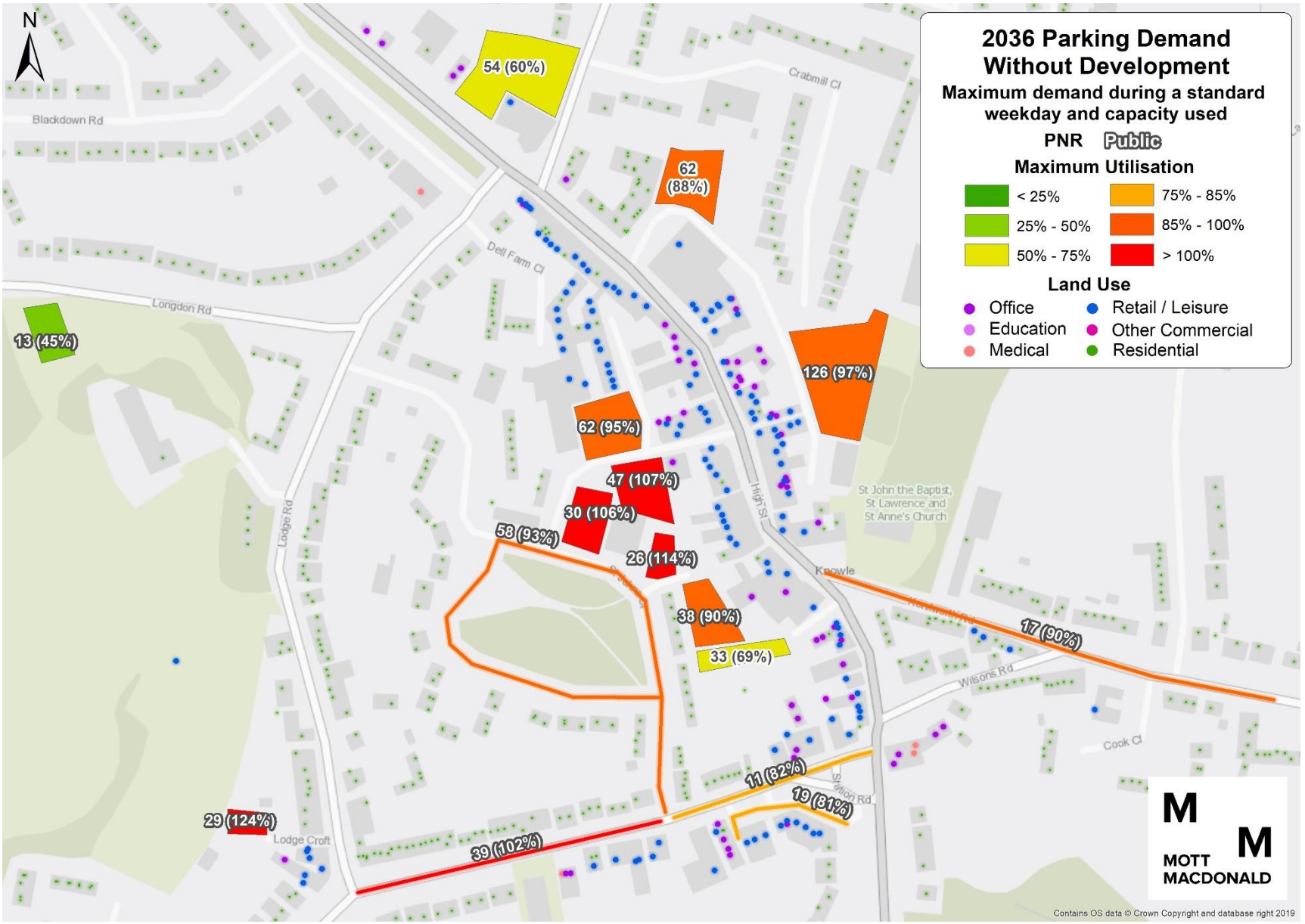
Source: 2017 Parking Survey and TEMPro Growth

This shows that the parking on St Johns Close (assumed to be primarily residential) is forecast to have higher utilisation than the combined general purpose parking. In 2026 with DLP growth, it is predicted that St Johns Close will be above 85% capacity between 10:00 and 15:00 (with the exception of 13:00). In total the general purpose on-street parking is forecast to stay below 75%, with its peak at 11:00 to 12:00.

6.7.3 2036 forecast demand

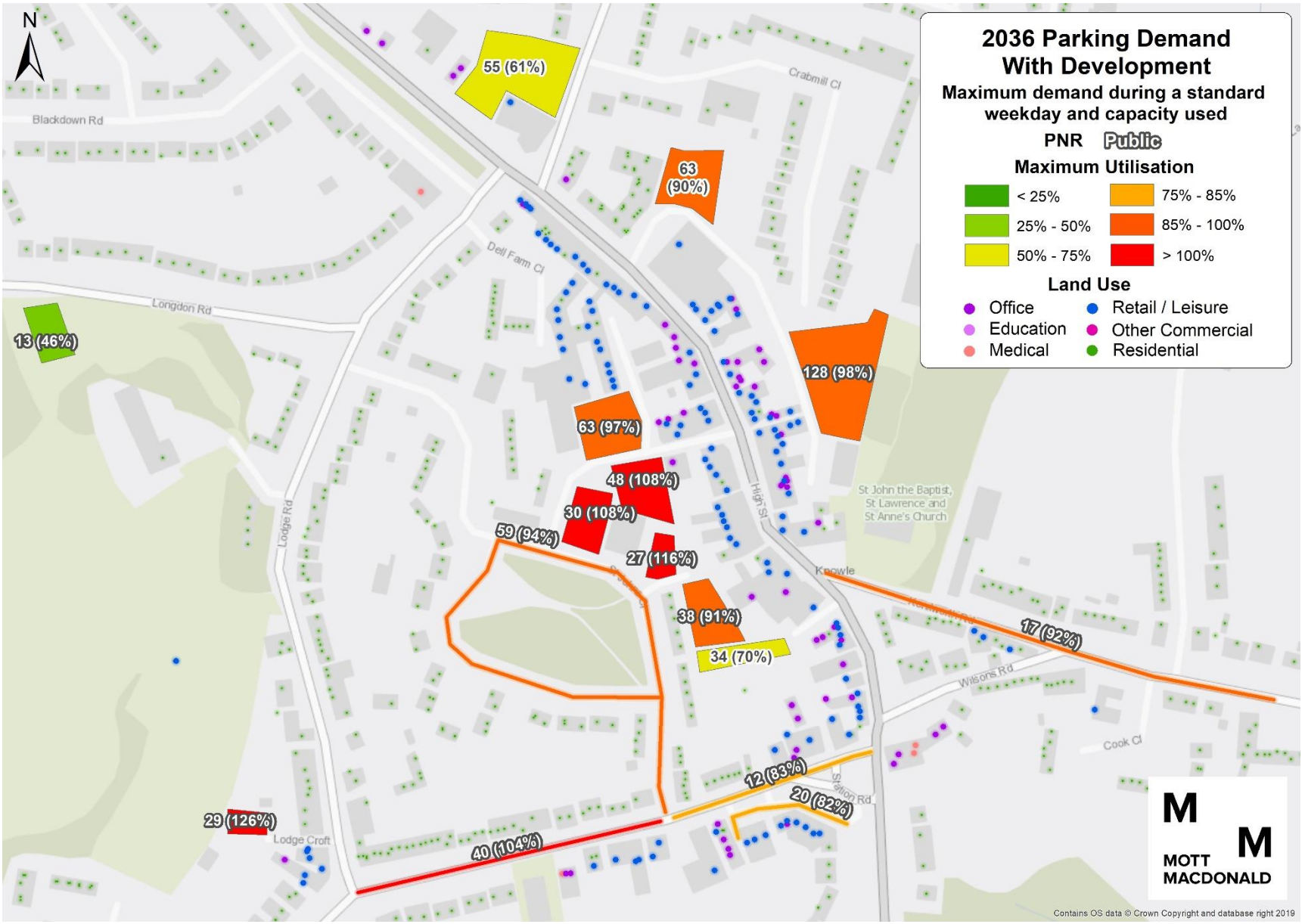
The growth factors shown in Table 4.3 for 2036 have been applied to the surveyed demand, with the 2036 without DLP maximum occupancy results show in Figure 6.23 and the equivalent 2036 with DLP results shown in Figure 6.24. The equivalent figures for the midday utilisation are shown in Figure 6.25 and Figure 6.26.

