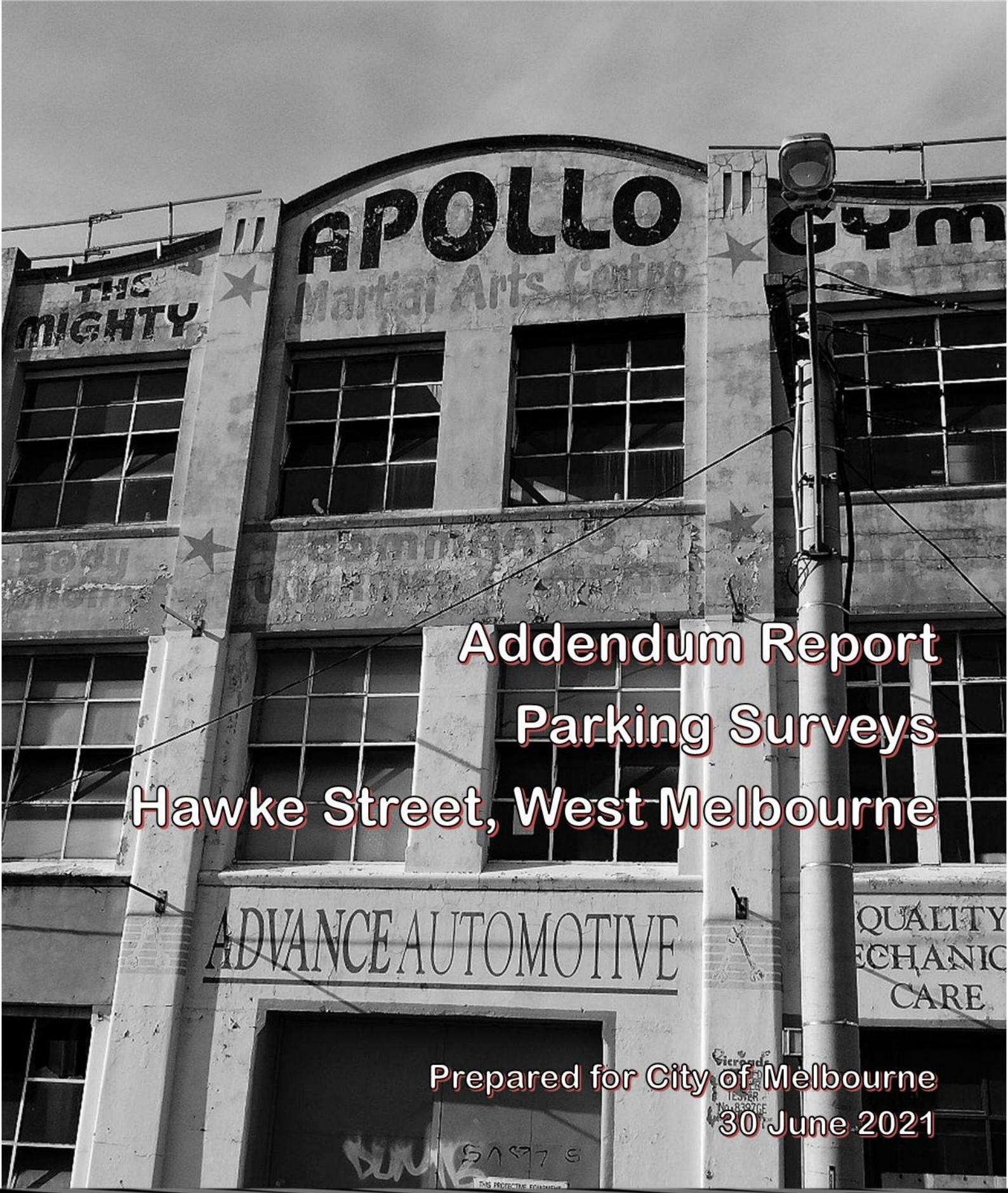


Addendum Report
Parking Surveys
Hawke Street, West Melbourne

Prepared for City of Melbourne
30 June 2021

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CONTENTS

1 Introduction 1

2 Survey Program 2

2.1 Impact of Covid-19 Pandemic 2

2.2 Parking Surveys 2

3 Survey Findings 3

3.1 Parking Inventory 3

3.2 Parking Turnover 4

3.3 Parking Occupancy 7

3.4 Comparison of Parking Occupancy in Separate Blocks of Hawke Street 22

3.4.1 Parking Occupancy on Wednesday 23

3.4.2 Parking Occupancy on Saturday 23

3.5 Comparison with Historic Parking Studies 28

4 Key Findings 29

1 INTRODUCTION

This addendum report has been prepared as a supplement to a report titled "Traffic & Parking Surveys, Hawke Street, West Melbourne", dated 28 January 2021 (the January 2021 report). The January 2021 report presented the findings of a package of traffic and parking surveys along the Hawke Street corridor and nearby environs in West Melbourne. The surveys and analysis were designed to comprehensively illustrate the current nature of traffic movements through the study area as well as the current parking utilisation on Hawke Street. The findings provided baseline data to inform the assessment of options for a future upgrade of Hawke Street, between King Street and Railway Place.

This addendum report focusses only on the parking utilisation aspects and presents the findings of new parking surveys over the entire study area, which were conducted in May 2021. These new surveys represent a full repeat of the original parking surveys presented in the January 2021 report (those surveys were undertaken in November 2020). The general survey area is shown in Figure 1.



Figure 1: Extent of Survey Work along Hawke Street

The objective of this addendum report is to better understand the implications on parking demand associated with the Covid-related travel restrictions that affected metropolitan Melbourne (bearing in mind that the original parking surveys were undertaken in the period immediately following the relaxation of the strictest lockdown phase across Melbourne). Within this context, this addendum report should be read in conjunction with the January 2021 report. The parking analysis and findings presented in this addendum report supercede the analysis and findings from the January 2021 report and provide a more realistic snapshot of parking demand conditions along Hawke Street during this initial post-Covid phase.

2 SURVEY PROGRAM

2.1 IMPACT OF COVID-19 PANDEMIC

The parking survey work was undertaken in early November 2020 and early May 2021. During the November surveys, traffic (and associated parking) conditions in Melbourne were, partly, atypical (compared to similar periods in previous years). The November 2020 survey period occurred shortly after the relaxation of the strictest stay-home orders (colloquially known as the 'Melbourne lockdown') which had been initially imposed in early July 2020.

As of 28 October 2020, a first relaxation of the lockdown took place in Melbourne, with the main travel-related aspects being:

- People could freely leave their homes
- All retail stores, restaurants, cafes and bars were able to re-open, with group limits of 10 patrons indoors
- Household visits were allowed, subject to some conditions
- Outdoor gatherings of up to 10 people could take place
- Weddings were able to take place with up 10 people and funerals with up to 20 people

The parking surveys were undertaken just before further relaxation was implemented on Sunday 8 November 2020. As a result, it is probable that the parking surveys undertaken in early November 2020 were not fully representative of parking conditions that would have normally been present in the study area. First, the first set of changes to restrictions had just been implemented. Second, even though some restrictions had been lifted a few days before, places like restaurants still had limits on the number of patrons allowed. Lastly, most people were likely still hesitant to engage in social activities given the length of the lockdown period.

Within this context, a new set of parking surveys were conducted in early May 2021. Given the six months that elapsed between the end of the lockdown and the most recent parking surveys, it is assumed that traffic and parking conditions are comparable to data from previous years either because patterns have returned to 'normal' or settled into a 'new normal'.

2.2 PARKING SURVEYS

The assessment of existing parking conditions on Hawke Street included measurements of parking occupancy, a determination of the proportion of resident vehicles (those displaying Council-issued resident parking permits) and the duration-of-stay statistics of all parked vehicles.

The survey tasks involved:

- Preparation of a full inventory of parking spaces on both sides of Hawke Street, as well as centre-of-road parking areas, between King Street and Railway Place
- Parking occupancy measurements
- Duration-of-stay assessments

Parking surveys were conducted on two separate days (a weekday and a weekend day) between 7.00am and 7.00pm. The days selected were fine weather days: Wednesday 4 and Saturday 7 November 2020, and Wednesday 5 May and Saturday 8 May 2021.

The parking survey sweeps (which involved identifying the parking spaces that were occupied) were undertaken at two-hourly intervals at the following times: 7.00am, 9.00am, 11.00am, 1.00pm, 3.00pm, 5.00pm and 7.00pm. During the parking surveys, vehicle number plates were captured, to allow identification of parking duration-of-stay.

3 SURVEY FINDINGS

3.1 PARKING INVENTORY

Since November 2020, minor changes to parking restrictions have been implemented in the study area, including the replacement of parking spaces for cafe parklets and the removal of some construction permit zones. There are 157 parking spaces in Hawke Street, of which 149 are available to the public during normal weekday daytime business hours (compared to 146 in November 2020). Many of the parking restrictions convert to 'permit zones' (for residents and their visitors) after-hours and are not available for general public parking. The location of parking restrictions is shown in Figure 2 (with the number of publicly available parking spaces shown in boxes adjacent to each parking zone). The figure shows the distribution of parking on each side of Hawke Street as well as the 'centre-of-road' parking areas (most of which are designated as 4-hour limit parking). The mix and quantity of each parking restriction type is summarised in Table 1.

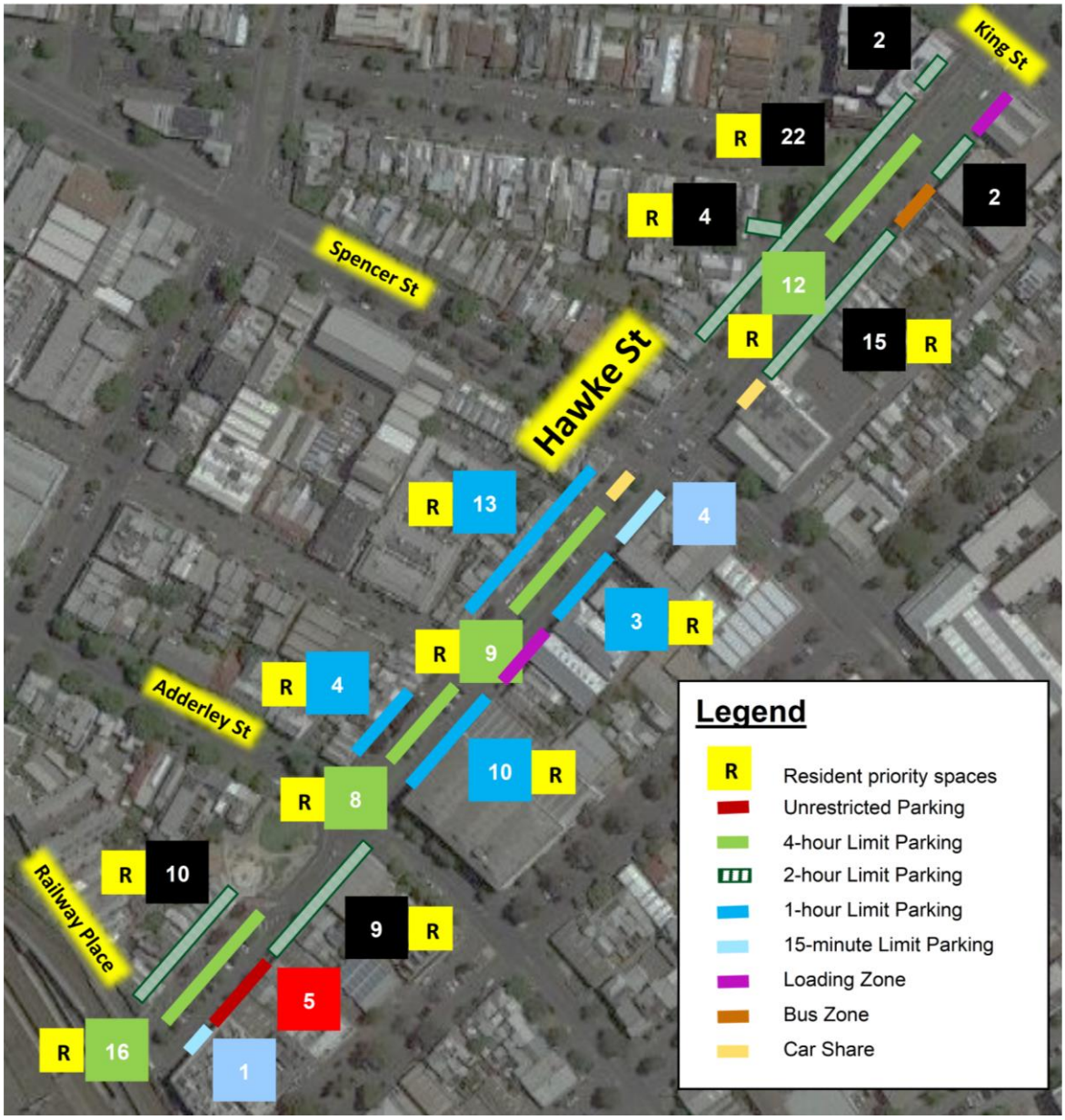


Figure 2: Hawke Street: Location of Parking Restrictions between King Street and Railway Place

Table 1: Parking Inventory

Parking Restriction (during normal weekday daytime business hours)	Number of Spaces
15 Minute Limit	5
1 Hour Limit	30
2 Hour Limit	64
4 Hour Limit	45
Unrestricted (no time limit)	5
Loading Zone	4
Bus Zone	1
Car Share	3
Total Spaces	**157**
Spaces Available to the Public	**149**

The inventory shown in Figure 2 and Table 1 highlights that there are 149 publicly available parking spaces. These include 135 spaces that provide an exemption from the sign-posted parking time limits for vehicles displaying resident parking permits – colloquially referred to as 'resident priority parking spaces'. The resident priority parking comprises:

- 1 Hour Limit resident priority – 30 spaces
- 2 Hour Limit resident priority – 60 spaces
- 1 Hour Limit resident priority – 45 spaces
- Total – 135 spaces

The resident priority parking is distributed as follows, on a block by block basis:

Railway Place to Adderley

- 2 Hour Limit resident priority – 19 spaces
- Hour Limit resident priority – 16 spaces

Adderley to Spencer

- 1 Hour Limit resident priority – 30 spaces
- 4 Hour Limit resident priority – 17 spaces

Spencer to King

- 2 Hour Limit resident priority – 41 spaces
- 4 Hour Limit resident priority – 12 spaces

3.2 PARKING TURNOVER

Parking turnover is a measure of the extent to which motorists comply with the time-limited restrictions. Turnover is effectively a measure of the 'duration-of-stay'. Resident permit holders are exempt from posted time limits and hence their compliance with time limits is irrelevant – for the purposes of understanding whether non-permit holders are complying with time-limited restrictions when parking in Hawke Street. Accordingly, Tables 2 to 5 over the page summarise parking duration only for those vehicles that were parked in Hawke Street and did not display a valid resident parking permit (effectively these vehicles can be defined as the 'general public').

