

**HORNSBY SHIRE COUNCIL**

**CAR PARKING MANAGEMENT STUDY**

**PART D – UTILISATION SURVEYS**

# VERSION CONTROL

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3			

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## SUMMARY OF RESULTS

Precinct	Current Restrictions	Trip Origin (% outside of LGA)	Occupancy	Average Stay (hours)	Findings
<b>Hornsby Town Centre</b>					
On-street (4652 bays, 550 bays time restricted)	1/4P, 1/2P, 1P, 2P, 3P		92%	3.6	Nearly operating at capacity. Average stay indicates long stay and staff parking. Limited access for short stays.
Off-street (2397 bays, 931 bays time restricted)	2P Dural Street, 3P Dural Lane. Pay parking Aquatic Centre		89%	3.7	Dural Street and Lane operating near capacity with high levels of non-compliance.
<b>Hornsby Hospital</b>					
On-street (1056 bays, 80 bays time restricted)	1P, 2P, 3P		92%	4.9	Current parking demand, primarily from long term parking hospital staff, impede on residential areas and parking overspill is evident.
Off-street (201 bays, 63 bays time restricted)	3P		84%	3.1	Hospital car park operating at 60-70% capacity.  Operating at reasonable occupancy with reasonable compliance.
<b>Waitara</b>					
On-street (1652 bays, 584 bays time restricted)	1/2P, 1P, 2P, 4P		92%	4.4	Current parking demands within Waitara impede on residential areas as the demand for long term commuter parking is high.
Off-street (144 bays, 2 bays time restricted)	4P		83%	4.7	Owners and tenants own more than one vehicle and park their second vehicle on-street utilising highly desirable town centre parking bays.

Precinct	Current Restrictions	Trip Origin (% outside of LGA)	Occupancy	Average Stay (hours)	Findings
<b>Berowra Town</b>					
On-street (584 bays, 82 bays time restricted)	1P, 2P	24.59%	50%	2.1	Current time restricted bays are not being used by commuters.
Off-street (626 bays, 125 bays time restricted)	4P	24.59%	96%	6.0	Commuter parking overspill is occurring at the Community centre and along Pacific Highway.
<b>Brooklyn</b>					
On-street (1199 bays, 53 bays time restricted)	4P	34.83%	58%	2.1	Commuter parking overspill is occurring around the activity centres.
Off-street (664 bays, 118 bays time restricted)	2P, 4P	34.83%	38%	1.2	Operating near capacity on weekends at carparks near certain activity centres.
<b>Berowra Waters</b>					
On-street (332 bays, 0 bay, time restricted)	N/A	24.59%	23%	1.9	Demand during weekends impacts the availability of River Resident Parking.
Off-street (288 bays, 0 bay time restricted)	N/A	24.59%	59%	2.9	The rooftop level of the multideck car park is underutilised.
<b>Asquith</b>					
On-street (1199 bays, 53 bays time restricted)	1/4P, 1/2P, 1P, 2P	35.51%	57%	3.1	Owners and tenants own more than one vehicle and park their second vehicle on-street utilising highly desirable town centre parking bays.
Off-street (287 bays, 49 bays time restricted)	2P, 3P	35.51%	71%	3.4	Operating at reasonable occupancy with possible improvements to compliance.

Precinct	Current Restrictions	Trip Origin (% outside of LGA)	Occupancy	Average Stay (hours)	Findings
<b>Beecroft</b>					
On-street (787 bays, 110 bays time restricted)	1/4P, 1P, 2P	33.90%	57%	3.7	Current time restricted bays are not being used by commuters.
Off-street (465 bays, 277 bays time restricted)	2P, 3P	33.90%	99%	3.2	Currently impeding on residential areas as the demand for long term commuter parking is high.
<b>Cheltenham</b>					
On-street (828 bays, 113 bays time restricted)	1/4P	35.23%	58%	3.8	Current time restricted bays are not being used by commuters.
Off-street (6 bays, 0 bay time restricted)	2P, 3P	35.23%	N/A	N/A	Bays are not being used by commuters.
<b>Pennant Hills</b>					
On-street (1420 bays, 391 bays time restricted)	1/4P, 1/2P, 1P, 3P	38.97%	81%	2.9	Current parking demand, primarily from long term parking commuters and staff, impede on residential areas and parking overspill is evident.
Off-street (477 bays, 333 bay time restricted)	1/4P, 2P, 3P	38.97%	87%	3.8	Carparks near library and shopping centre operating near capacity with high levels of non-compliance.
<b>Thornleigh</b>					
On-street (829 bays, 131 bays time restricted)	1/4P, 1P, 2P 3P	35.35%	52%	2.3	Current time restricted bays are not being used by commuters. Overspill from other activity centres evident.
Off-street (1152 bays, 50 bay time restricted)	2P, 10mins	35.35%	88%	2.9	Current parking demand, primarily from long term parking commuters and staff, impede on residential areas and parking overspill is evident.