Figure 6.23: Maximum utilisation 2036 without DLP



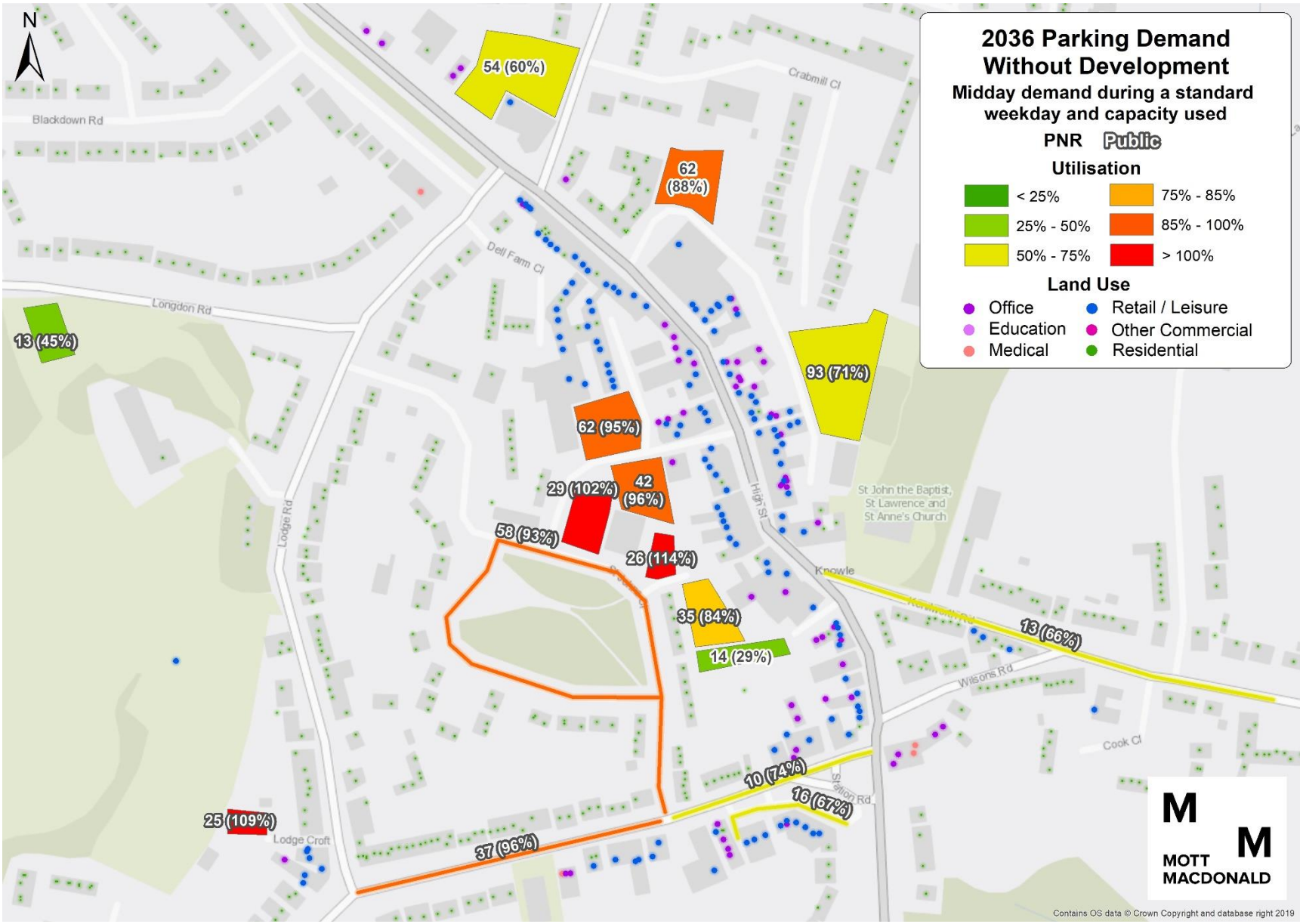
Source: 2017 Parking Survey and TEMPro Growth

Figure 6.24: Maximum utilisation 2036 with DLP



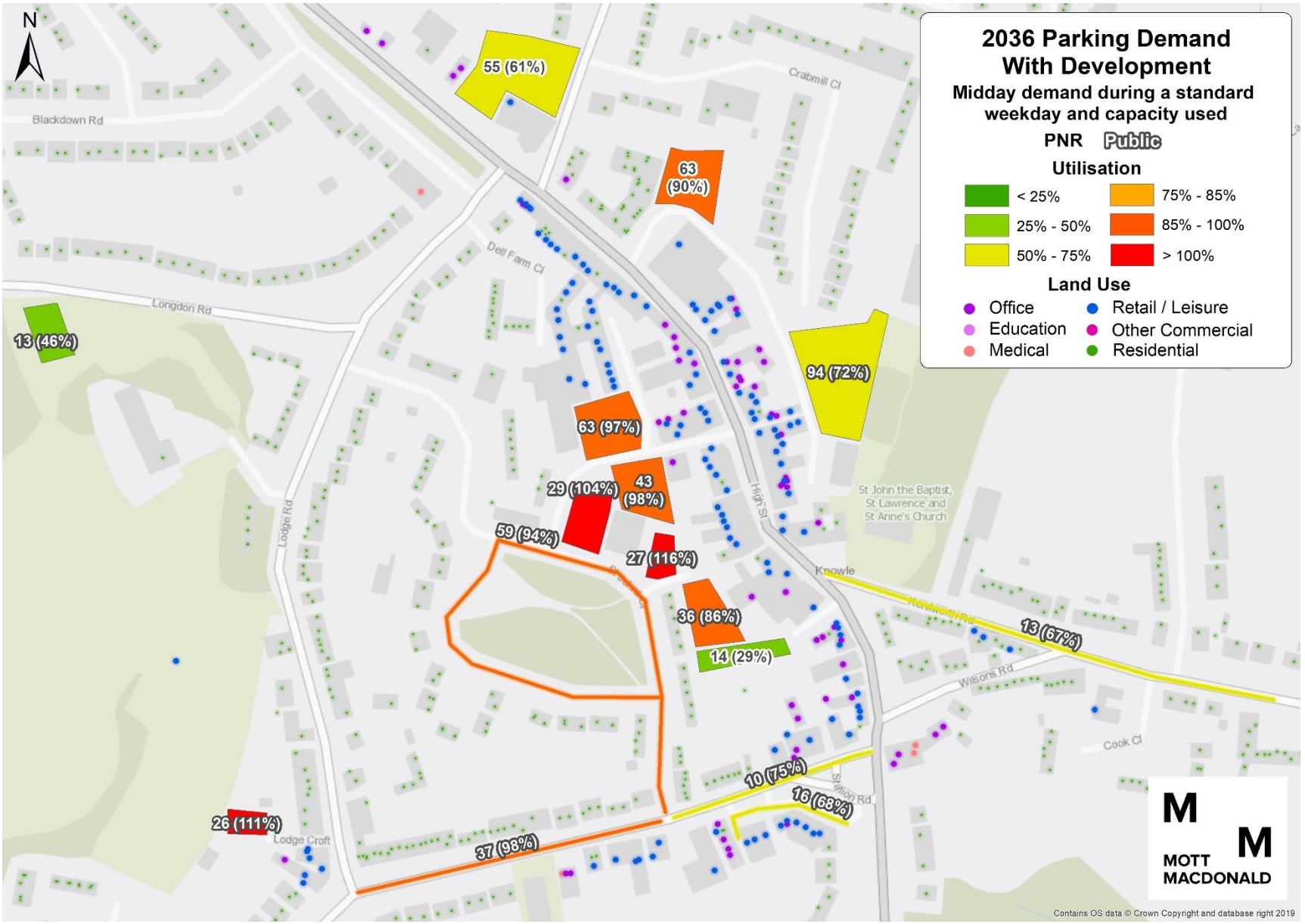
Source: 2017 Parking Survey and TEMPro Growth

Figure 6.25: Midday utilisation 2036 without DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 6.26: Midday utilisation 2036 with DLP



Source: 2017 Parking Survey and TEMPro Growth

Figure 6.23 shows that all of the public off-street car parks in the centre of Knowle are forecast to have demand at 90% of the capacity or higher in 2036 without DLP development, with three car parks (Sites 6, 7 and 8) being over absolute capacity. The on-street parking is also forecast to have high demand, with all locations being over 81% utilised in their peaks. This may cause congestion due to parking searches, especially on Station Road.

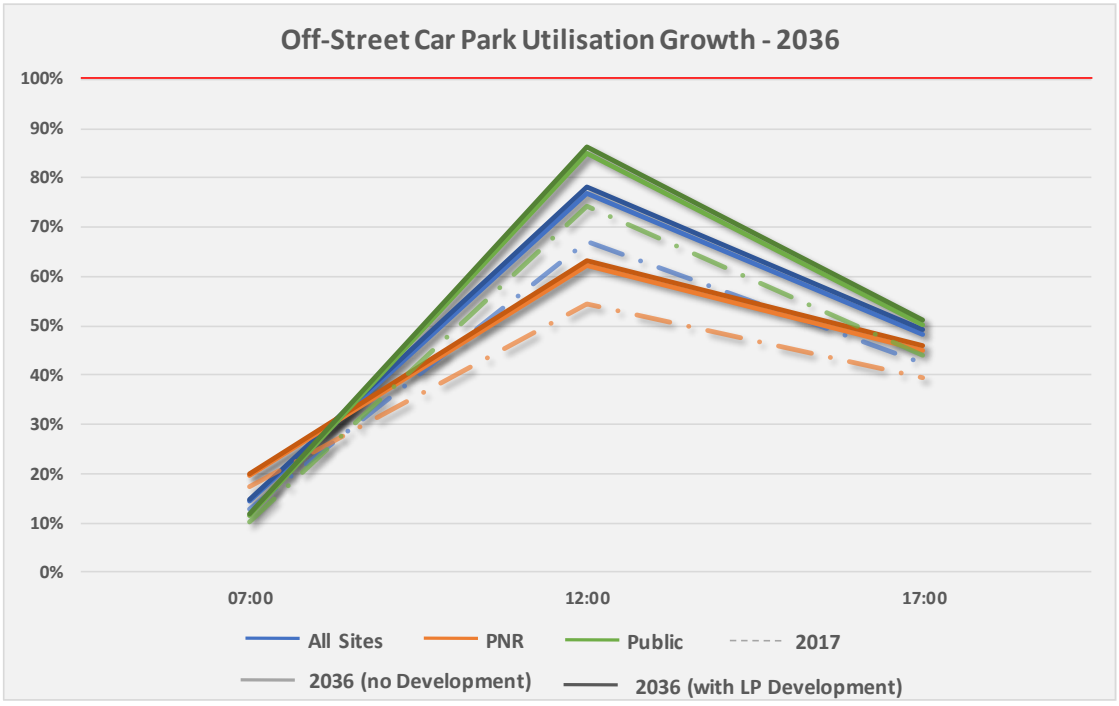
At midday in 2036 without DLP growth (Figure 6.25), four of the public off-street car parks (Sites 4, 6, 7 and 8) are forecast to be at close to or at absolute capacity. However, Sites 5 and 10 are still predicted to have capacity, as are some of the on-street parking locations. St Johns Close is forecast to reach 93% capacity, which leads to many of the car parks in the centre of Knowle to the east of the High Street having high demand. This could lead to delays through parking searches.