The weekday 'Duration of Stay' statistics are shown in Table 2 and Table 3, whereas the weekend statistics are provided in Table 4 and Table 5. Each table provides average duration-of-stay for each of the time-limited zones.

Table 2: Hawke Street: Weekday Parking Turnover / Duration-of-Stay by General Public (Wednesday 4 Nov 2021)

Permitted Parking Time Limit	Parking Duration: Non-resident Vehicles – Wednesday 4 November 2020						
	0-2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	8-10 hrs	10-12 hrs	>12 hrs
15 minutes	100%	0%	0%	0%	0%	0%	0%
1 Hour	31%	40%	11%	4%	7%	4%	2%
2 Hour	20%	33%	23%	5%	8%	8%	5%
4 Hour	15%	26%	20%	14%	11%	8%	5%
Overall	**21%**	**31%**	**18%**	**10%**	**9%**	**7%**	**4%**

Table 3: Hawke Street: Weekday Parking Turnover / Duration-of-Stay by General Public (Wednesday 5 May 2021)

Permitted Parking Time Limit	Parking Duration: Non-resident Vehicles – Wednesday 5 May 2021						
	0-2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	8-10 hrs	10-12 hrs	>12 hrs
15 minutes	100%	0%	0%	0%	0%	0%	0%
1 Hour	29%	43%	14%	5%	5%	0%	5%
2 Hour	23%	29%	11%	4%	13%	13%	7%
4 Hour	21%	37%	19%	7%	7%	5%	4%
Overall	**23%**	**36%**	**16%**	**5%**	**8%**	**7%**	**5%**

Table 4: Hawke Street: Weekend Parking Turnover / Duration-of-Stay by General Public (Saturday 7 November)

Permitted Parking Time Limit	Parking Duration: Non-resident Vehicles – Saturday 7 November						
	0-2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	8-10 hrs	10-12 hrs	>12 hrs
15 minutes	20%	30%	20%	20%	0%	0%	10%
1 Hour	21%	32%	16%	11%	5%	5%	11%
2 Hour	22%	33%	15%	4%	7%	0%	19%
4 Hour	10%	22%	21%	18%	12%	4%	12%
Overall	**15%**	**27%**	**19%**	**14%**	**9%**	**3%**	**13%**

Table 5: Hawke Street: Weekend Parking Turnover / Duration-of-Stay by General Public (Saturday 8 May)

Permitted Parking Time Limit	Parking Duration: Non-resident Vehicles – Saturday 8 May						
	0-2 hrs	2-4 hrs	4-6 hrs	6-8 hrs	8-10 hrs	10-12 hrs	>12 hrs
15 minutes	29%	43%	14%	14%	0%	0%	0%
1 Hour	23%	35%	15%	8%	6%	6%	8%
2 Hour	18%	31%	19%	8%	8%	7%	8%
4 Hour	16%	27%	18%	14%	8%	5%	12%
Overall	**19%**	**30%**	**18%**	**11%**	**8%**	**6%**	**9%**

The statistics shown in Tables 2 to 5 reveal modest levels of compliance in each of the time-limited parking zones. The time-restriction that applies to the greatest number of parking spaces is the two-hour limit – which covers 64 spaces. The next highest time-restriction (by number of parking spaces) is the four-hour limit – which covers 45 spaces. When examining the extent to which motorists complied with these time limits on the two Wednesdays, the following is noted:

- On Wednesday 4 November:
  - Only 20% of vehicles that parked in the two-hour limit spaces stayed for periods of two hours or less
  - Nearly half (47%) of those parked in the two-hour limit spaces stayed in excess of 4 hours
  - Only 41% of vehicles that parked in the four-hour limit spaces stayed for periods of four hours or less
  - Over half (59%) of those parked in the four-hour limit spaces stayed in excess of 4 hours
- On Wednesday 5 May:
  - Only 23% of vehicles that parked in the two-hour limit spaces stayed for periods of two hours or less.
  - Nearly half (48%) of those parked in the two-hour limit spaces stayed in excess of 4 hours
  - Over half (58%) of those parked in the four-hour limit spaces stayed for periods of four hours or less
  - Only 42% of those parked in the four-hour limit spaces stayed in excess of 4 hours

The duration of stay data for the two-hour limit spaces is virtually identical on both Wednesdays. In contrast, compliance levels for the four-hour limit spaces were higher on the Wednesday in May 2021 than they were on the Wednesday in November 2020. On the latest Wednesday, almost 60% of vehicles parked in the four-hour limit spaces stayed four hours or less, compared to just over 40% in November 2020.

When examining the extent to which motorists complied with time limits on the two Saturdays, the following is noted:

- On Saturday 7 November:
  - Only 22% of vehicles that parked in the two-hour limit spaces stayed for periods of two hours or less
  - Nearly half (45%) of those parked in the two-hour limit spaces stayed in excess of 4 hours
  - Only 32% of vehicles that parked in the four-hour limit spaces stayed for periods of four hours or less
  - Over two-thirds (68%) of those parked in the four-hour limit spaces stayed in excess of 4 hours
- On Saturday 8 May:
  - Only 18% of vehicles that parked in the two-hour limit spaces stayed for periods of two hours or less
  - Half (50%) of those parked in the two-hour limit spaces stayed in excess of 4 hours
  - Only 32% of vehicles that parked in the four-hour limit spaces stayed for periods of four hours or less
  - Over half (57%) of those parked in the four-hour limit spaces stayed in excess of 4 hours

In summary, the duration of stay data for the two-hour and four-hour limit spaces is very similar on both Saturdays. Compliance levels were higher on the Saturday in May 2021 for both the two-hour and the four-hour limit spaces than they were on the Saturday in November 2020.

3.3 PARKING OCCUPANCY

Figure 3 compares the parking occupancy throughout the survey periods (every two hours between 7am and 7pm) on the four survey days. Occupancy levels were higher during all hours surveyed for the May 2021 Wednesday and Saturday, compared to the respective weekday and weekend days in November 2020. This can be seen by comparing the green and blue lines (the two Wednesdays), and the yellow and red lines (the two Saturdays). The overall supply (number of spaces available to the public) was 146 spaces in November 2020 and 149 in May 2021.

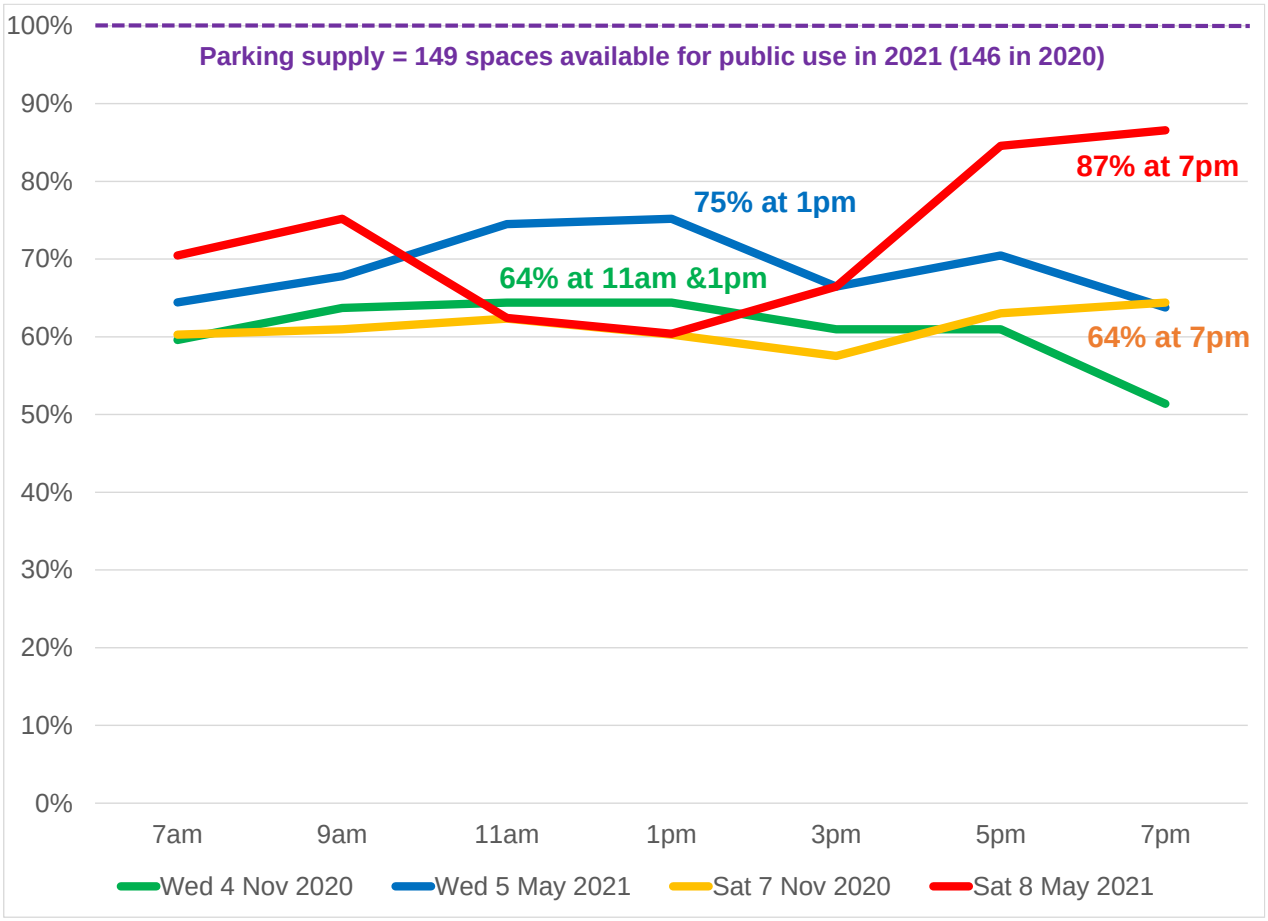


Figure 3: Parking Occupancy Comparison – November 2020 and May 2021 Survey Days

When examining the data summarised in Figure 3, the following is noted:

- The highest occupancy recorded on all four days (87%) occurred on Saturday 8 May 2021 at 7pm. The second busiest hour (85%) also occurred on Saturday 8 May 2021 at 6pm. Those were the only two hours on the four days with an overall occupancy of more than 80%.
- The overall occupancy trends (shown by the shape of the green and blue lines) are similar on the two weekdays, with occupancy increasing in the mid to late morning and then slowly decreasing throughout the day, with the lowest occupancy occurring at 7pm. The busiest hours on the two Wednesdays were 11am and 1pm. On the Wednesday in November, the highest occupancy was 64%, compared to 75% on the Wednesday in May.
- The overall occupancy trends (shown by the shape of the green and blue lines) are less similar on the two weekend days, with occupancy quite stable on the Saturday in November. In contrast, on the Saturday in May, occupancy decreases during the midday hours as residents leave their homes and increases sharply in the late afternoon/early evening as residents return and people visiting sports and entertainment venues arrive.

Figure 4 and Figure 5 compare the parking occupancy recorded on Wednesday 4 November 2020 and Wednesday 5 May 2021. The data shown in the two images combines the occupancy recorded in all of publicly available parking spaces (15 Minute Limit, 1 Hour Limit, 2 Hour Limit, 4 Hour Limit and the Unrestricted spaces).

Occupancy - All Spaces: Wednesday 4 Nov							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	40%	36%	36%	36%	39%	39%	49%
Occupied	60%	64%	64%	64%	61%	61%	51%

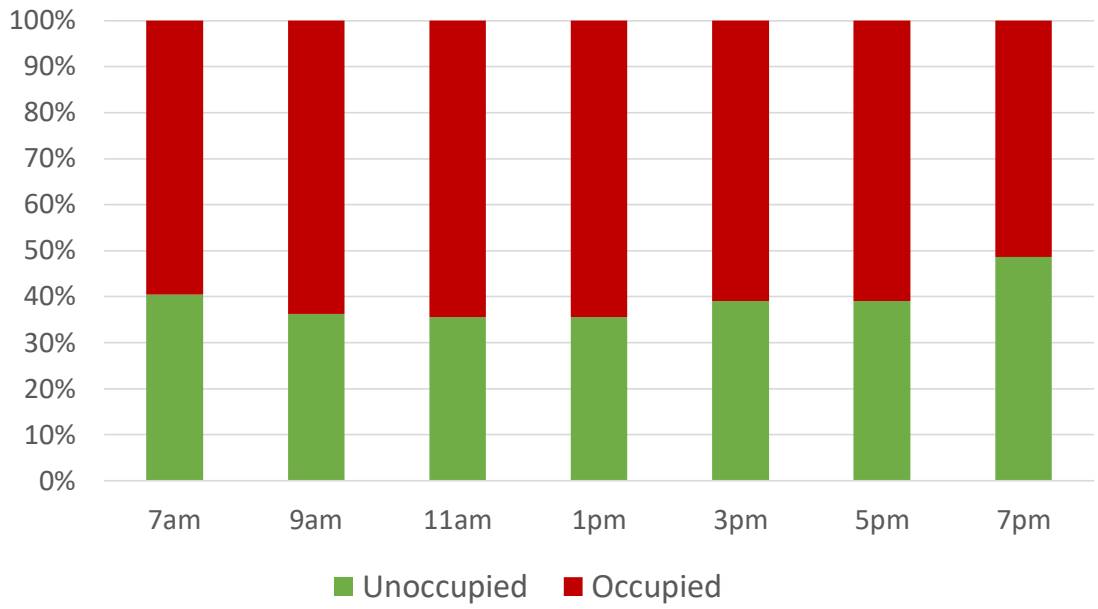


Figure 4: Parking Occupancy in Hawke Street (Wednesday 4 November 2020) – Hourly Variation

Occupancy - All Spaces: Wednesday 5 May							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	36%	32%	26%	25%	34%	30%	36%
Occupied	64%	68%	74%	75%	66%	70%	64%

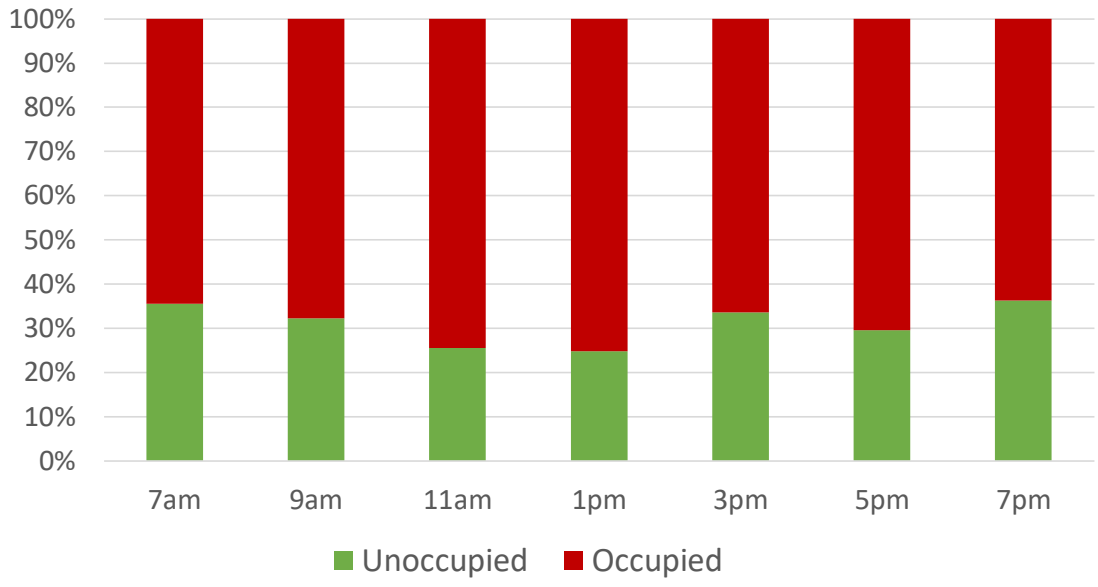


Figure 5: Parking Occupancy in Hawke Street (Wednesday 5 May 2021) – Hourly Variation

On Wednesday 4 November 2020, the maximum occupancy occurred at both 11am and 1pm, when 64% of all spaces were occupied. Overall, through the day:

- There were 220 vehicles recorded using both sides of Hawke Street between King Street and Railway Place between 7am and 7pm.
- Of these vehicles, there were 37 (17% of the total that parked) that displayed valid Council-issued resident parking permits. Thus, the remaining 183 (83% of the total that parked) were general public. It is important to note that the 37 vehicles displaying resident parking permits represent the total number of separate vehicles that parked in Hawke, at some stage, during the 12-hour survey duration. They do not represent a maximum tally for any individual hour of the survey.
- The overall occupancy on Wednesday (measured between 7am and 7pm) was 62%.

When assessing the parking statistics associated solely associated with residents' vehicles, it was found that:

- The highest number of cars that were parked during any hour of the survey and that also displayed a resident parking permit was 30 vehicles at 7am (equivalent to 34% of all vehicles parked at that time).
- Furthermore, the 30 spaces required by residents at 7am represents around 21% of the available parking supply.

On Wednesday 5 May 2021, the maximum occupancy occurred at 1pm, when 75% of all spaces were occupied. Overall, through the day:

- There were 310 vehicles recorded using both sides of Hawke Street between King Street and Railway Place between 7am and 7pm.
- Of these vehicles, there were 71 (23% of the total that parked) that displayed valid Council-issued resident parking permits. Thus, the remaining 239 (77% of the total that parked) were general public. It is important to note that the 71 vehicles displaying resident parking permits represent the total number of separate vehicles that parked in Hawke, at some stage, during the 12-hour survey duration. They do not represent a maximum tally for any individual hour of the survey.
- The overall occupancy on Wednesday (measured between 7am and 7pm) was 68%.

When assessing the parking statistics associated solely associated with residents' vehicles, it was found that:

- The highest number of cars that were parked during any hour of the survey and that also displayed a resident parking permit was 35 vehicles at 7am (equivalent to 37% of all vehicles parked at that time).
- Furthermore, the 35 spaces required by residents at 7am represents around 23% of the available parking supply.

The overall occupancy on Wednesday 5 May 2021 (68%) was higher than that measured on Wednesday 4 November 2020 (62%), reflecting an increase in parking utilisation.

Occupancy - All Spaces: Saturday 7 November							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	40%	39%	38%	40%	42%	37%	36%
Occupied	60%	61%	62%	60%	58%	63%	64%

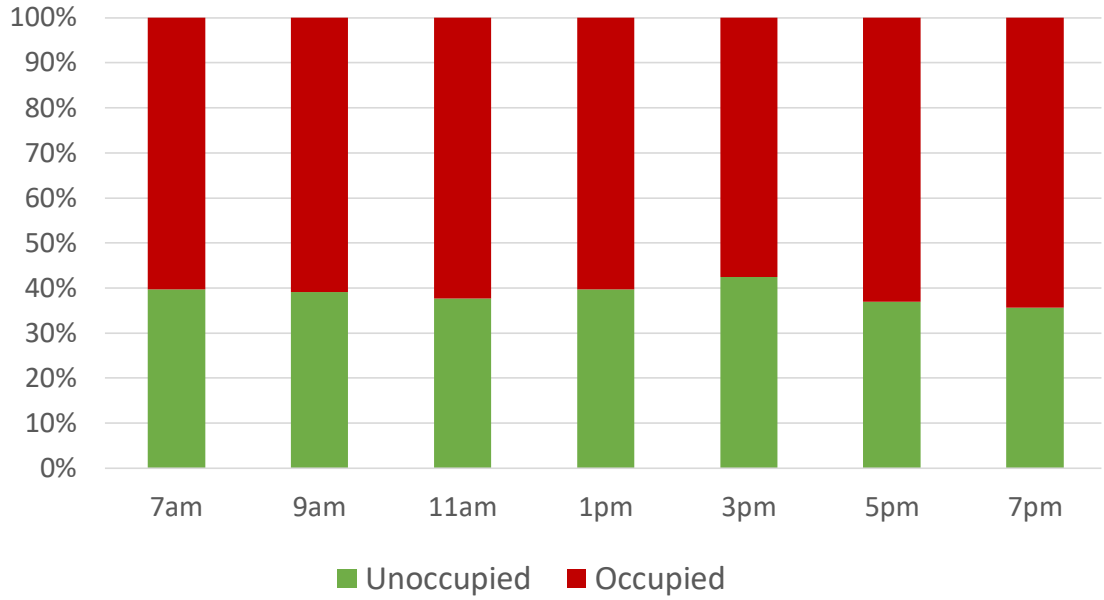


Figure 6: Parking Occupancy in Hawke Street (Saturday 7 November 2020) – Hourly Variation

Occupancy - All Spaces: Saturday 8 May							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	30%	25%	38%	40%	34%	15%	13%
Occupied	70%	75%	62%	60%	66%	85%	87%

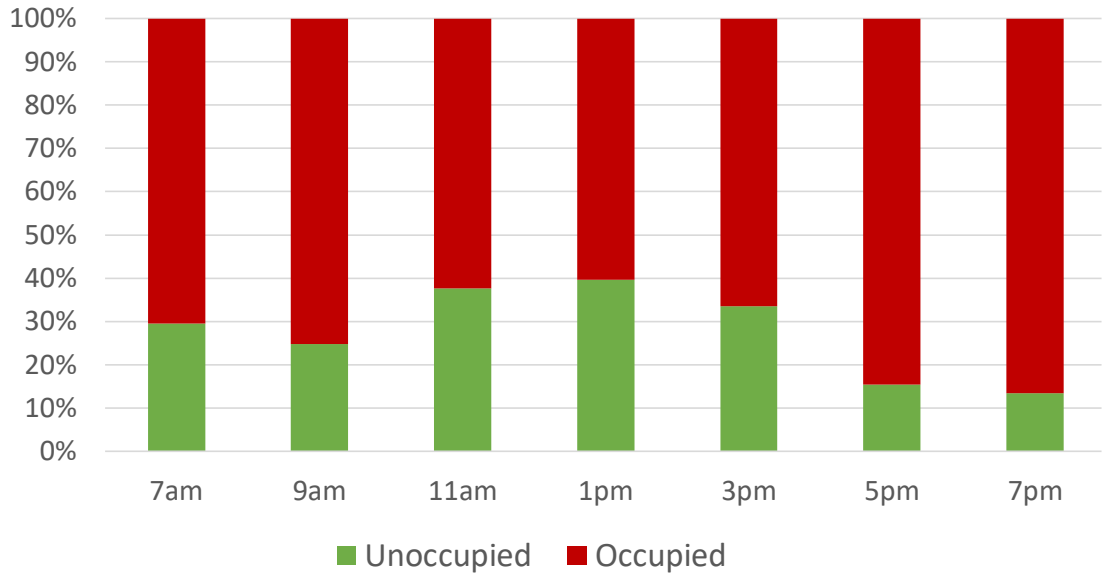


Figure 7: Parking Occupancy in Hawke Street (Saturday 8 May 2021) – Hourly Variation

On Saturday 7 November, the maximum occupancy occurred at 7pm, when 64% of all spaces were occupied. Overall, through the day:

- There were 173 vehicles recorded using both sides of Hawke Street between King Street and Railway Place between 7am and 7pm.
- Of these vehicles, there were 50 (29% of the total that parked) that displayed valid Council-issued resident parking permits. Thus, the remaining 123 (71% of the total that parked) were general public. It is important to note that the 50 vehicles displaying resident parking permits represent the total number of separate vehicles that parked in Hawke, at some stage, during the 12-hour survey duration. They do not represent a maximum tally for any individual hour of the survey.
- The overall occupancy on Saturday (measured between 7am and 7pm) was 63%.

When assessing the parking statistics associated solely associated with residents' vehicles, it was found that:

- The highest number of cars that were parked during any hour of the survey and that also displayed a resident parking permit was found to be 40 vehicles at 7am (equivalent to 45% of all vehicles parked at that time).

The overall conclusions, based on these Saturday survey findings, are similar to the weekday findings. The busiest parking demand on the Saturday matched the weekday with almost two-thirds of the available parking supply occupied (though it occurred at 7pm rather than the middle of the day).

On Saturday, the maximum occupancy occurred at both 7pm, when 87% of all spaces were occupied. Overall, through the day:

- There were 289 vehicles recorded using both sides of Hawke Street between King Street and Railway Place between 7am and 7pm.
- Of these vehicles, there were 64 (22% of the total that parked) that displayed valid Council-issued resident parking permits. Thus, the remaining 225 (78% of the total that parked) were general public. It is important to note that the 64 vehicles displaying resident parking permits represent the total number of separate vehicles that parked in Hawke, at some stage, during the 12-hour survey duration. They do not represent a maximum tally for any individual hour of the survey.
- The overall occupancy on Saturday (measured between 7am and 7pm) was 73%.

When assessing the parking statistics associated solely associated with residents' vehicles, it was found that:

- The highest number of cars that were parked during any hour of the survey and that also displayed a resident parking permit was found to be 48 vehicles at 7am (equivalent to 46% of all vehicles parked at that time).

The overall occupancy on Saturday 8 May 2021 (73%) was higher than that measured on Saturday 7 November 2020 (63%), reflecting an increase in parking utilisation.

While the overall utilisation was virtually identical on the Wednesday and Saturday in November (62% and 63%, respectively), the utilisation in May was higher on Saturday (73%) than on Wednesday (68%).

While Figures 4 to 7 show the overall parking occupancies (measured across all time-restricted parking zones in Hawke Street), the occupancy recorded in each of the different time-restricted areas is separately shown in the series of images that follow.

Figures 8 to 11 show occupancy on both Wednesdays and both Saturdays for the spaces that are subject to a fifteen-minute time limit.