The DLP growth is predicted to increase demand for all of the car parks in Knowle. However, the additional increase in demand is minor compared to the background growth.

6.7.3.1 Off-street 2036 forecast demand

The following graph shows the overall forecast utilisation in 2036 with and without DLP growth for off-street parking.

Figure 6.27: 2036 forecast off-street parking utilisation

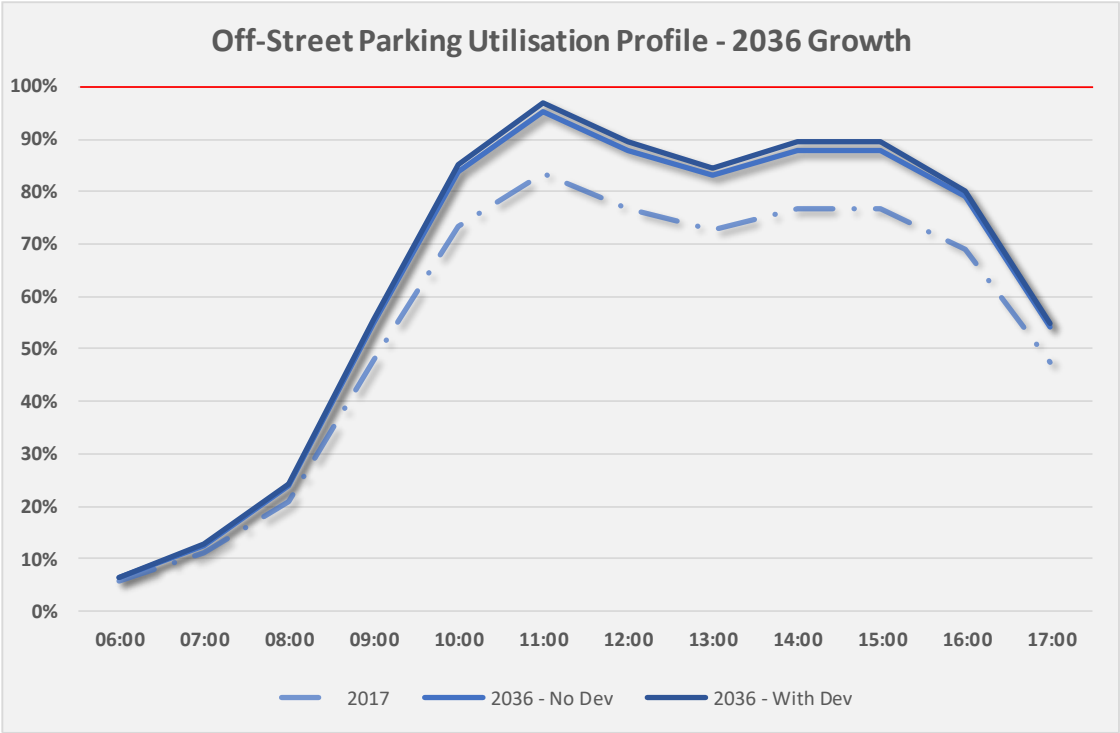


Source: 2017 Parking Survey and TEMPro Growth

This shows that there is expected to be a large increase in demand for all types of car parks in Knowle, but with the primary source of growth coming from background growth rather than from DLP development. At midday, across all of the car parks, public an PNR, the demand is forecast to be 78% of the capacity.

All of the off-street public car parks were surveyed over a 12-hour period, with the peak being at 11:00. Figure 6.28 below shows the forecast demand for public off-street car parks throughout the survey period in 2036 with and without DLP development (excluding Knowle Park).

Figure 6.28: Off-street parking profile 2036



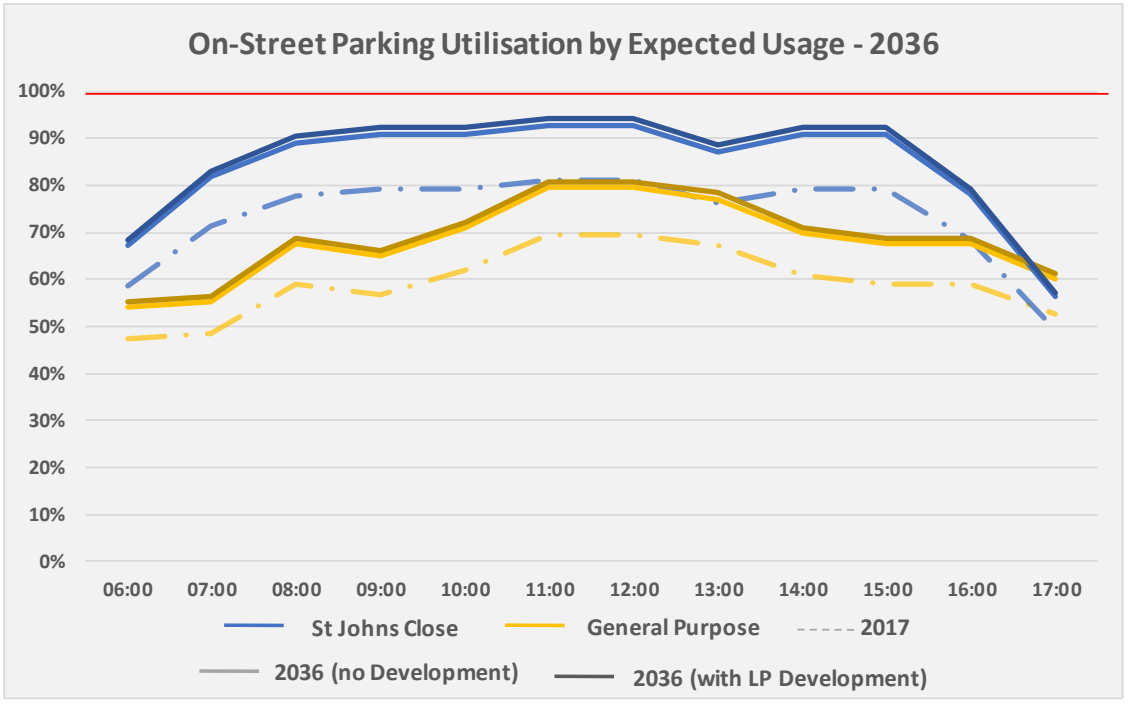
Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2036 with DLP development, the public off-street parking is forecast to be close to absolute capacity. Whilst this is primarily caused by background growth, the DLP developments do have an impact. Even if the car parks are not at absolute capacity, this level of demand is still likely to cause delays at each of the car parks.

6.7.3.2 On-street 2036 forecast demand

Figure 6.29 shows the forecast 2036 growth for on-street parking by likely purpose.

Figure 6.29: On-Street Parking Profile by Purpose 2036



Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2036, even with DLP development, the general purpose on-street parking is predicted to stay within capacity. However, St Johns Close (assumed to be primarily residential) is forecast to reach 94% capacity and be above 90% capacity for most of the time between 08:00 and 15:00.

6.7.4 Summary

TEMPro factors, taking into account the DLP households, have been used to factor up the 2017 survey data to 2026 and 2036. 'Attraction' factors have been applied to all of the car parks.

Table 6.6 provides a summary for each parking location, showing the demand at the peak time throughout the day. This is over 2017, 2026 and 2036.

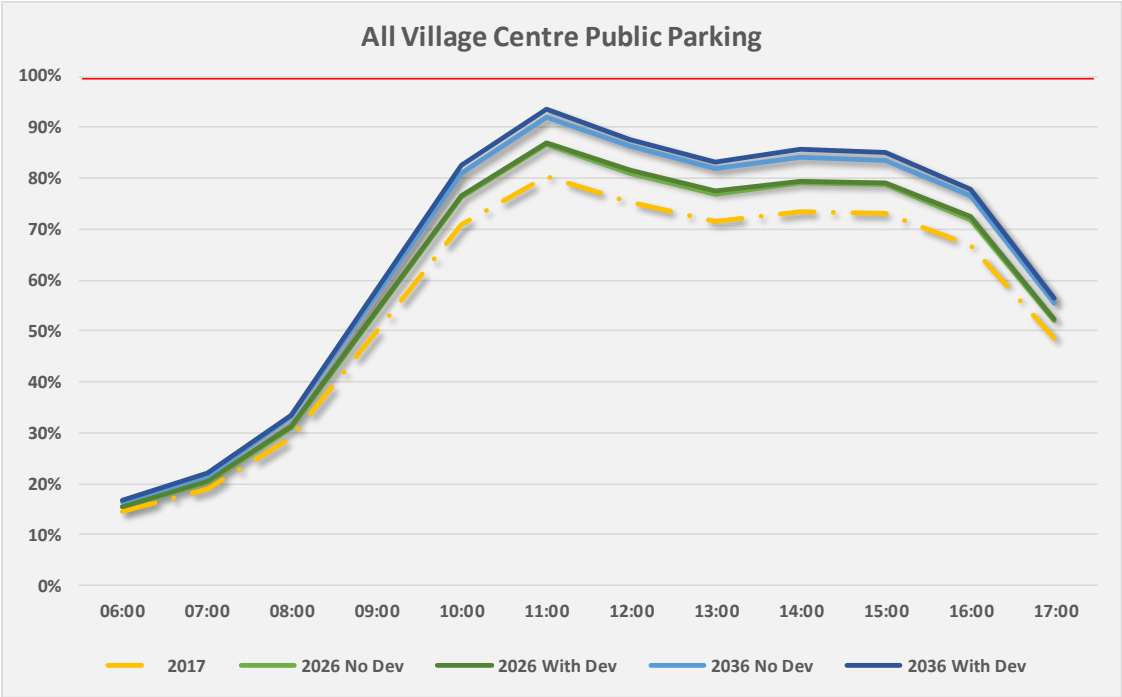
Table 6.6: Knowle peak demand in 2017, 2026 and 2036

				Demand (at peak)					Available Spaces (at peak)				
					2026		2036			2026		2036	
No.	Location	Capacity	Peak Time	2017	Base	DLP	Base	DLP	2017	Base	DLP	Base	DLP
Off-Street Parking													
1	Knowle Park	28	12:00*	11	12	12	13	13	17	16	16	15	15
2	Toby Carvery	90	12:00*	47	51	51	54	55	43	39	39	36	35
3	Greswolde Arms Hotel	70	12:00*	54	58	58	62	63	16	12	12	8	7
4	Tesco Metro	65	10:00	54	58	58	62	63	11	7	7	3	2
5	Rear of Greswolde Arms	130	11:00	110	118	119	126	128	20	12	11	4	2
6	Rear of Village Hall	44	14:00	41	44	44	47	48	3	**0**	**0**	**-3**	**-4**
7	Village Hall (West)	28	15:00	26	28	28	30	30	2	**0**	**0**	**-2**	**-2**
8	Village Hall (East)	23	12:00	23	25	25	26	27	0	**-2**	**-2**	**-3**	**-4**
10	NatWest Bank	42	11:00	33	35	36	38	38	9	7	6	4	4
11	Red Lion pub	48	16:00	29	31	31	33	34	19	17	17	15	14
12	Lodge Croft	23	09:00	25	27	27	29	29	**-2**	**-4**	**-4**	**-6**	**-6**
On-Street Parking													
9	Kenilworth Road	19	08:00	15	16	16	17	17	4	3	3	2	2
13	Station Road (west of St Johns Close)	38	06:00	34	37	37	39	40	4	1	1	**-1**	**-2**
16	Station Road (east of St Johns Close)	14	10:00	10	11	11	11	12	4	3	3	3	2
17	Station Road Frontages Access Road	24	10:00	17	18	18	19	20	7	6	6	5	4
18	St Johns Close	63	11:00	51	55	55	58	59	12	8	8	5	4

* Only surveyed at 07:00, 12:00 and 17:00

Figure 6.30 below shows the forecast demand over all of the public parking near the High Street, both on-street and off-street. This includes Sites 4, 5, 6, 7, 8, 9, 10, 13, 16 and 17.

Figure 6.30: Forecast public parking utilisation in Knowle village centre



Source: 2017 Parking Survey and TEMPro Growth

This shows that at 11:00, the public parking is forecast to be close to absolute capacity in 2036 with DLP development. However, the majority of the growth is caused by background growth rather than the DLP. Between 10:00 and 15:00 the public parking is predicted to be over 82% capacity in 2036 with DLP growth.

In 2026 there is a smaller impact on demand, with the DLP growth having even less of an additional impact compared to 2036.

6.8 Mitigation

Figure 6.30 shows that public parking is predicted to operate close to absolute capacity in 2036 with the Local Plan developments. However, the majority of growth is from background growth, with the developments only having a marginal additional impact.

The off-street public car parks are already managed by parking tariffs and there are privately owned car parks at the Toby Carvery and the Greswolde Arms which charge for users that are not customers and so could act as ‘over flow’ capacity at peak times. However, as these are not owned by the Council, there is a risk that they could stop offering the use of the car parks for the general public in future.

It is noted that noticeably higher tariffs rates have been applied to the off-street car parks since the surveys were undertaken in 2017, so these may have mitigated the capacity issues observed by the surveys. However, if this is not the case, then it is recommended that the charges are increased further to deter long-stay users, as well as all users that could use alternative modes for the journey.

The survey results show that some public car parks are utilised more than others, even with the same tariffs in place. It was noted in the consultation that signage for parking is an issue. Therefore, smart signage could be introduced to allow demand to be distributed appropriately throughout the car parks.

There are a number of residential streets in the area, including St Johns Close and Lodge Road. St Johns Close is forecast to be close to capacity in 2036, so increasing tariffs at nearby car parks may result in this road being over absolute capacity. It is recommended that these are monitored if tariffs are raised to determine if TROs are required.

The indicative cost for increasing the tariffs at the pay and display car parks is £37,000. This cost includes the TRO to allow enforcement of parking charges and parking surveys bi-monthly for one year. It excludes maintenance costs and issuing and management of permits. It also assumes that the current pay and display machines will be maintained.

The indicative cost for smart signage is £380,000. This includes 10 variable message signs and the management system to inform the signs. It does not include any maintenance.

Both of these costs should only be used to give a rough estimate and should be updated in the next stage of work once the mitigation has been finalised.

7 Next steps

7.1 Introduction

The high-level nature of this study and the influence of Covid-19 have resulted in some limitations with the analysis in this study. This means that there are certain steps that could be taken following this study to investigate the parking conditions in each of the study areas further.

7.2 Surveys

7.2.1 Saturday surveys

When Mott MacDonald was commissioned in 2020 to update the parking study, Saturday surveys were going to be undertaken to add to the analysis. Due to Covid-19 these have not been able to go ahead. It is recommended that when traffic conditions are back to 'neutral', Saturday surveys should be conducted.

7.2.2 Balsall Common surveys

The Royal British Legion Car Park in Balsall Common has introduced charges since the surveys were undertaken in 2017. This is likely to have impacted not only the parking in this car park but the nearby car parks as well due to the high demand for the rail station.

It is recommended that when traffic conditions have returned to 'neutral' levels, new 12-hour surveys are undertaken at parking near the station. This would be at Berkswell Station Car Park, The Royal British Legion and on Hallmeadow Road. If lots of parking has been displaced from The Royal British Legion then there may be additional parking on Station Road, which should also be surveyed.

7.2.3 Dickens Heath surveys

In the 2017 surveys, it was observed that Whitlocks End Rail Car Park was almost at capacity. However, Tilehouse Lane was not surveyed to determine if there was any on-street parking caused by over-flow from the car park. Therefore, we recommend surveys are also undertaken here.

7.2.4 Knowle surveys

In Knowle, there have been significant changes to parking charges at many of the car parks since the surveys were undertaken in 2017. These were planned to be surveyed in 2020 but were unable to happen due to Covid-19.

The following car parks have had a change in parking control or tariff:

- Site 2 - Toby Carvery
- Site 3 - Greswolde Arms Hotel
- Site 4 - Tesco Metro
- Site 5 - Rear of Greswolde Arms
- Site 6 - Rear of Village Hall
- Site 7 - Village Hall (West)
- Site 8 - Village Hall (East)

- Site 10 - NatWest Bank
- Site 11 - Red Lion pub

Therefore, it is recommended that new 12-hour occupancy surveys are undertaken at these car parks when traffic levels are back to 'neutral'.

7.3 Trip purpose

In this study, a general TEMPro factor has been applied to the car parks. However, further analysis could be undertaken as to the purpose of the trips, as well as their origins. This would allow for more specific growth factors to be applied to the car parks, with further analysis as to the DLP impact.

The strategic DLP traffic model (as part of PRISM) could be utilised to assist with this analysis.

7.4 Accessibility to village centres

This study has highlighted that a large portion of the increased demand in all of the study areas is derived from background growth, which will need to be mitigated against. Whilst this study includes a high-level look at the infrastructure for alternative modes of travel, it is recommended that this is investigated further.

It is likely that improving accessibility to the village centres will help mitigate the future increase in demand.

Additionally, the DLP developments will need to have good accessibility to the village centres and rail stations in order to limit the DLP growth at car parks. For example, Site 4 in Dickens Heath is directly next to Whitlocks End Rail Station, which is almost at absolute capacity. It will be crucial that walking and cycling links are provided to the station to prevent increased demand at the car park. Improvements from Dickens Heath to the station could also be investigated further, to promote active travel to the station and reduce the parking demand.

7.5 Costings

The cost of the mitigation has been calculated at a high level and these should therefore be refined further once the mitigation packages have been finalised.

8 Summary

8.1 Introduction

Mott MacDonald weas commissioned by Solihull Metropolitan Borough Council (SMBC) in 2017 to undertake a car parking study for the areas of Balsall Common, Dickens Heath and Knowle. Mott MacDonald has since been commissioned by SMBC to update this report in line with the updated Draft Local Plan (DLP).

The objective of the study is to determine current parking supply and demand in each of the villages and to identify any impacts future DLP and non-DLP development will have on capacity. Recommendations will also be made as to how to minimise any impacts found.

8.2 Policy

Parking policy at the national, regional, and local level all work in tandem to support the various needs for sustainable development, reducing the need to travel by car whilst maintaining the vitality and viability of town centres. These key objectives are common to all three local centres and indeed many more up and down the country.

Furthermore, the conjunctive needs to promote sustainability and healthy means of travel, reduce town centre pollution, and maintain environmental quality are considered equal to supporting the provision of car parking, so as not to discourage local businesses from locating there, or local people from shopping there.

Ultimately, car parking policy at the local level must take all these factors into account and decide levels of enforcement, capacity, and the promotion of alternatives on individual merit, whilst the policy outlined in this chapter has been applied to inform the recommendations for Balsall Common, Dickens Heath, and Knowle.