Occupancy - 1/4P Spaces: Wednesday 4 Nov							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	33%	67%	67%	67%	83%	100%	100%
Occupied	67%	33%	33%	33%	17%	0%	0%

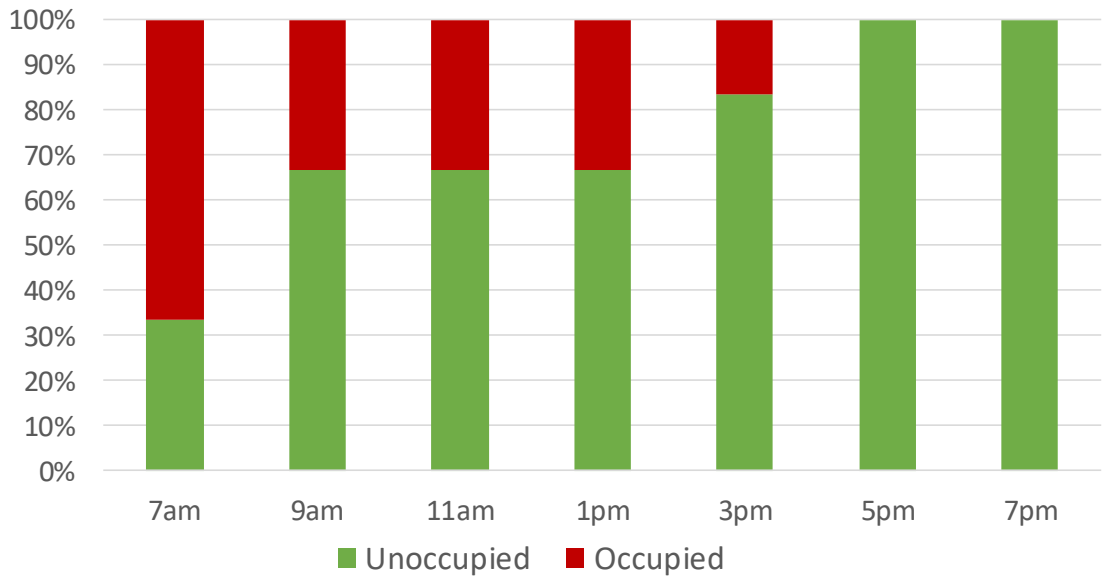


Figure 8: Parking Occupancy in 15-minute time limit spaces (Wednesday 4 Nov 2020)

Occupancy - 1/4P Spaces: Wednesday 5 May							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	80%	80%	80%	100%	80%	100%	40%
Occupied	20%	20%	20%	0%	20%	0%	60%

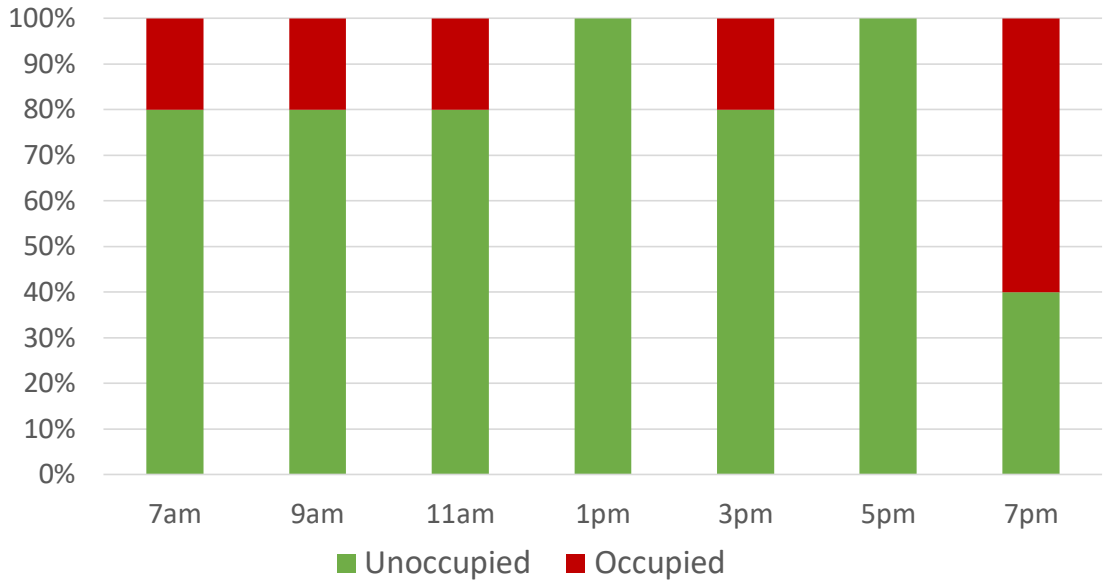


Figure 9: Parking Occupancy in 15-minute time limit spaces (Wednesday 5 May 2021)

Occupancy - 1/4P Spaces: Saturday 7 November							
Status	7am	8am	9am	10am	11am	12noon	1pm
Unoccupied	67%	50%	33%	33%	17%	33%	33%
Occupied	33%	50%	67%	67%	83%	67%	67%

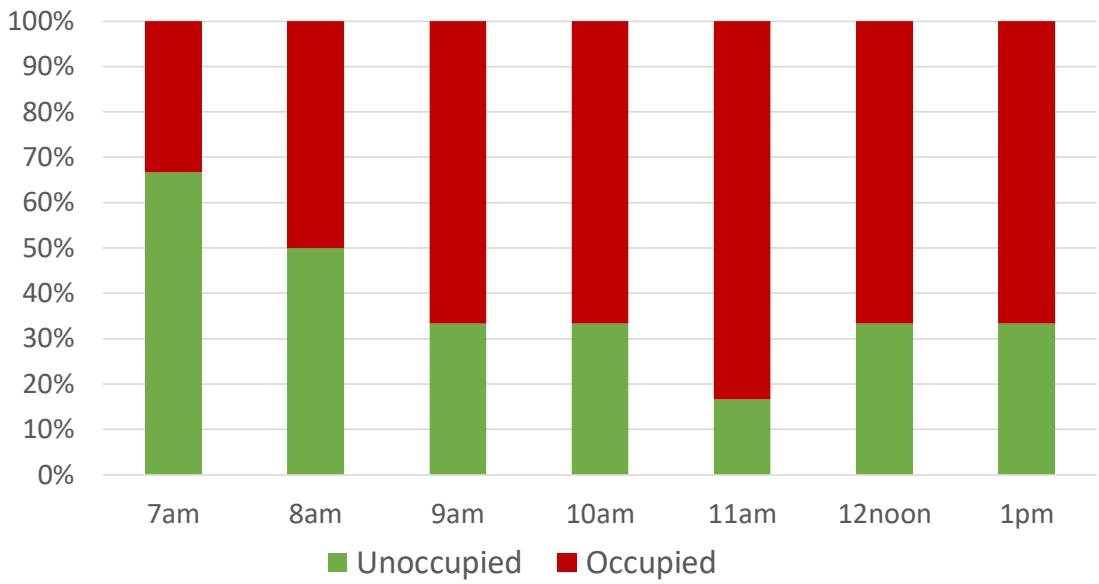


Figure 10: Parking Occupancy in 15-minute time limit spaces (Saturday 7 November 2020)

Occupancy - 1/4P Spaces: Saturday 8 May							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	100%	100%	60%	60%	60%	40%	20%
Occupied	0%	0%	40%	40%	40%	60%	80%

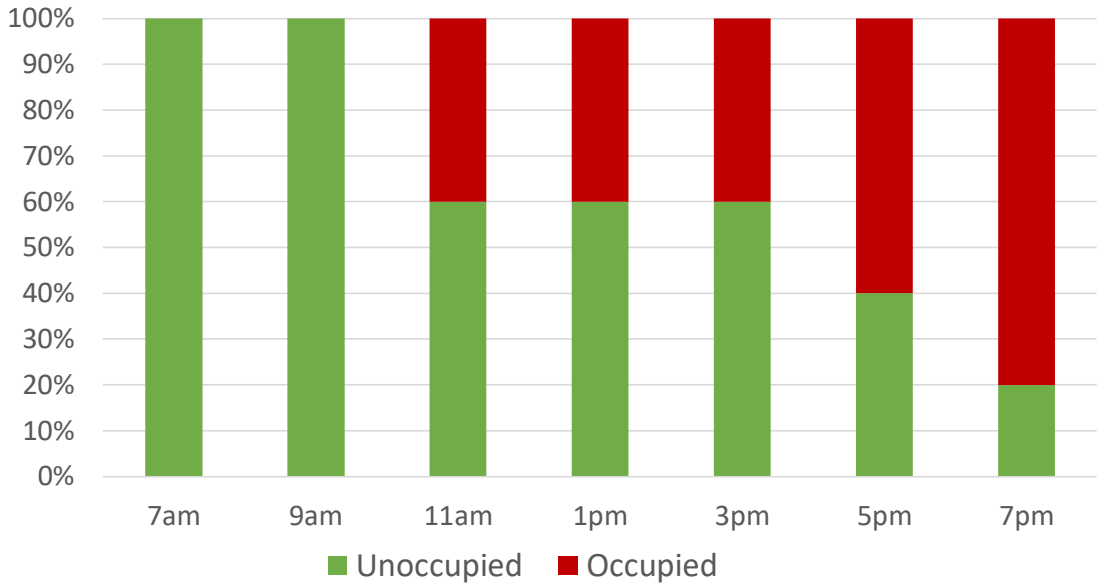


Figure 11: Parking Occupancy in 15-minute time limit spaces (Saturday 8 May 2020)

Figures 12 to 15 show occupancy on both Wednesdays and both Saturdays for the spaces that are subject to a one-hour time limit.

Occupancy - 1P Spaces: Wednesday 4 Nov							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	31%	23%	27%	23%	54%	46%	42%
Occupied	69%	77%	73%	77%	46%	54%	58%

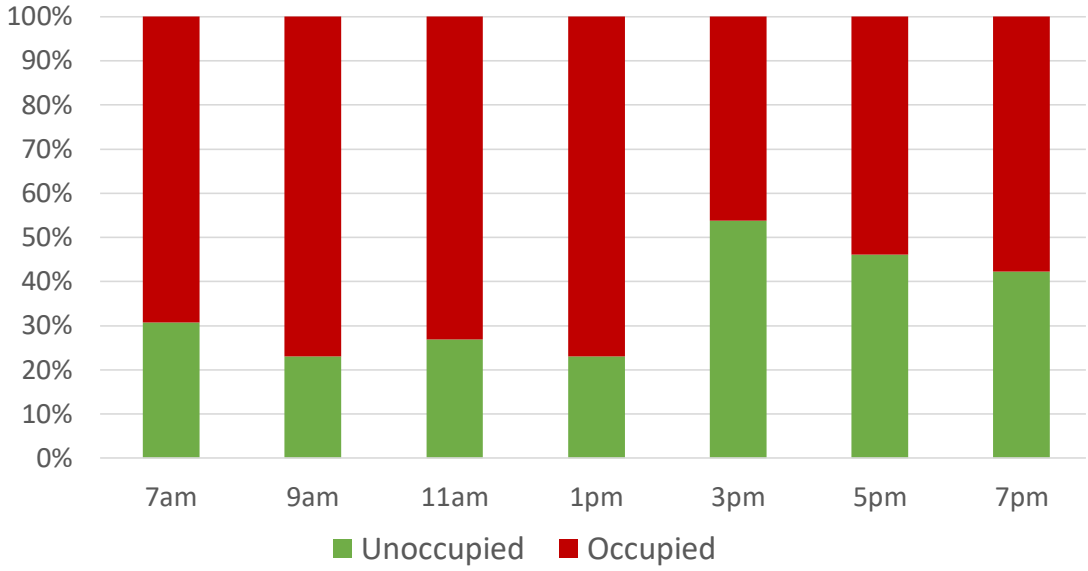


Figure 12: Parking Occupancy in one-hour time limit spaces (Wednesday 4 Nov 2020)

Occupancy - 1P Spaces: Wednesday 5 May							
Status	7am	9am	11am	1pm	3pm	5pm	7pm
Unoccupied	27%	23%	27%	20%	27%	17%	37%
Occupied	73%	77%	73%	80%	73%	83%	63%

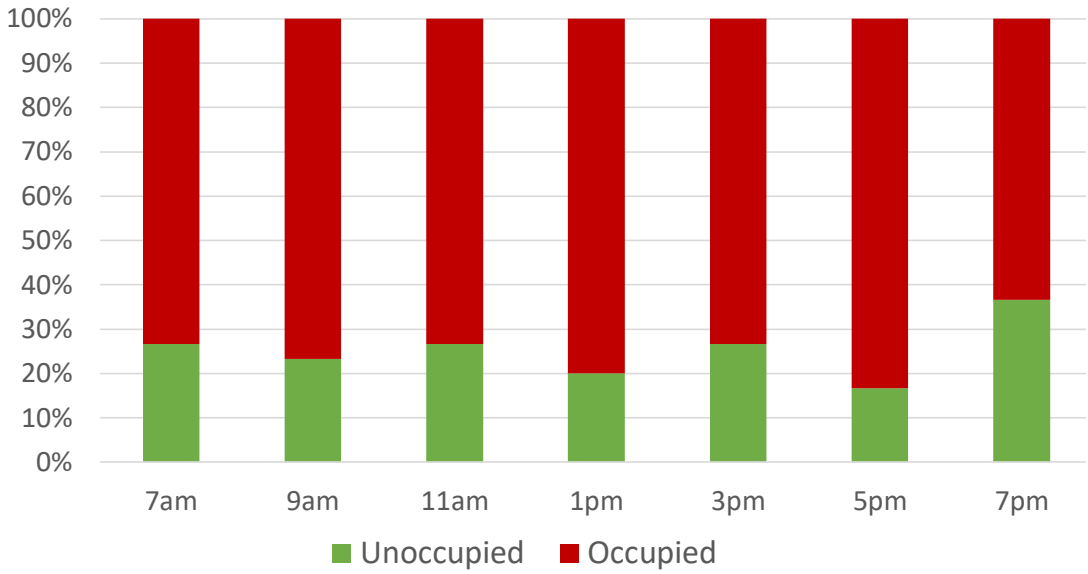


Figure 13: Parking Occupancy in one-hour time limit spaces (Wednesday 5 May 2021)

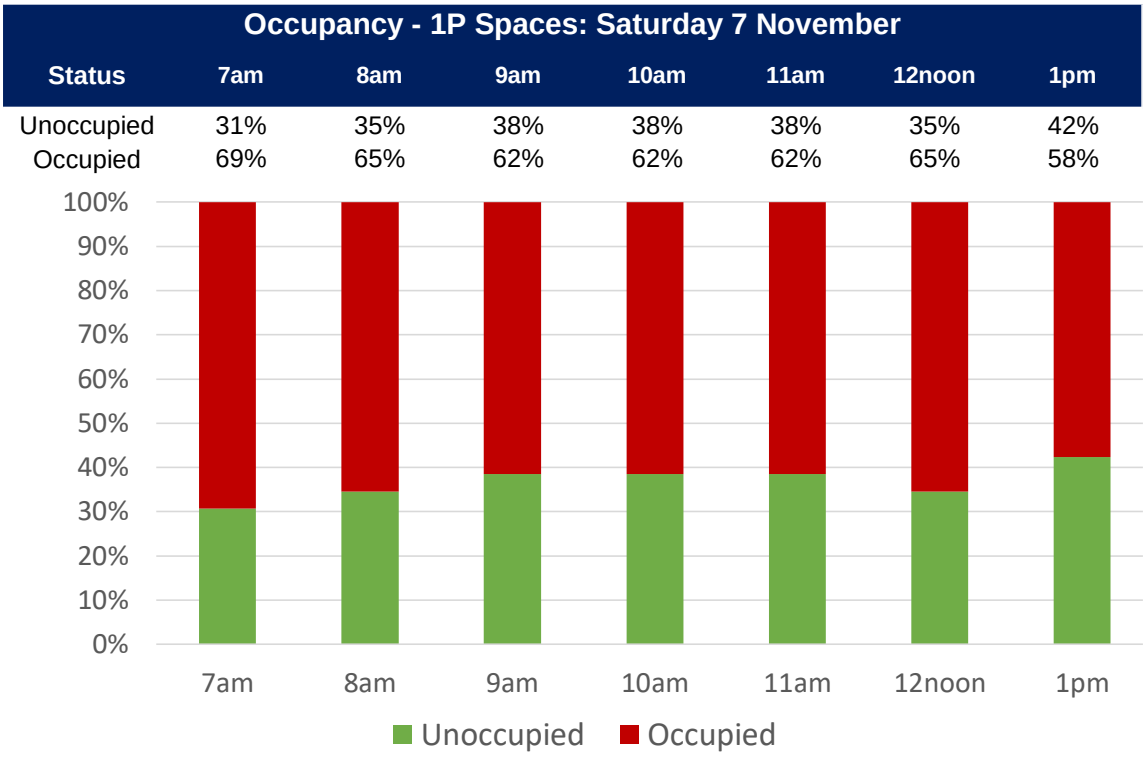


Figure 14: Parking Occupancy in one-hour time limit spaces (Saturday 7 November 2020)