8.3 Overarching methodology

Whilst each of the study areas have been analysed and reported on individually, the methodology behind the analysis has been the same.

8.3.1 Car park selection

A robust assessment has been undertaken of the current off-street and on-street car parking provision in each of the three districts. This was initially achieved using the SMBC website, Parkopedia website and Google Maps.

Following this initial review, the study area has been surveyed by Mott MacDonald staff to identify any additional car parks, obtain further details of car park space types and restrictions, and make estimates as to the level of on-street parking provision provided.

8.3.2 Surveys

Three types of survey were undertaken for this study. These were:

- Car park occupancy
- On-street parking surveys, and
- Questionnaires

The car park and on-street surveys were carried out by Tracsis Plc, with weekday counts undertaken between Tuesday 31 October 2017 and Thursday 2 November 2017, three neutral weekdays in a neutral month. The recording of number plates has been used to calculate the turnover between sites, enabling the calculation of parking duration and the total number of vehicles utilising the facilities

As part of updating the analysis in 2020, surveys were going to be undertaken on a Saturday and on a neutral weekday at any locations where tariffs had changed. However, due to Covid-19 these surveys were not able to take place.

8.3.3 Future year growth

In order to determine future parking demand in each of the areas, a growth rate has been calculated using the Trip End Model Presentation Programme (TEMPro).

A base of 2017 was used and then growth factors were calculated for 2026 and 2036. For the without DLP scenario, the increase in households as part of the DLP were removed from the TEMPro assumptions. Then for the with DLP scenario, the DLP households were added to the TEMPro assumptions.

For the majority of the car parks, the 'Attraction' factor has been applied using the 'Car Driver' mode in TEMPro. However, within this study there are station car parks, which are more likely to be impacted by an increase in 'Production'. Therefore, parking associated with rail has had a 'Production' factor applied associated with the 'Rail / Underground' mode in TEMPro.

8.4 Balsall Common

8.4.1 Parking overview

26 parking areas were located in Balsall Common, with the majority of the off-street parking being PNR. The main public parking is at site 3 (the Library Car Park) in the village centre and at Berkswell Station (Site 14). Both of these public off-street car parks have no restrictions, along with most of the on-street parking. The marked on-street parking on Station Road by the retail has a 2-hour maximum stay limitation.

It should be noted that the fee at the Royal British Legion (Site 13), of £1 per hour, has been implemented since the surveys were conducted.

8.4.2 Alternative modes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Balsall Common. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on.

On a Mott MacDonald site visit some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- The pedestrian route between the A452 Kenilworth Road and Balsall Common Library car park is dark with inadequate lighting
- The pedestrian footpath between the A452 Kenilworth Road and Balsall Common Sports Centre is dark and secluded, with inadequate lighting, and
- Car parking on Hallmeadow Road is on the opposite side of the carriageway to footway provision

8.4.3 Consultation

Within Balsall Common, seven of the responding businesses have on-site parking, with a number of these having capacity issues so are still reliant on public parking at peak times. Each of the eight businesses that responded stated there is not enough parking provision, but responses were mixed when asked whether the existing parking provision is a help or hindrance to their business.

One issue cited by businesses is that there is a lack of parking in the village centre, particularly surrounding the Station Road shops, leading to the area becoming congested.

8.4.4 Existing parking demand

Survey data from 2017 was used to determine the current parking demand in Balsall Common due to new surveys not being able to take place due to Covid-19. Since the surveys, The Royal British Legion car park has implemented parking tariffs, which is likely to have impacted the parking in that car park and on nearby parking levels.

There are two areas in Balsall Common that see high parking demand, at Berkswell Station and in the village centre near the retail on Station Road. Around the station, the Station Car Park, The Royal British Legion and the on-street parking on Hallmeadow Road already experience over 90% utilisation.

In the village centre, the marked on-street parking on Station Road reaches capacity and the Library Car Park reaches around 75% capacity. There are a number of cars parked in the Library Car Park that are parked for over eight hours.

8.4.5 Local Plan growth

Within Balsall Common there are six proposed DLP developments. The build-out projection for each site in 2026 and 2036 is shown below.

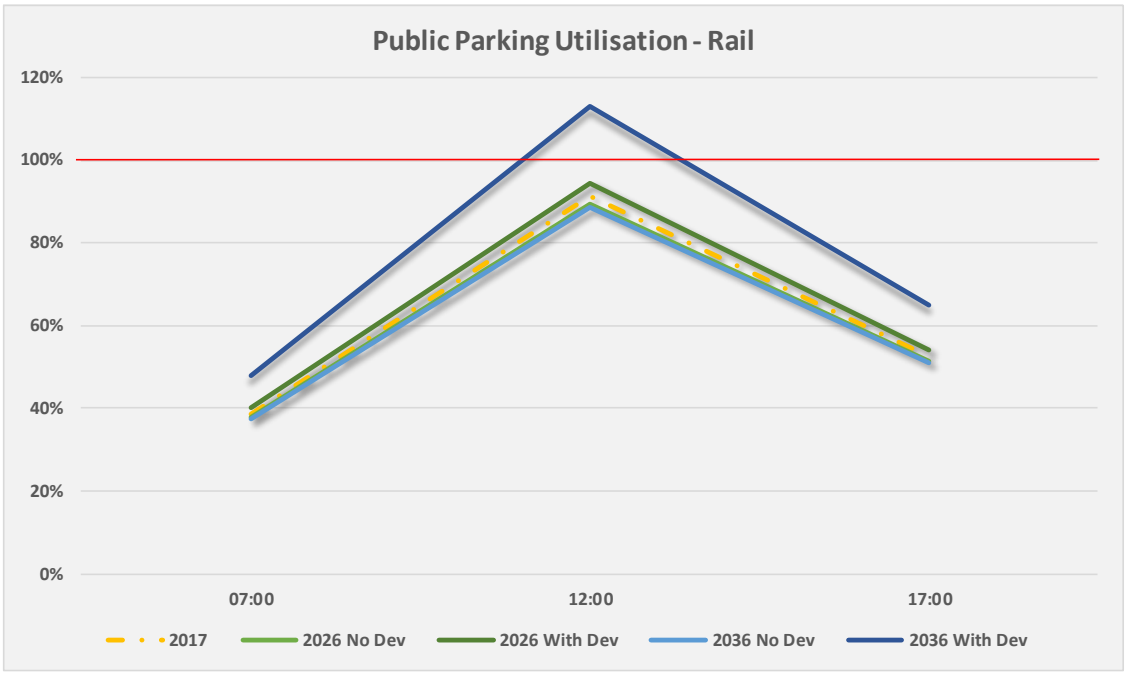
Table 8.1: Balsall Common DLP development projection

Site number	No. of dwellings	Built by 2026	Built by 2036
1	875	0	875
2	110	110	110
3	120	120	120
21	200	0	200
22	230	77	230
23	80	0	80
Total	**1615**	**307**	**1615**

8.4.6 Future parking demand

In both 2026 and 2036, the area with the most significant DLP impact is by Berkswell station. Figure 8.1 shows the forecast utilisation for the public station car parks, both on-street and off-street.

Figure 8.1: Forecast public parking utilisation for rail

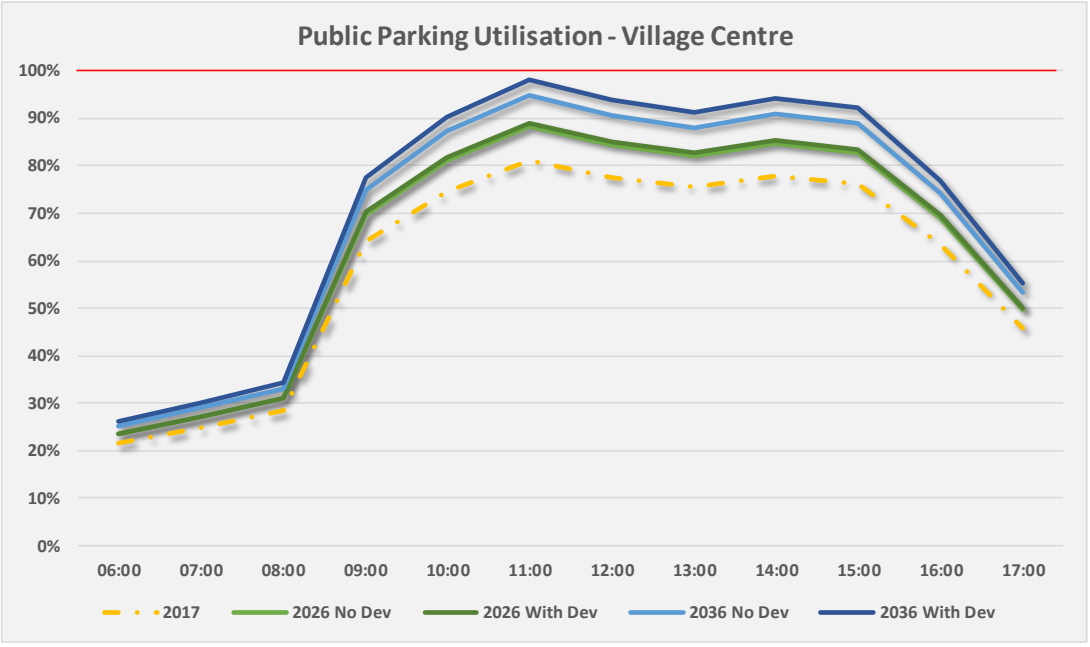


Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2036 the public parking at the station is predicted to be over absolute capacity and this is caused by DLP growth.

The other part of Balsall Common that sees high growth is in the village centre. Figure 8.2 shows the utilisation of the public parking, both on and off street, in Balsall Common Village Centre.

Figure 8.2: Forecast public parking utilisation in Balsall village centre



Source: 2017 Parking Survey and TEMPro Growth

This shows that in 2026 the growth is primarily background growth, with the DLP having lower additional impact. However, in 2036 DLP growth has more of an impact and the overall public parking is forecast to almost be at absolute capacity.

8.5 Dickens Heath

8.5.1 Parking overview

There are 22 parking areas located in Dickens Heath, with most of these being public car parks without any parking controls. The two main off-street car parks in the village centre, Site 3 and Site 6, are a mixture of public and private. Some of the parking is restricted, but with areas of unrestricted public parking.

The majority of the on-street parking is assumed to be for residents, with some general purpose parking on Main Street between Dickens Heath Road and Gorcott Lane.

Outside of the village centre there is a public car park at Whitlocks End Rail Station, with a capacity of 332 spaces.

8.5.2 Alternative modes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Dickens Heath. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on.

On a Mott MacDonald site visit, some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- The pedestrian route along Tythe Barn Road between Whitlocks End rail station and Dickens Heath is poorly lit with narrow footways. There is a stretch of road without any footway close to the station.
- There is no pedestrian crossing between the car parking on Three Acres Lane and Dickens Heath Community Primary School. Parked cars may obstruct pedestrians, causing a safety risk.
- The underpass between the car park, behind Mortons Kitchen and Main Street, is dark with inadequate lighting.
- Main Street is very busy with cars parked along its whole length in undesignated spaces on the east side. Due to the width and aesthetics of the road, vehicles are parking on pedestrian facilities causing potential obstructions.
- There are no pedestrian footways on Old Dickens Heath Road beyond the bollards.

8.5.3 Consultation

Out of the nine responses in Dickens Heath, five businesses rely on public parking for staff and customers whilst four have on-site parking available. The businesses with private parking have capacity issues and depend on public parking.

All the respondents stated there is not enough parking provided and of these, eight rated existing parking provision to be either a minor or major hindrance to their business.

Similar comments were made by several businesses in Dickens Heath, particularly that there are no restrictions on private streets (Main Street etc). and that the newly built town centre residential developments have resulted in not enough public spaces and some residents make use of the public spaces.

8.5.4 Existing parking demand

The area that sees the highest utilisation in Dickens Heath is at Whitlocks End Rail Station, which is almost at absolute capacity. At midday 321 of its 332 spaces are occupied, which is likely to be causing delay from parking searches.

In the village centre, Site 3 is at 96% capacity at 06:00 and then decreases in utilisation throughout the day; though it is at 85% capacity at 11:00. Between 09:00 and 15:00, around 35% of the spaces are used by cars staying eight hours or over. Throughout the day the number of spaces used by cars staying over eight hours is always above 25%.

Site 6, also in the village centre, is at its peak utilisation of 73% at 11:00, followed by lower peaks at 06:00 and 17:00. The car park is used by vehicles staying for varied amounts of time.

The residential on-street parking has spare capacity throughout the day. The utilisation of Main Street (north of Gorcott Lane) fluctuates during the day, with the peak at 11:00. The majority of vehicles parked on Main Street are staying for two hours or less. The main peaks are primarily caused by vehicles staying for one hour or less, but there are also vehicles parked on Main Street for between six and seven hours.

8.5.5 Local Plan growth

Around Dickens Heath there are four proposed DLP developments. The build-out projection for each site in 2026 and 2036 is shown below.

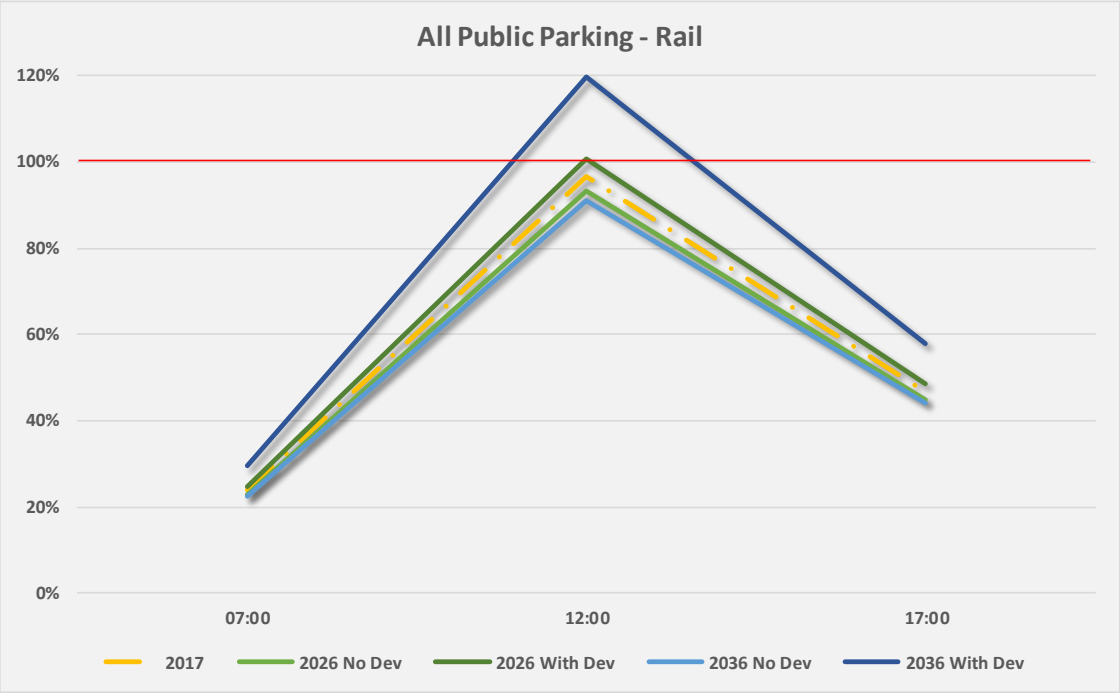
Table 8.2: Dickens Heath DLP development projection

Site number	No. of dwellings	Built by 2026	Built by 2036
4	350	100	350
11	640	640	640
12	1000	250	1000
26	450	100	350
Total	**2440**	**1090**	**2340**

8.5.6 Future parking demand

In both 2026 and 2036, the area with the most significant DLP impact is by Whitlocks End Station. Figure 8.3 shows the forecast utilisation for the station car park.

Figure 8.3: Forecast parking utilisation for rail

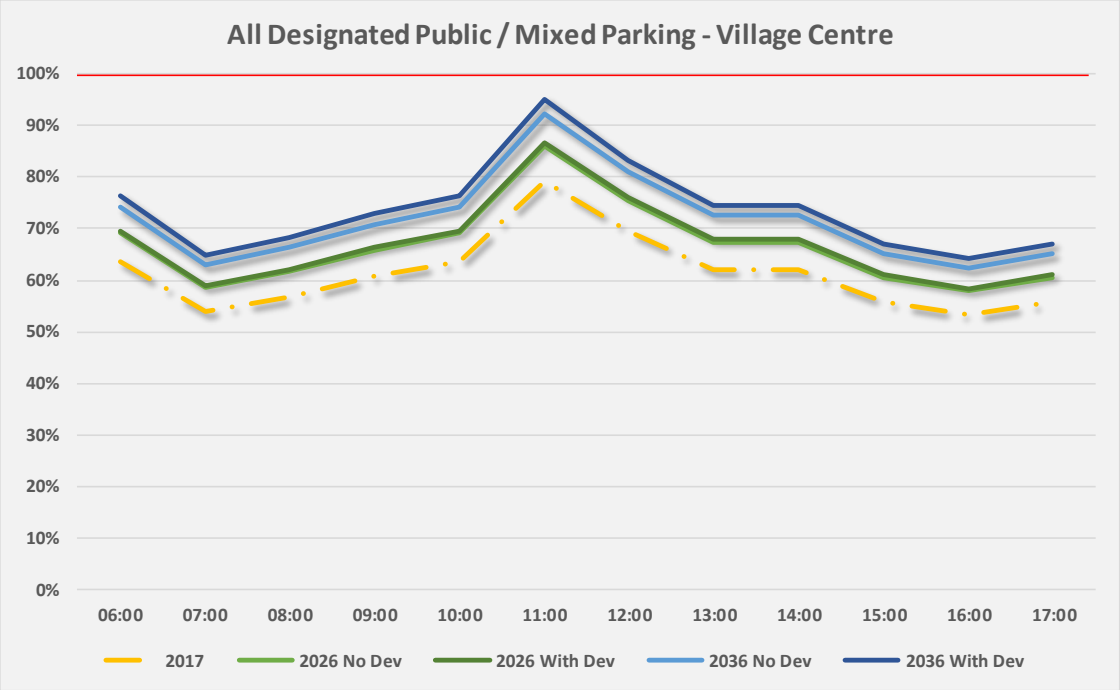


Source: 2017 Parking Survey and TEMPro Growth

This shows that the DLP is causing the growth at the station and that in 2026 it is already forecast to be over absolute capacity. In 2036, the demand is predicted to be around 120% of the capacity.

Parts of the village centre are forecast to be close to or over absolute capacity in both 2026 and 2036. Figure 8.4 shows the forecast utilisation for the mixed-use parking in Dickens Heath village centre (Site 3, Site 6 and Main Street north of Gorcott Lane) for 2026 and 2036. This is excluding all on-street parking that is likely used primarily for residential parking.

Figure 8.4: Forecast mixed-use public parking utilisation



Source: 2017 Parking Survey and TEMPro Growth

This shows that at 11:00 the mixed-use parking is forecast to be close to absolute capacity in 2036 with the DLP. However, the majority of the growth is background growth, with the DLP having a smaller additional impact. At all other times of the day the parking is forecast to be below 85% capacity.