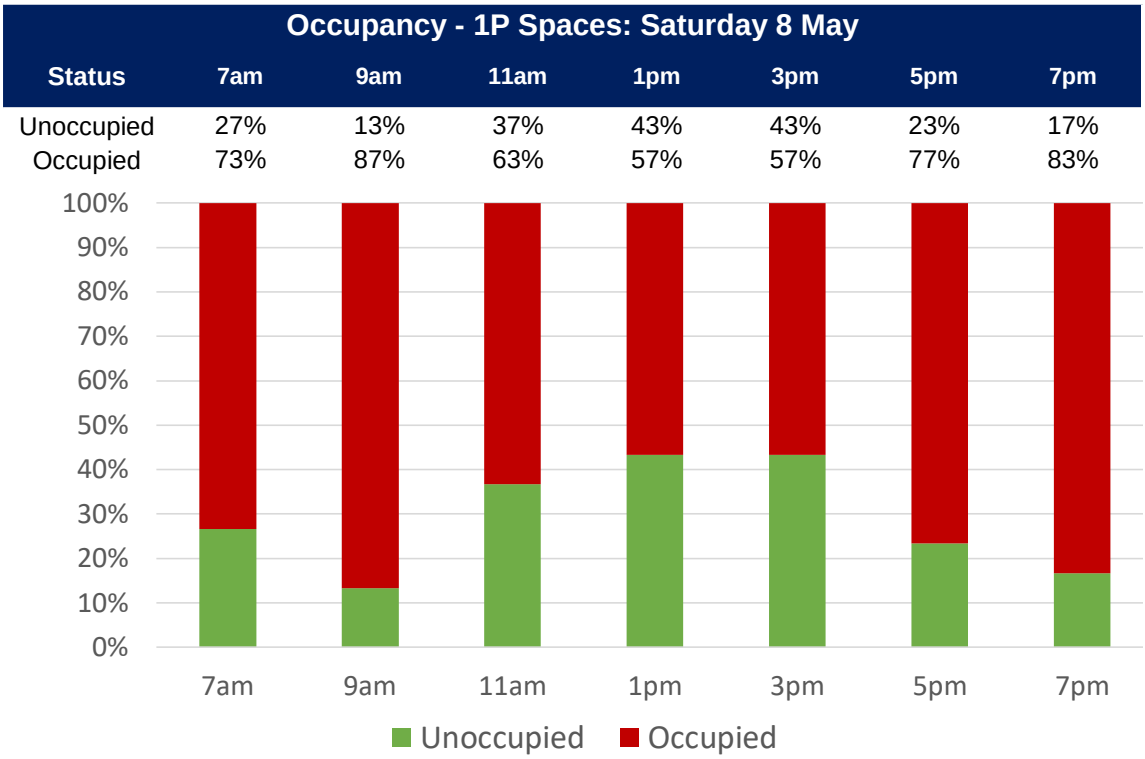


Figure 15: Parking Occupancy in one-hour time limit spaces (Saturday 8 May 2021)

Figures 16 to 19 show occupancy on both Wednesdays and both Saturdays for the spaces that are subject to a two-hour time limit.

Occupancy - 2P Spaces: Wednesday 4 Nov							
Status	**7am**	**9am**	**11am**	**1pm**	**3pm**	**5pm**	**7pm**
Unoccupied	56%	57%	57%	56%	44%	46%	54%
Occupied	44%	43%	43%	44%	56%	54%	46%

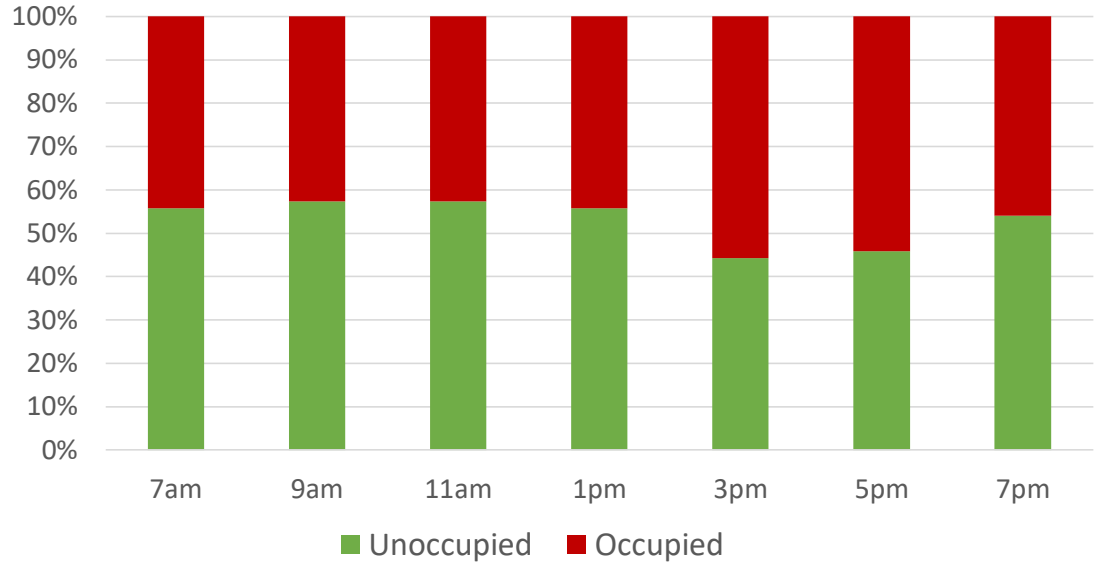


Figure 16: Parking Occupancy in two-hour time limit spaces (Wednesday 4 November 2021)

Occupancy - 2P Spaces: Wednesday 5 May							
Status	**7am**	**9am**	**11am**	**1pm**	**3pm**	**5pm**	**7pm**
Unoccupied	49%	56%	44%	41%	54%	44%	49%
Occupied	51%	44%	56%	59%	46%	56%	51%

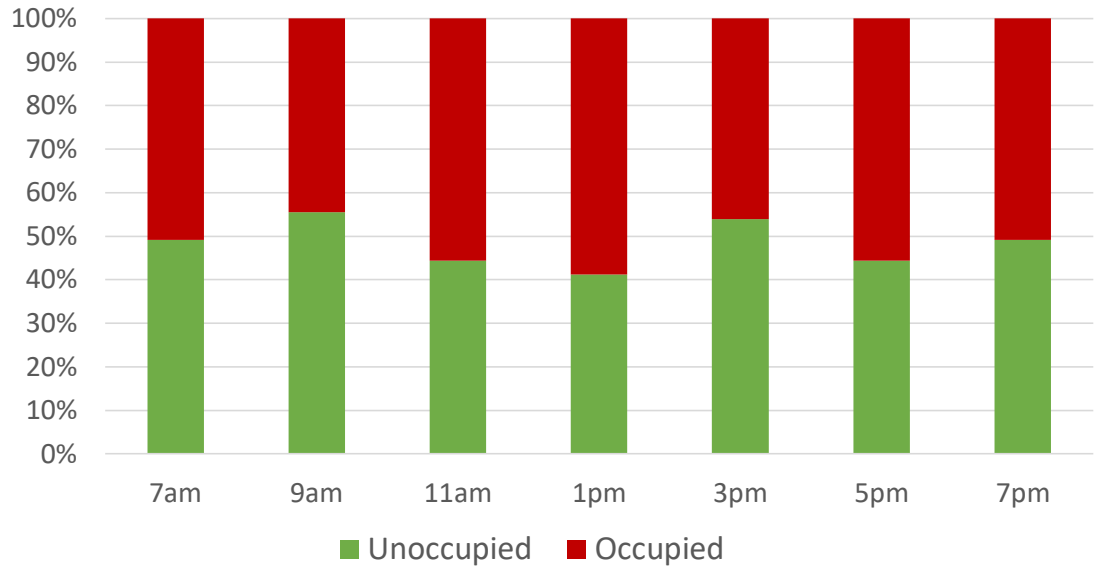


Figure 17: Parking Occupancy in two-hour time limit spaces (Wednesday 5 May 2021)

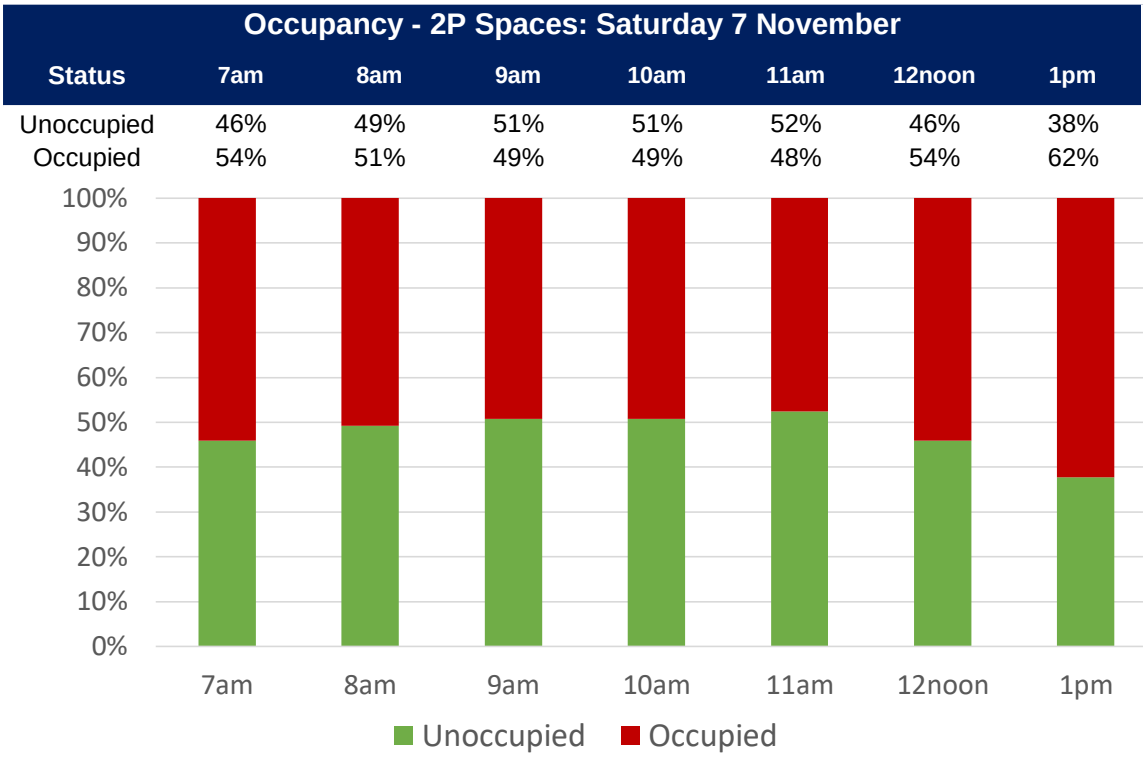


Figure 18: Parking Occupancy in two-hour time limit spaces (Saturday 7 Nov 2020)

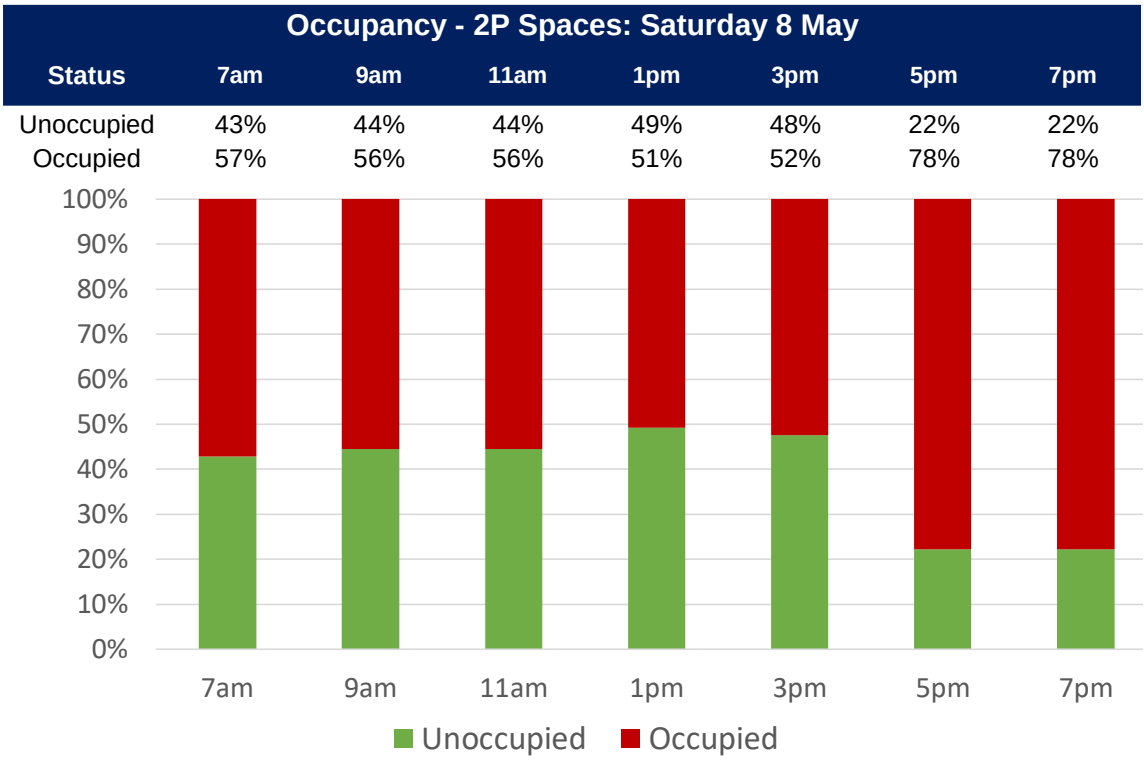


Figure 19: Parking Occupancy in two-hour time limit spaces (Saturday 8 May 2021)

Figures 20 to 23 show occupancy on both Wednesdays and both Saturdays for the spaces that are subject to a four-hour time limit.