At the peak time of 11:00 there is forecast to be spare capacity on nearby residential roads.

8.6 Knowle

8.6.1 Parking overview

There are 18 parking areas located in Knowle, with the majority of the on- and off-street parking near the retail, leisure and office land uses being public parking. The Red Lion Pub Car Park (Site 11) is the main exception on the High Street, with the other PNR car parks being further to the north but still close to the High Street.

By the High Street there are 332 off-street public parking spaces over six car parks. There is marked on-street parking on Kenilworth Road and Station Road, with St Johns Close being unmarked and primarily residential.

The six off-street public car parks near Knowle High Street are all Pay & Display, with the same tariff. Each of the non-residential on-street parking locations have a one-hour maximum stay restriction between 8am and 6pm Monday to Saturday. The residential on-street parking and the two public car parks to the west have no restrictions.

There are two PNR car parks that offer parking for non-patrons for a charge

8.6.2 Alternative modes

There are no National Cycle Network (NCN) or local cycle routes in the immediate vicinity of Knowle. However, there are a number of streets that SMBC consider both suitable and attractive to cycle on.

On a Mott MacDonald site visit some observations were made on areas that would benefit from improvements that would enhance safety and provision:

- There is a stretch of road with no pedestrian footway between the two Greswolde Arms Hotel car parks, and
- The pedestrian route between the car park to the rear of Tesco and High Street is through St John's Shopping Centre, which is poorly lit and in need of aesthetic improvement

8.6.3 Consultation

23 businesses from Knowle responded to the questionnaire. Of the 16 businesses with on-site parking, nine believe there are capacity issues with many citing there is an inadequate number of spaces for their employees. Parking provision is perceived to be an issue, with 18 stating there is not enough parking currently provided.

For almost a third of respondents, a key issue with current parking provision is that customers and employees alike struggle to find parking spaces within Knowle, partly due to a lack of spaces and partly as a result of poor signage.

8.6.4 Existing parking demand

In Knowle, a large number of the car parks now have different tariffs compared to when the surveys were undertaken. This includes Sites 2, 3, 4, 5, 6, 7, 8, 10 and 11. However due to new surveys being unable to take place, the 2017 data has been used for this study.

Many of the car parks have high utilisation between 10:00 and 16:00. Loft Croft Car Park is over absolute capacity at 09:00 and the Village Hall (East) Car Park is at absolute capacity between 12:00 and 15:00.

The peak time overall for the public off-street parking is at 11:00 at 80%, but it still stays above 73% utilisation between 10:00 and 15:00. At the peak times, the majority of cars are parked for short stays. At 11:00 42% of the cars at the public off-street car parks are parked for one hour or less and a further 29% are parked for two hours or less.

The highest utilisation out of the on-street parking is on Station Road (west of St Johns Close) which is at 89% capacity at 06:00. All of the on-street parking is used between 09:00 and 17:00, with all roads between 42% and 80% utilisation.

8.6.5 Local Plan growth

Around Knowle, there are two proposed DLP developments (with Site 8 having two parcels). The build-out projection for each site in 2026 and 2036 is shown below.

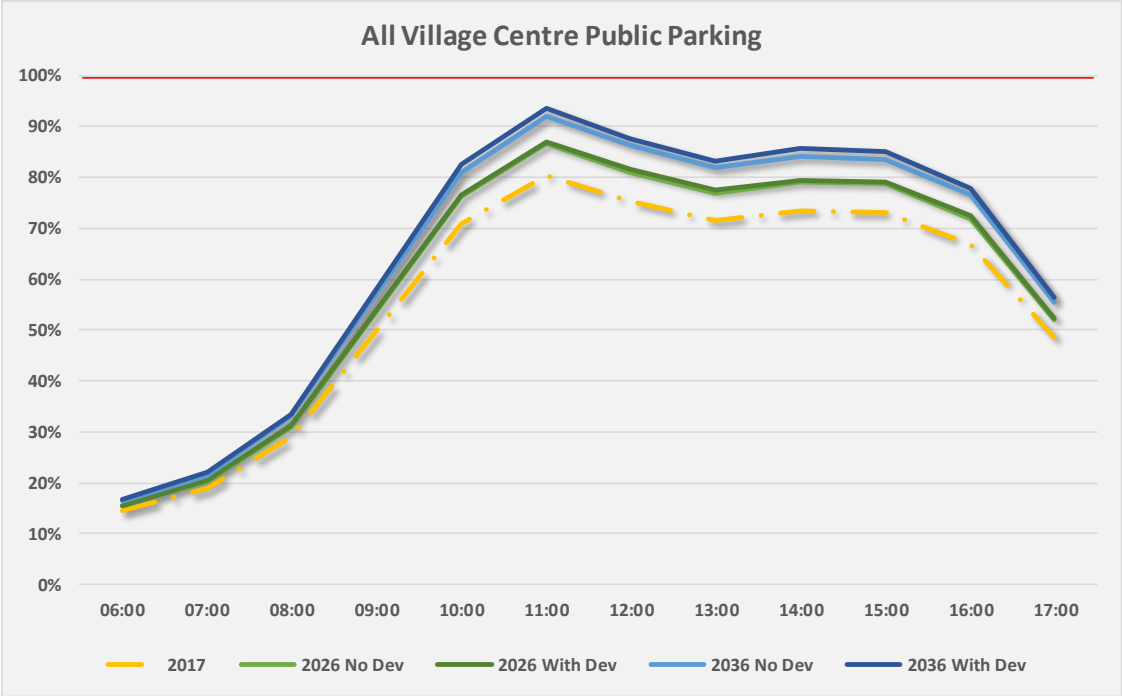
Table 8.3: Knowle DLP development projection

Site Number	No. of Dwellings	Built by 2026	Built by 2036
8a (north)	150	50	150
8b (south)	150	50	150
9	600	200	600
Total	**900**	**300**	**900**

8.6.6 Future parking demand

Figure 8.5 below shows the forecast demand over all of the public parking near the High Street, both on-street and off-street. This includes Sites 4, 5, 6, 7, 8, 9, 10, 13, 16 and 17.

Figure 8.5: Forecast public parking utilisation in Knowle village centre



Source: 2017 Parking Survey and TEMPro Growth

This shows that at 11:00, the public parking is forecast to be close to absolute capacity in 2036 with DLP development. However, the majority of the growth is caused by background growth rather than the DLP. Between 10:00 and 15:00 the public parking is predicted to be over 82% capacity in 2036 with DLP growth.

In 2026 there is a smaller impact on demand, with the DLP growth having even less of an additional impact compared to 2036.

8.7 Mitigation

A summary of the mitigation and associated costs for each of the three study areas is shown in the following table. These costs are only indicative and provide a rough estimate. They also exclude items such as issuing and management of permits, utility works, diversions and maintenance.

Table 8.4: Mitigation summary

Study Location	Mitigation	Primary Reason for Mitigation	Estimated Cost
Balsall Common	Extension to Berkswell station parking (c.134 new spaces)	Local Plan development	£970,000
Balsall Common	Option 1 (with bypass) – new on-street parking on the A452 close to Station Road in line with A452 public realm improvements (to be confirmed)	Mainly background growth, but with some Local Plan development impact	£45,000
Balsall Common	Option 2 (without bypass) – parking controls on the library car park to prioritise demand and monitoring of nearby residential parking	Mainly background growth, but with some Local Plan development impact	£62,000 (pay & display)
Knowle	Potential changes to existing tariffs in public car parks to manage demand and monitoring of impacts on nearby residential parking	Mainly background growth, but with some Local Plan development impact	£37,000
Knowle	Potential for smart signage to show availability of spaces and where alternative parking is available	Mainly background growth, but with some Local Plan development impact	£380,000
Dickens Heath	New station parking at Whitlocks End (c.136 spaces), either through an extension to the current car park or by adding a deck	Local Plan development	£980,000 (staying one level)
Dickens Heath	Potential introduction to tariffs in public car parks to manage demand and monitoring of impacts on nearby residential parking	Mainly background growth, but with some Local Plan development impact	£115,000

8.8 Next steps

The high-level nature of this study and the influence of Covid-19 have resulted in some limitations with the analysis in this study. This means that there are certain steps that could be taken following this study to investigate the parking conditions in each of the study areas further.

These steps include:

- Saturday Surveys
- New surveys at sites where tariffs or controls have changed
- Survey on Tilehouse Lane in Dickens Heath to determine if demand for the station car park has spread to on-street parking
- Further analysis into trip purpose and growth factors
- Accessibility studies to promote alternative modes to the village centres
- Detailed costings

A. Balsall Common parking locations

Table A.1: Balsall Common off-street car parks

Site number	Location	Managed by:	Total spaces	Cost	Notes
1	322/24 Kenilworth Road	J. Deeley & Sons, Funeral Directors	12	Free	Customers only
2	Haigs Hotel and Restaurant	Haigs Hotel and Restaurant	30	Free	1 disabled space Hotel and restaurant customers
3	Library Car Park	Solihull Council	61	Free	2 disabled spaces. Open 24/7
4	Balsall Common Village Hall	Village Hall and Billiards Club	24	Free	1 disabled space No unauthorised parking
5	Balsall Common Dental Practice	Balsall Common Dental Practice	15	Free	Private car park for Practice visitors only
7	Atkinson Stilgoe- Station Road and A452	Atkinson Stilgoe	10	Free	Private parking- Atkinson Stilgoe Estate Agents
8	Barclays Bank- Station Road/A452	Barclays Bank	10	Free	Employees and authorised visitors only
9	Rear of Co-op Food	Co-operative Food	64	Free	3 disabled spaces. Maximum 2 hours Customer parking for Co-op
10	The Railway Inn	The Railway Inn	15	Free	Customers only
11	Balsall Common Health Centre	Assure / Balsall Common Health Centre	65	Free	5 disabled spaces Free patient parking **Potential for 5 unofficial spaces outside gates**
12	The Brickmakers Arms Pub	The Brickmakers Arms	30	Free	Pub customers
13	Royal British Legion	Royal British Legion	45	Free	Members only **Possible use by train station users** £1 per hour for non-members
14	Berkswell Train Station	Network West Midlands	91	Free	5 disabled spaces Open 24/7
17	White Horse at Balsall Common pub	The White Horse	65	Free	4 disabled spaces. Pub and Day Nursery car park. Possible outside use as well, 10 British Gas vans present during survey
18	Balsall Common Sports Association	Balsall Common Sports Association	45	Free	Sports club users Gated car park
19	Lavender Hall Park	Solihull Council	20	Free	For park users. 4 disabled spaces April-September gates open from 8am-8/9pm October-March gates open from 8am-4/5pm

20	Balsall Common Premier Inn	Premier Inn	35	Free	5 disabled spaces Guests only
21	Premier Inn/Beefeater	Premier Inn	70	Free	Guests/customers only
22	Sainsbury's Local	Sainsbury's Local	10	Free	Customers Only

Table A.2: Balsall Common Off-Street Car Parks

Site number	Location	Managed by:	Total spaces	Cost	Notes
6	Station Road (east of A452 Kenilworth Road)	Solihull Council	113	Free	2 disabled spaces 2-hour parking, Mon-Sat, 8am-8pm. No return within 2 hours
15	Hallmeadow Road	Solihull Council	33	Free	Unofficial road parking No parking bays or restrictions
16	Gipsy Lane	Solihull Council	26	Free	Single yellow line. Restrictions: Mon-Fri, 9-11, 2-3 Likely to be used by Heart of England school students and parents.
23	Arden Close	Solihull Council	27	Free	Unofficial road parking No parking bays or restrictions
24	Station Road (west of A452 Kenilworth Road)	Solihull Council	22	Free	Unofficial road parking No parking bays or restrictions
25	Kenilworth Drive	Solihull Council	13	Free	Unofficial road parking No parking bays or restrictions
26	Turnpike Close	Solihull Council	25	Free	Unofficial road parking No parking bays or restrictions

B. Consultation questionnaire

Solihull Parking Study: Local Business Questionnaire

Mott MacDonald are a global civil engineering and project management consultancy and have been commissioned by Solihull Metropolitan Borough Council to undertake a car parking study within the borough, covering Balsall Common, Dickens Heath and Knowle.

The objective of the study is to determine the current demand and supply of car parking and to identify how this should be managed in the future, given the context of planned development within the borough.

This questionnaire has been given to all existing businesses within the study area to gather your comments and concerns regarding the current state of parking provision within your borough. Please answer this questionnaire honestly, scan and email to richard.bailey@mottmac.com or alex.clewett@mottmac.com.

1. **What is the name of your business?**

……

2. **Which district of Solihull is your business located? Please circle as appropriate.**

Balsall Common Dickens Heath Knowle

3. **Does your business have on-site parking? If not, please skip to question 7.**

Yes No

4. **Is parking within your car park enforced, and if so, in what manner?**

Yes No

……

5. **Does your car park have capacity issues and if so, at what times in particular?**

Yes No

……

6. **Do you have issues with illegal parking in your car park?**

Yes No

Comments: ……

7. Do you believe there is enough car parking provision within your district?

Yes No

Comments: ……

8. Is existing parking provision in an appropriate state of repair?

Yes No

Comments: ……

9. Is there enough disabled parking provision in your district?

Yes No

10. Is there enough cycle parking provision in your district?

Yes No

11. Is there enough parking enforcement in your district?

Yes No

Comments: ……

12. Are there enough travel alternatives to driving into this district and if not, what should be provided?

Yes No

Comments: ……

13. On a scale of 1 – 10, to what extent is parking a key issue for your business?

1 2 3 4 5 6 7 8 9 10

14. Does existing parking provision provide a help or hindrance to your business?

Major Help Minor Help Neutral Minor Hindrance Major Hindrance

15. Do you have any further comments on parking within your district?

……
……
……

Thank you for your valuable input.

C. Dickens Heath parking locations

Table C.3: Dickens Heath off-street car parks

Site number	Location	Managed by:	Total spaces	Cost	Notes
3	Rear of Tesco, Rumbush Lane	Dickens Heath Management Company Ltd	68	Free	Car park was overflowing. 3 disabled spaces
5	Doctors Practice	Solihull Council	6	Free	Customers only. 5 disabled spaces
6	Back of Mortons	Dickens Heath Management Company Ltd	98	Free	Car park was overflowing
14	Whitlocks End Station	Network West Midlands/ Vehicle Control Services Ltd	332	Free	Rail Users only. 8 disabled spaces
15	Shirley Football Club	Shirley Football Club	55	Free	Customers only
16	Behind Customs House	Dickens Heath Management Company Ltd	6, 10 on adjacent street	Free	Employees only
17	Waterside Heights	Waterside Apartments	20	Free	Customers only

Table C.4: Dickens Heath On-Street Parking

Site number	Location	Managed by	Total spaces	Cost	Notes
1	Dickens Heath Road (south of Old Dickens Heath Road)	Solihull Council	13	Free	Unofficial Road parking
2	Rumbush Lane (south of Dickens Heath Road)	Solihull Council	13	Free	Unofficial Road parking, no bays or restrictions
4	Main Street (north of Gorcott Lane)	Dickens Heath Management Company Ltd	40	Free	29 official bays, more unofficial spaces further down Main Street
7	Boundary Lane	Solihull Council	23	Free	Possible residential parking
8	Old Dickens Heath Road	Solihull Council	23	Free	Unofficial Road parking, no bays or restrictions
9	Hirdemonsway	Solihull Council	10	Free	Unofficial Road parking, no bays or restrictions
10	Rumbush Lane (south of Gorcott Lane)	Solihull Council	22	Free	Unofficial Road parking, no bays or restrictions
11	Main Street (south of Gorcott Lane)	Solihull Council	22	Free	Roadside bays, no restrictions

13	Three Acres Lane	Solihull Council	31	Free	Outside Dickens Heath Community Primary School, both residential and used by parents
18	Mereways	Solihull Council	5	Free	Unofficial Road Parking, no bays or restrictions
19	Packmores	Solihull Council	24	Free	Unofficial Road parking, no bays or restrictions
20	Ascote Lane	Solihull Council	40	Free	Unofficial Road parking, no bays or restrictions
21	Residential Access Road	Solihull Council	21	Free	Unofficial Road parking, no bays or restrictions
22	Calcutt Way	Solihull Council	20	Free	Unofficial Road parking, no bays or restrictions

D. Knowle Parking locations

Table D.5: Knowle Off-Street Car Parks

Site number	Location	Managed by	Total spaces	Cost	Notes
1	Knowle Park	Solihull Council	28	Free	For park users. 4 disabled spaces April-September gates open from 8am-8/9pm October-March gates open from 8am-4/5pm
2	Toby Carvery	Toby Carvery	90	Free	Customer Parking - Free for customers. 3 disabled spaces up to 2hrs - £1 4hrs £2 24hrs £6
3	Greswolde Arms Hotel	Greswolde Arms Hotel	70	Pay and Display	Free for hotel residents/customers Up to 3 hours (£3), More than 3 hours (£6)
4	Tesco Metro	Solihull Council	65	Pay & Display*	5 disabled spaces. Open 24/7
5	Rear of Greswolde Arms	Solihull Council	130	Pay & Display*	5 disabled spaces.
6	Rear of Village Hall	Solihull Council	44	Pay & Display*	1 disabled space. Open 24/7
7	Village Hall (West)	Solihull Council	28	Pay & Display*	
8	Village Hall (East)	Solihull Council	23	Pay & Display*	Open 24/7
10	NatWest Bank	Solihull Council/ NatWest	42	Pay & Display*	2 disabled spaces. Open 24/7 6 employee spaces
11	Red Lion pub	Red Lion pub/ Local Parking Security Ltd	48	Free	3 disabled spaces. Free for customers Customers Only
12	Lodge Croft	Solihull Council	23	Free	Unrestricted Parking Area Open 24/7
14	Knowle Surgery	Knowle Surgery	15	Free	Patients / employees only. Also 2 designated ambulance spaces.
15	Royal British Legion	Royal British Legion	58	Free	3 disabled spaces. Customer Parking

* 0-2 hours(Free), 2-3 hours (£1.20), 3-4 hours (£2.20), 4-6 hours (£3.20), 6+ hours (£4.00)

Table D.6: Knowle On-Street Car Parks

Site number	Location	Managed By	Total spaces	Cost	Notes
9	Kenilworth Road	Solihull Council	19	Free	Restricted Street Parking 1 hour, no return within 1 hour. Mon-Sat, 8am-6pm.
13	Station Road (west of St Johns Close)	Solihull Council	38	Free	Restricted Street Parking 1 hour, no return within 1 hour. Mon-Sat, 8am-6pm.
16	Station Road (east of St Johns Close)	Solihull Council	14	Free	Restricted Street Parking 1 hour, no return within 1 hour. Mon-Sat, 8am-6pm.
17	Station Road Frontages Access Road	Solihull Council	24	Free	Restricted Street Parking 1 hour, no return within 1 hour. Mon-Sat, 8am-6pm.
18	St Johns Close	Solihull Council	63	Free	Unrestricted Street Parking

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