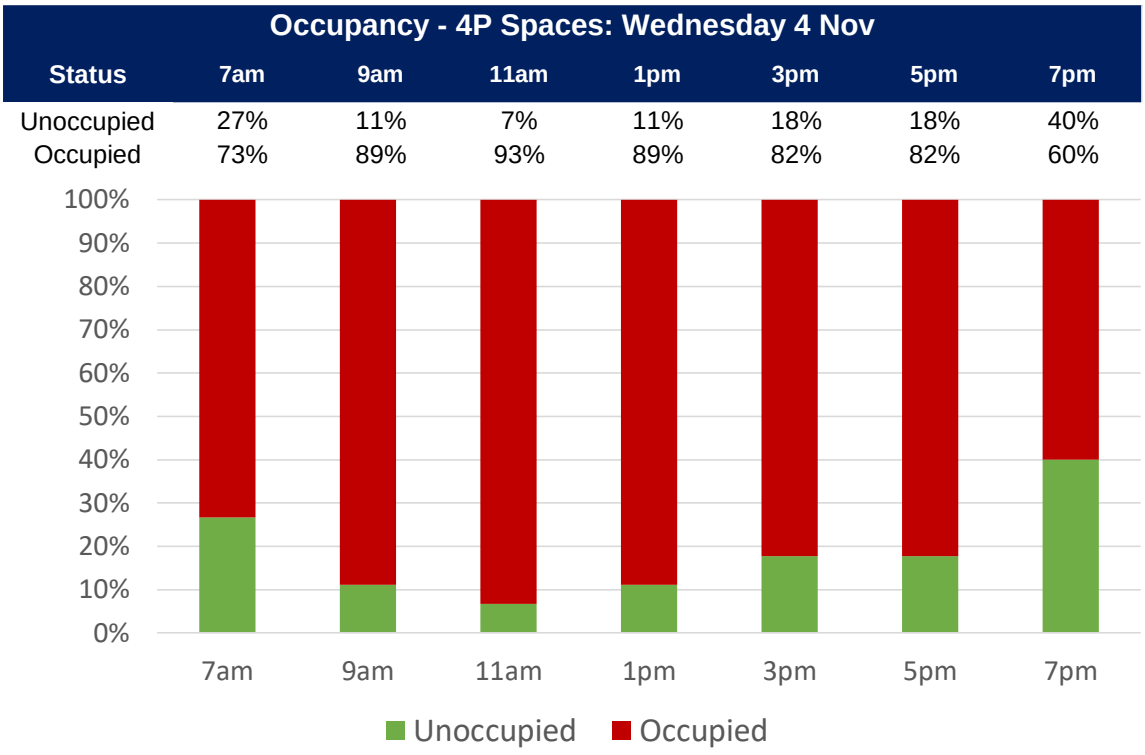


Figure 20: Parking Occupancy in four-hour time limit spaces (Wednesday)

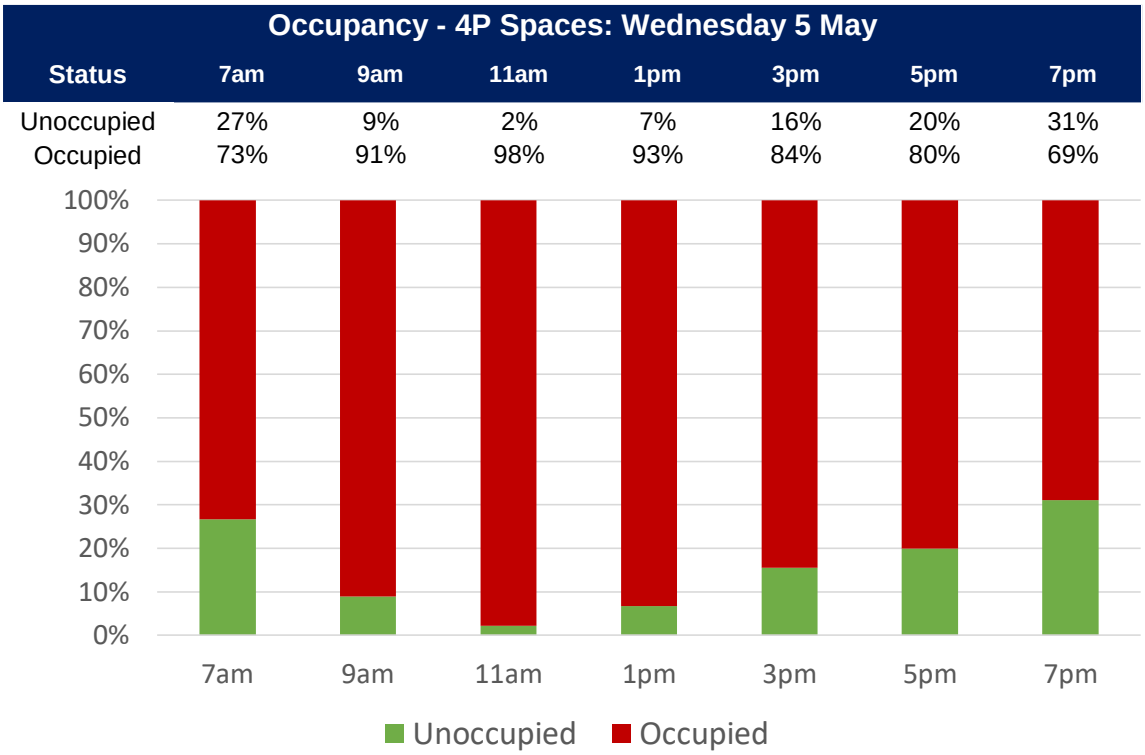


Figure 21: Parking Occupancy in four-hour time limit spaces (Wednesday 5 May 2021)

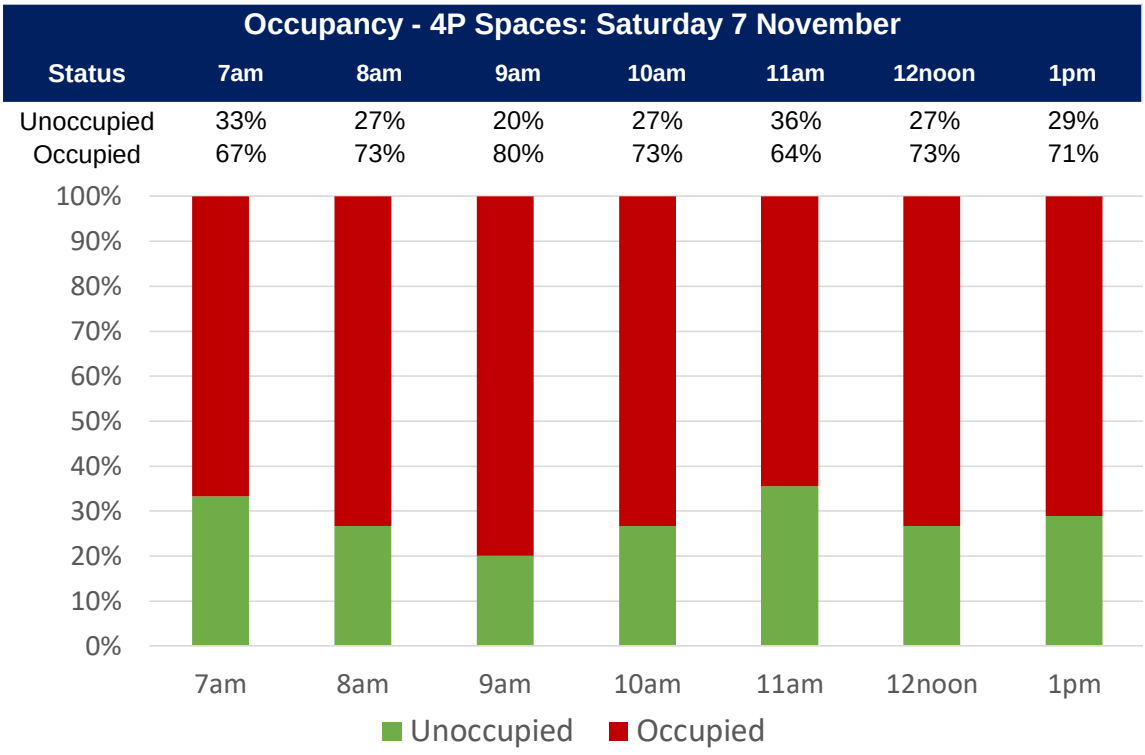


Figure 22: Parking Occupancy in four-hour time limit spaces (Saturday)

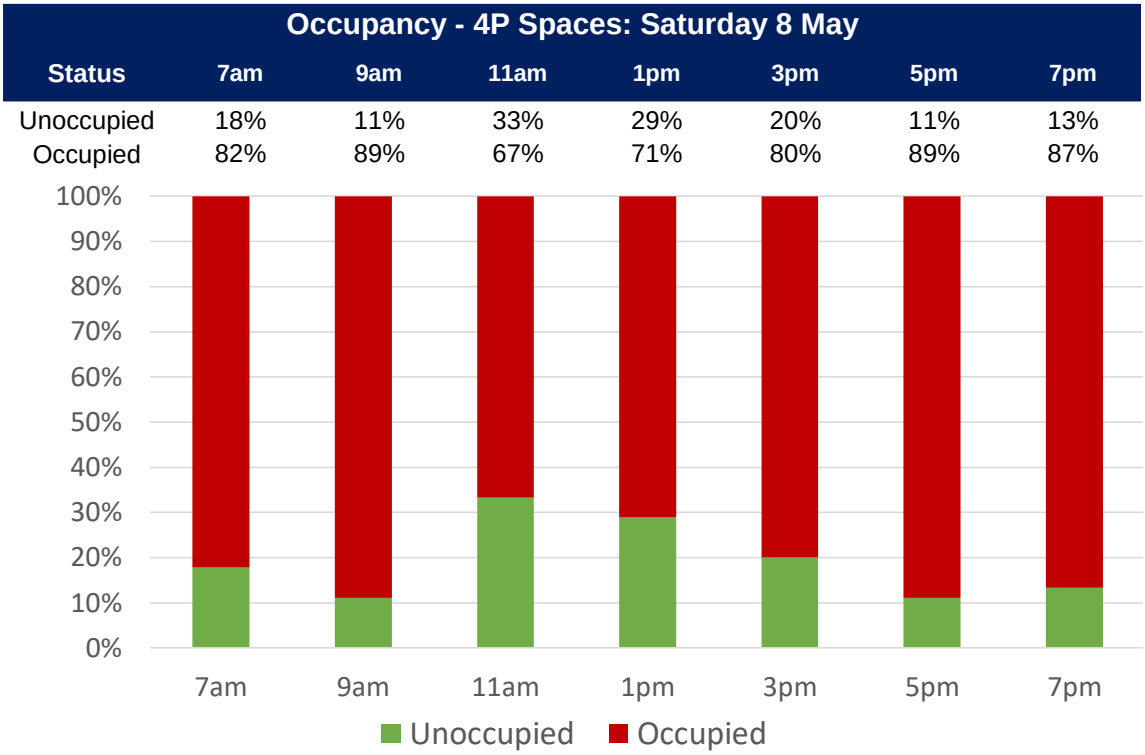


Figure 23: Parking Occupancy in four-hour time limit spaces (Saturday 8 May 2021)

Figures 24 to 27 show occupancy on both Wednesdays and both Saturdays for the five unrestricted spaces.

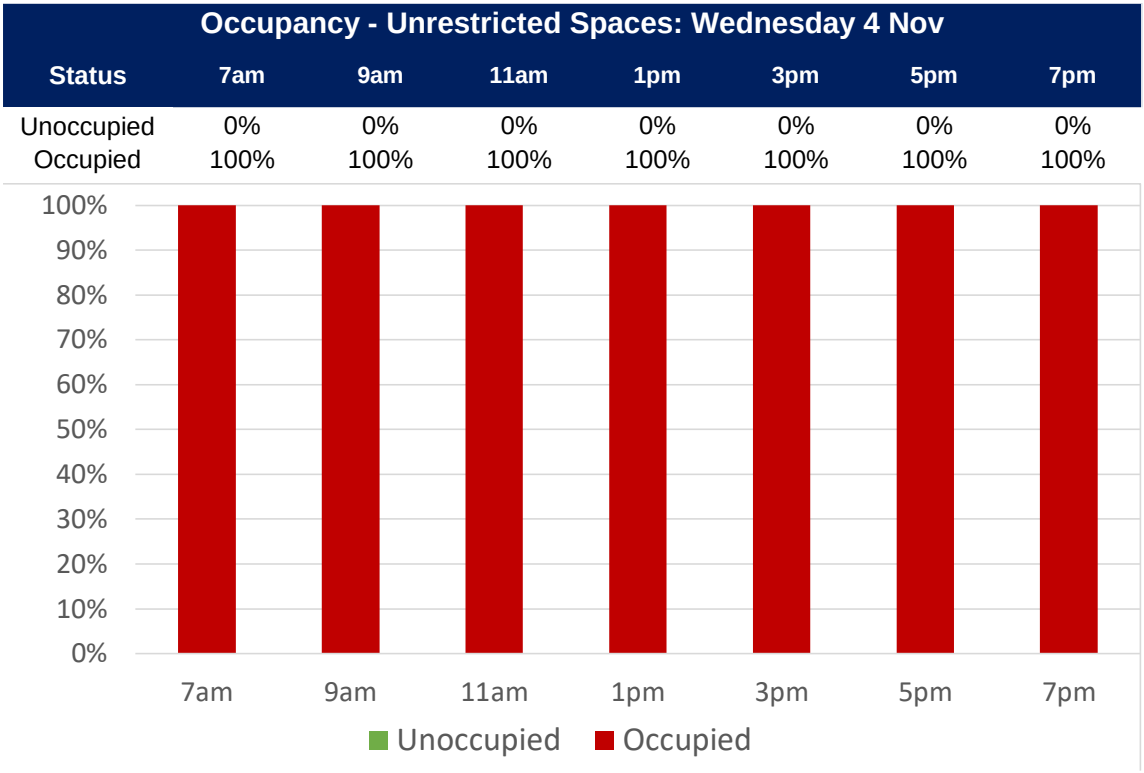


Figure 24: Parking Occupancy in unrestricted spaces (Wednesday)

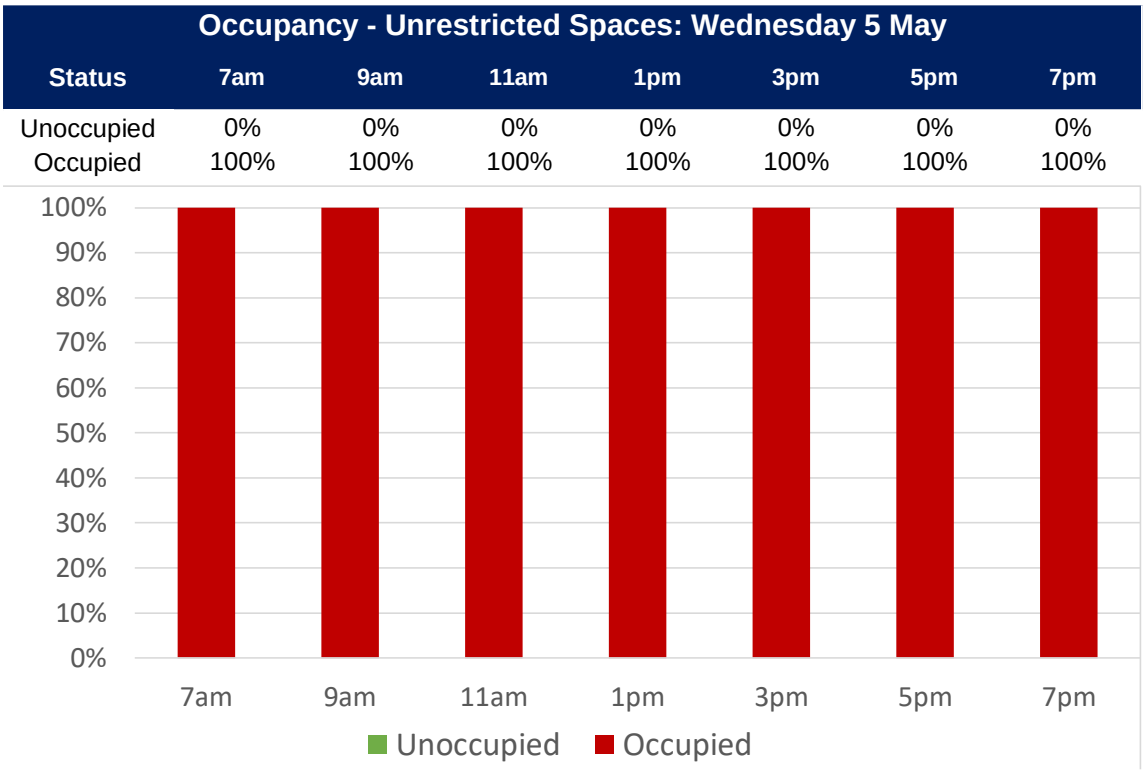


Figure 25: Parking Occupancy in unrestricted spaces (Wednesday 5 May 2020)

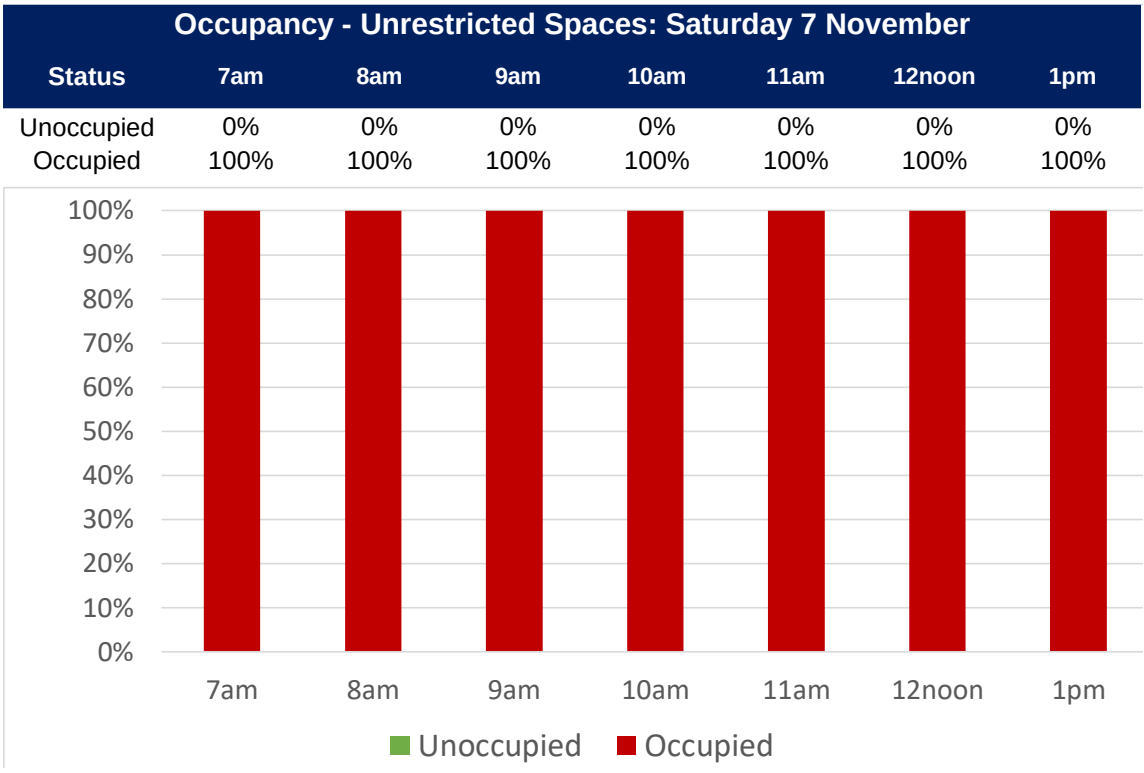


Figure 26: Parking Occupancy in unrestricted spaces (Saturday 7 November)

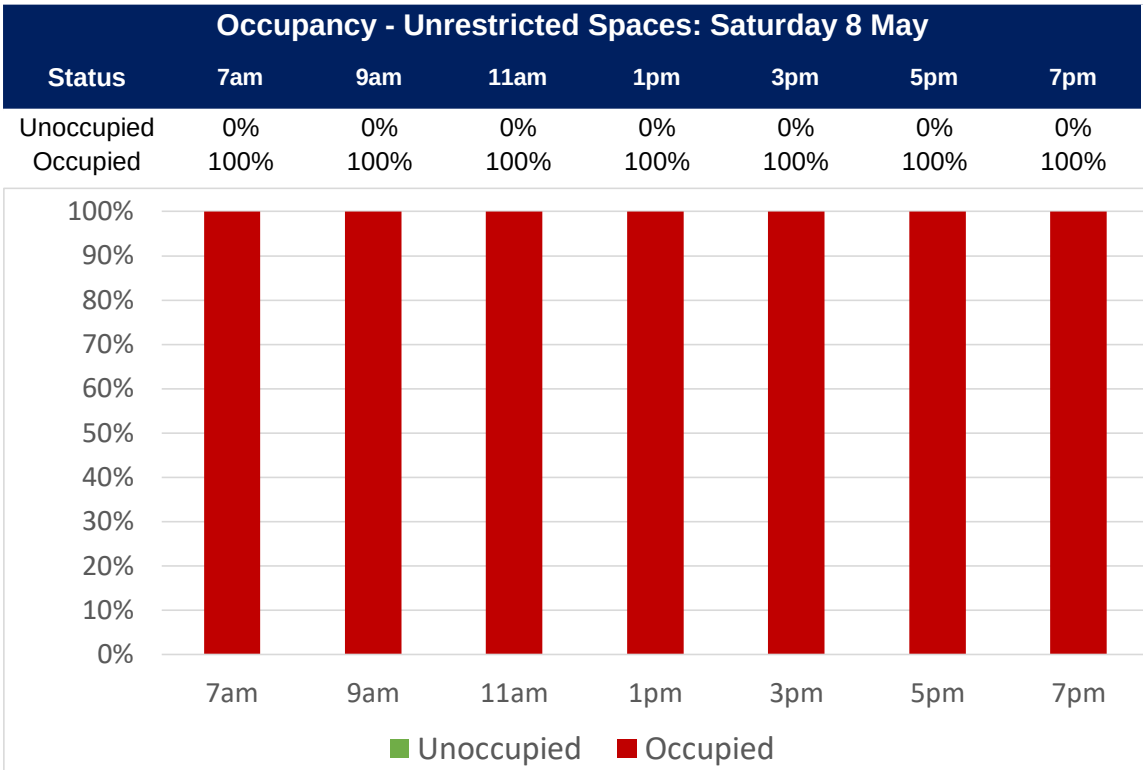


Figure 27: Parking Occupancy in unrestricted spaces (Saturday 8 May 2021)

3.4 COMPARISON OF PARKING OCCUPANCY IN SEPARATE BLOCKS OF HAWKE STREET

The parking supply (number of spaces available) and the parking occupancy (number of parking spaces occupied at various times of the day) are not uniformly distributed in the three blocks of Hawke Street that were covered by the parking surveys. Accordingly, this section presents a detailed breakdown of parking occupancy in each of the three blocks, including an analysis of the number of vehicles that displayed resident parking permits.

In this regard, it should be noted that the 149 publicly available parking spaces include 135 spaces that provide an exemption from the sign-posted parking time limits for those vehicles that display resident parking permits. These 135 spaces are referred to as 'resident priority parking' spaces – and effectively enable resident parking permit holders to park for any amount of time in parking areas that are otherwise subject to time limits for all other motorists.

The distribution of the total supply of 149 parking spaces is provided below:

- King St to Spencer St = 57 spaces (previously 54 in November 2020)
  53 of the 57 spaces are resident priority
- Spencer St to Adderley St = 51 spaces (previously 48 in November 2020)
  47 of the 51 spaces are resident priority
- Adderley St to Railway Pl = 41 spaces (same number in November 2020)
  35 of the 41 spaces are resident priority

The above parking-distribution summary highlights that there have been some small changes in the number of publicly available parking spaces between November 2020 and May 2021. This has occurred as a result of the removal of some parking spaces to allow for the establishment of cafe parklets (as part of Council's post-Covid revitalisation initiatives) and the replacement of some temporary construction permit zones with 'normal' parking. The net impact has been an increase in the overall parking supply of 6 spaces (143 spaces available in November 2020 and 149 spaces available in May 2021). This increase is manifested in two of the three blocks: (a) King to Spencer Streets; and (b) Spencer to Adderley Streets. As a result, when examining and comparing parking occupancy statistics between November 2020 and May 2021, it is important to note that where the same number of parked vehicles has been recorded (in any of the two blocks between King and Adderley Streets) it will give rise to a lower occupancy statistic (as the parking supply has increased).

The parking occupancy statistics (that are shown in the tables on the following pages) display the intensity of parking demand by the colour-code rating shown in Table 6. Cells coloured red represent the busiest parking demand with over 80% of publicly available parking spaces occupied. Cells coloured orange represent medium parking demand with between 60% to 80% of parking spaces occupied. Cells coloured green represent the lowest parking occupancy with less than 60% of spaces occupied.

Table 6: Colour-Code Rating System for Parking Occupancy

Overall Parking Occupancy Rating	Range (Proportion of Spaces Occupied)	Colour Code
Low	< 60% Occupied	
Moderate	60% - 80% Occupied	
High	> 80 % Occupied	

3.4.1 PARKING OCCUPANCY ON WEDNESDAY

Table 7 and Table 8 provide the Wednesday parking occupancy statistics. The tables reveal that on both Wednesdays the highest parking occupancy occurred in the block of Hawke Street between Spencer and Adderley Streets. The block between King and Spencer Streets exhibited the lowest parking demand (under 60%) on Wednesday 4 November 2020. Parking demand on this block was higher on Wednesday 5 May 2021, reaching 75% at 1pm.

The tables also show the number of spaces occupied by both vehicles displaying resident parking permits as well as the number of vehicles that don't display a resident parking permit (in each block and in each time period).

On Wednesday 4 November 2020, the block with the highest number of vehicles displaying resident permits was found to be the block between Adderley Street and Railway Place. In this block there were 14 resident vehicles recorded at 5pm and 7pm (times when most residents would be at home) whilst in the morning the number of vehicles displaying resident permits was found to be 12 at 7am in this same block.

In the adjacent block between Spencer and Adderley Streets, the highest number of vehicles displaying resident permits was 12 – recorded at 7am. At all other times in this block and at all times in the block between Spencer Street and King Street, there are at most 8 vehicles displaying resident parking permits.

On Wednesday 5 May 2021, a similar pattern was observed with residents' vehicles, though the parking demand overall was a little higher. It is also relevant to note that there were two blocks where the highest number of residents' vehicles was measured to be 14. This occurred in the block between Adderley Street and Railway Place (at 7pm) and in the block between King and Spencer Streets (at 7am). In the adjacent block between Spencer Street and Adderley Street, the highest number of vehicles displaying resident permits was found to be 13 – at 7am. On the basis of these survey observations, it would appear that each of the three blocks generates a maximum resident parking demand (in any given hour) of around 13-14 vehicles on weekdays.

3.4.2 PARKING OCCUPANCY ON SATURDAY

Table 9 and Table 10 provide the Saturday parking occupancy statistics. The tables reveal that on both Saturdays the highest parking occupancy occurred in the block of Hawke Street between Spencer and Adderley Streets (as was the case with the two Wednesdays). However, the Saturday in May 2021 exhibited generally much higher occupancies throughout the day compared with the Saturday in November 2020. The absolute highest occupancy recorded in the block between Spencer and Adderley Streets was 94% at 7pm on Saturday 8 May 2021. The block between King and Spencer Streets exhibited the lowest parking demand (mostly under 60%) in November 2020. However, parking demand in this block was noticeably higher in May 2021, reaching 82% at 5pm.

With respect to the number of vehicles displaying resident parking permits, the occupancies on each Saturday for the three blocks were comparable. The maximum number of parked residents' vehicles, in any given hour, was measured at 9, 14 and 20 (Saturday 7 November 2020) and 10, 13 and 18 (Saturday 8 May 2021) for the three blocks of 'King-Spencer', 'Spencer-Adderley' and 'Adderley-Railway Place' respectively. These survey observations would suggest that each of the northern two blocks generates a maximum resident parking demand (in any given hour) of around 13-14 vehicles, whereas the southern-most block between Adderley Street and Railway Place may generate a maximum resident parking demand (in any given hour) of around 20 vehicles on weekends.

Table 7: Hawke Street: Variation in Parking Occupancy on Wednesday 4 Nov 2020 (by Time of Day and by Block) (all vehicles and vehicles displaying resident parking permits)

Location in Hawke Street	Parking Occupancy at each Time Interval Surveyed						
	7am	9am	11am	1pm	3pm	5pm	7pm
Occupancy in all 3 Blocks Combined (parking supply 149 spaces of which 135 are resident priority)	60%	64%	64%	64%	61%	61%	51%
Total Number of vehicles in all 3 Blocks Combined	87	93	94	94	89	89	75
Total Number of resident vehicles in all 3 Blocks Combined	30	24	22	22	24	25	28
Total Number of non-resident vehicles in all 3 Blocks Combined	57	69	72	72	65	64	47
Occupancy King St to Spencer St **(total parking supply 57 spaces of which 53 are resident priority)**	44%	48%	52%	54%	52%	56%	46%
King St to Spencer St (total number of vehicles)	24	26	28	29	28	30	25
King St to Spencer St (resident permit vehicles only)	6	6	5	5	7	5	7
King St to Spencer St (non-resident vehicles)	18	20	23	24	21	25	18
Occupancy Spencer St to Adderley St **(total parking supply 51 spaces of which 47 are resident priority)**	81%	81%	79%	81%	58%	63%	56%
Spencer St to Adderley St (total number of vehicles)	39	39	38	39	28	30	27
Spencer St to Adderley St (resident permit vehicles only)	12	8	6	7	4	6	7
Spencer St to Adderley St (non-resident vehicles)	27	31	32	32	24	24	20
Occupancy Adderley St to Railway Pl **(total parking supply 41 spaces of which 35 are resident priority)**	59%	68%	68%	63%	80%	71%	56%
Adderley St to Railway Pl (total number of vehicles)	24	28	28	26	33	29	23
Adderley St to Railway Pl (resident permit vehicles only)	12	10	11	10	13	14	14
Adderley St to Railway Pl (non-resident vehicles)	12	18	17	16	20	15	9

Table 8: Hawke Street: Variation in Parking Occupancy on Wednesday 5 May 2021 (by Time of Day and by Block) (all vehicles and vehicles displaying resident parking permits)

Location in Hawke Street	Parking Occupancy at each Time Interval Surveyed						
	7am	9am	11am	1pm	3pm	5pm	7pm
Occupancy in all 3 Blocks Combined (parking supply 149 spaces of which 135 are resident priority)	64%	68%	74%	75%	66%	70%	64%
Total Number of vehicles in all 3 Blocks Combined	96	101	111	112	99	105	95
Total Number of resident vehicles in all 3 Blocks Combined	38	24	21	20	26	32	24
Total Number of non-resident vehicles in all 3 Blocks Combined	58	77	90	92	73	73	71
Occupancy King St to Spencer St **(total parking supply 57 spaces of which 53 are resident priority)**	61%	54%	67%	75%	54%	63%	63%
King St to Spencer St (total number of vehicles)	35	31	38	43	31	36	36
King St to Spencer St (resident permit vehicles only)	14	6	6	6	11	11	8
King St to Spencer St (non-resident vehicles)	21	25	32	37	20	25	28
Occupancy Spencer St to Adderley St **(total parking supply 51 spaces of which 47 are resident priority)**	75%	82%	82%	84%	78%	82%	75%
Spencer St to Adderley St (total number of vehicles)	38	42	42	43	40	42	38
Spencer St to Adderley St (resident permit vehicles only)	13	7	3	2	4	8	2
Spencer St to Adderley St (non-resident vehicles)	25	35	39	41	36	34	36
Occupancy Adderley St to Railway Pl **(total parking supply 41 spaces of which 35 are resident priority)**	56%	68%	76%	63%	68%	66%	51%
Adderley St to Railway Pl (total number of vehicles)	23	28	31	26	28	27	21
Adderley St to Railway Pl (resident permit vehicles only)	11	11	12	12	11	13	14
Adderley St to Railway Pl (non-resident vehicles)	12	17	19	14	17	14	7

Table 9: Hawke Street: Variation in Parking Occupancy on Saturday 7 Nov 2020 (by Time of Day and by Block) (all vehicles and vehicles displaying resident parking permits)

Location in Hawke Street	Parking Occupancy at each Time Interval Surveyed						
	7am	9am	11am	1pm	3pm	5pm	7pm
Occupancy in all 3 Blocks Combined (parking supply 149 spaces of which 135 are resident priority)	60%	61%	62%	60%	58%	63%	64%
Total Number of vehicles in all 3 Blocks Combined	88	89	91	88	84	92	94
Total Number of resident vehicles in all 3 Blocks Combined	40	33	31	30	28	27	25
Total Number of non-resident vehicles in all 3 Blocks Combined	48	56	60	58	56	65	69
Occupancy King St to Spencer St **(total parking supply 57 spaces of which 53 are resident priority)**	50%	50%	59%	48%	46%	57%	63%
King St to Spencer St (total number of vehicles)	27	27	32	26	25	31	34
King St to Spencer St (resident permit vehicles only)	6	9	7	8	8	8	9
King St to Spencer St (non-resident vehicles)	21	18	25	18	17	23	25
Occupancy Spencer St to Adderley St **(total parking supply 51 spaces of which 47 are resident priority)**	75%	77%	77%	75%	75%	73%	71%
Spencer St to Adderley St (total number of vehicles)	36	37	37	36	36	35	34
Spencer St to Adderley St (resident permit vehicles only)	14	11	10	11	10	7	7
Spencer St to Adderley St (non-resident vehicles)	22	26	27	25	26	28	27
Occupancy Adderley St to Railway Pl **(total parking supply 41 spaces of which 35 are resident priority)**	61%	61%	54%	63%	56%	63%	63%
Adderley St to Railway Pl (total number of vehicles)	25	25	22	26	23	26	26
Adderley St to Railway Pl (resident permit vehicles only)	20	13	14	11	10	12	9
Adderley St to Railway Pl (non-resident vehicles)	5	12	8	15	13	14	17

Table 10: Hawke Street: Variation in Parking Occupancy on Saturday 8 May 2021 (by Time of Day and by Block) (all vehicles and vehicles displaying resident parking permits)

Location in Hawke Street	Parking Occupancy at each Time Interval Surveyed						
	7am	9am	11am	1pm	3pm	5pm	7pm
Occupancy in all 3 Blocks Combined (parking supply 149 spaces of which 135 are resident priority)	70%	75%	62%	60%	66%	85%	87%
Total Number of vehicles in all 3 Blocks Combined	105	112	93	90	99	126	129
Total Number of resident vehicles in all 3 Blocks Combined	35	37	30	31	27	30	22
Total Number of non-resident vehicles in all 3 Blocks Combined	70	75	63	59	72	96	107
Occupancy King St to Spencer St **(total parking supply 57 spaces of which 53 are resident priority)**	70%	65%	60%	53%	65%	82%	81%
King St to Spencer St (total number of vehicles)	40	37	34	30	37	47	46
King St to Spencer St (resident permit vehicles only)	5	10	6	6	7	8	7
King St to Spencer St (non-resident vehicles)	35	27	28	24	30	39	39
Occupancy Spencer St to Adderley St **(total parking supply 51 spaces of which 47 are resident priority)**	75%	92%	73%	73%	75%	88%	94%
Spencer St to Adderley St (total number of vehicles)	38	47	37	37	38	45	48
Spencer St to Adderley St (resident permit vehicles only)	12	12	11	13	9	8	6
Spencer St to Adderley St (non-resident vehicles)	26	35	26	24	29	37	42
Occupancy Adderley St to Railway Pl **(total parking supply 41 spaces of which 35 are resident priority)**	66%	68%	54%	56%	59%	83%	85%
Adderley St to Railway Pl (total number of vehicles)	27	28	22	23	24	34	35
Adderley St to Railway Pl (resident permit vehicles only)	18	15	13	12	11	14	9
Adderley St to Railway Pl (non-resident vehicles)	9	13	9	11	13	20	26

3.5 COMPARISON WITH HISTORIC PARKING STUDIES

Comprehensive parking surveys were undertaken in the study area in February 2015 (nearly six years before the November 2020 surveys and over six years before the latest May 2021 surveys). The original surveys were part of a study examining the likely traffic and parking impacts arising from the possible expansion of the park on the corner of Hawke and Adderley Streets. That park expansion has now taken place.

The 2015 surveys captured parking occupancy in a similar section of Hawke Street as the current study (between Railway Place and Spencer Street), as well as a short section of Adderley Street (between Abbotsford Street and Roden Street). That area accommodated 154 on-street parking spaces.

The November 2020 and May 2021 parking surveys did not cover any parking spaces on Adderley Street but covered a longer section of Hawke Street (between Railway Place and King Street) – where there are a total of 149 parking spaces (just short of the 154 surveyed in 2015). Whilst the survey area and the times did not coincide perfectly, a comparison of the findings provides a useful indication of how the conditions in November 2020 may have been affected by the Covid-19 pandemic, as well as how the conditions in May 2021 could reflect a return to normal conditions or to a new normal.

Table 11 compares the 2015 parking occupancy (which was based on weekday data) with data collected on Wednesday 4 November 2020 and Wednesday 5 May 2021. The table shows that the 2020 parking occupancy was lower than in 2015, for the corresponding time periods, which would suggest that the findings are reasonably representative of activity in the area pre-Covid. The table also shows that the 2021 parking occupancy was very similar to that recorded in 2015.

Table 11: Comparison of 2015 and 2020 Parking Surveys

Period	Parking Occupancy Proportion of Parking Spaces Occupied and Time		
	Surveys in February 2015	Surveys in November 2020	Surveys in May 2021
Early morning	68% (6.30am)	60% (7.00am)	64% (7.00am)
Lunchtime	71% (12 noon)	64% (11.00am) & 64% (1.00pm)	75% (11.00am) & 75% (1.00pm)
Late Afternoon	69% (4.00pm)	61% (3.00pm) & 61% (5.00pm)	66% (3.00pm) & 71% (5.00pm)
Evening	64% (7.30pm)	51% (7.00pm)	64% (7.00pm)

4 KEY FINDINGS

The parking surveys covered the 149 publicly available parking spaces in Hawke Street between Railway Place and King Street. A summary comparison of key parking statistics is provided in Table 12 and Table 13.

Table 12: Comparison of Weekday Parking Statistics on Hawke Street (weekdays)

Statistic	Wednesday 4 November 2020	Wednesday 5 May 2021
Total Cars Parked between 7am & 7pm	220	310
Cars with resident permit over the 12-hour survey period	37 (17%)	71 (23%)
Non-resident cars	183 (83%)	239 (77%)
Peak occupancy	64% at 11am and 1pm	75% at 1pm
Overall occupancy	62%	68%

Table 13: Comparison of Weekend Parking Statistics on Hawke Street (weekend days)

Statistic	Saturday 7 November 2020	Saturday 8 May 2021
Total Cars Parked between 7am & 7pm	173	289
Cars with resident permit over the 12-hour survey period	50 (29%)	64 (22%)
Non-resident cars	123 (71%)	275 (78%)
Peak occupancy	64% at 7pm	87% at 7pm
Overall occupancy	63%	73%

Occupancy levels were higher during all hours surveyed for the May 2021 Wednesday and Saturday, compared to the respective weekday and weekend days in November 2020. The November 2020 parking surveys were undertaken just before further relaxation of the lockdown restrictions was implemented. As a result, it is probable that the parking surveys undertaken in November 2020 were not fully representative of parking conditions that would have normally been present in the study area. First, the first set of changes to restrictions had just been implemented. Second, even though some restrictions had been lifted a few days before, places like restaurants still had limits on the number of patrons allowed. Lastly, most people were likely still hesitant to engage in social activities given the length of the lockdown period. Within this context, the May 2021 parking surveys more closely represent parking conditions that are comparable to data from previous years, either because patterns have returned to 'normal' or settled into a 'new normal'.

In addition, there is some football-parking influence evident in the late afternoon / early evening at the southern end of Hawke Street – as an AFL game at Marvel Stadium started at 4.35pm game on Saturday 8 May 2021 between North Melbourne and Collingwood. Observations of vehicle occupants during that period suggest some of the parking spaces at the southern end of Hawke Street (particularly between Railway Place and Adderley Street) appeared to be taken by 'football fans'. The number of spaces occupied by 'football fans' was possibly half a dozen or more. This presence of football-related parking started in the 1-hour period before the game 'kick-off' time (and lasted until fans returned after the game ended – at around 7.30-8.00pm).