Precinct	Current Restrictions	Trip Origin (% outside of LGA)	Occupancy	Average Stay (hours)	Findings
<b>Cherrybrook Town Centre</b>					
On-street (1703 bays, 232 bays time restricted)	4P	27.41%	48%	3	Commuter overspill for buses evident.
Off-street (990 bays, 319 bay time restricted)	3P	27.41%	100%	3.1	Operating at very high occupancy throughout the week with reasonable compliance.
<b>Normanhurst</b>					
On-street (619 bays, 37 bays time restricted)	1/4P, 1P, 2P	38.94%	45	3.2	Non-time restricted bays used by commuters, reasonable compliance for restricted bays.
Off-street (0 bay, 0 bay time restricted)	N/A	N/A	N/A	N/A	N/A
<b>Cherrybrook Metro Precinct</b>					
On-street (1039 bays, 333 bays time restricted)	4P	21.28%	35%	1.9	Overspill from commuter carpark highly evident.
Off-street (525 bays, 0 bay time restricted)	N/A	21.28%	98%	4.3	Operating at full capacity during weekdays.
<b>Fagan Park</b>					
On-street (474 bays, 0 bay time restricted)	N/A	33.90%	1%	0	Underutilised throughout weekdays.
Off-street (135 bays, 0 bay time restricted)	N/A	33.90%	6%	0.1	Underutilised throughout weekdays.

Precinct	Current Restrictions	Trip Origin (% outside of LGA)	Occupancy	Average Stay (hours)	Findings
<b>Galston Village Precinct Village Precinct</b>					
On-street (200 bays, 27 bays time restricted)	1/2P, 3P	32.37%	74%	2.1	Operating at high capacity throughout the week, with owners and tenants own more than one vehicle and park their second vehicle on-street.
Off-street (198 bays, 67 bay time restricted)	1/4P, 1P, 2P	32.37%	81%	0.9	Carpark operating at high capacity throughout the week, with certain parts of the carpark being underutilised.
<b>Salisbury Rd &amp; Leighton Place Industrial Precinct</b>					
On-street (615 bays, 10 bays time restricted)	Bus zone with time restrictions	29.68%	75%	5.7	Current parking demand, primarily from long term parking staff, impede on possible customers seeking to park in the area.
Off-street (525 bays, 0 bay time restricted)	N/A	N/A	N/A	N/A	

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# **STAGE 1**

**HORNSBY TOWN CENTRE**

**HORNSBY HOSPITAL PRECINCT**

**WAITARA STUDY AREA**

**BEROWRA TOWN CENTRE PRECINCT**

# 1 STAGE 1 PARKING INVENTORY AND UTILISATION SURVEY RESULTS

## 1.1 SURVEY METHODOLOGY

Council engaged Trans Traffic Surveys (TTS) to undertake the parking supply and demand surveys. The surveys were conducted, on Thursday 2 August 2018, and Saturday 4 August 2018, between 8.00am and 6.00pm at 60 minute time intervals on both days. Automatic licence plate recognition (ANPR) technology was used to survey the study area. This comprised an unobtrusive camera which was attached to a vehicle.

A basic inventory of parking supply was developed using a combination of camera recognition software, site inspection and a review of existing information.

### 1.1.1 PARKING SUPPLY SURVEY

Using information supplied by Council and site visits, a detailed inventory of current parking facilities was prepared. The time restrictions for all parking was recorded in the inventory.

The following was included:

- Public on-street.
- Public off-street.
- Private off-street – where access was available.
- Parking for persons with a disability.
- Taxi ranks.
- Bus parking.
- Loading zones (delivery vehicles).
- Parking for drivers with prams.
- Motorcycle parking.
- No parking zones.
- No stopping zones.

The inventory included both marked and unmarked parking supply.

### 1.1.2 PARKING UTILISATION SURVEY

This survey investigated:

- Car parking demand at various times of the day.
- Average parking demand.
- Peak car parking demand and time period.
- Bay turnover.
- Car parking duration of stay.

### 1.1.3 PARKING OCCUPANCY BENCHMARK

Parking occupancy is one of the central concepts in parking management. Whether in reference to on-street parking or to an off-street car park, parking occupancy describes the percentage of spaces that are occupied at any given time. Parking occupancy rates, also called 'utilisation', reflect the relationship between parking supply and demand. Ideally, the occupancy of parking facilities should be high enough to ensure that they are occupied at a level that justifies that parking as a necessary land use, but not so high that it is unreasonably difficult to find a space.

Generally, parking is considered 'at capacity' when available spaces are 85% occupied for on-street and 95% occupied for off-street at times of peak demand.<sup>1</sup>

85% occupancy at times of peak demand means that approximately one parking space in every seven should be vacant. When peak parking occupancy (the average of the four highest hours of demand in a day) is regularly above 85%, a change to the parking management approach is necessary. This 85% benchmark is a recognised best practice approach to the management of on-street parking. It means that the parking resource is well used but people can still easily find a space, thus reducing customer frustration and congestion.

#### 1.1.4 DURATION AND TURNOVER

Parking duration, Average Length of Stay (ALS), refers to the length of time a vehicle occupies a space. Turnover per bay describes how frequently a parking space becomes available or 'turns over' during an hour.

A low occupancy rate in an area means that there are many spaces that are empty or unused. While this may be convenient for drivers travelling to that destination, low occupancy rates can also mean that oversupplies of parking or inappropriate parking prices exist in the area. By contrast, an area, or precinct that has a very high level of occupancy could mean that the available parking supply needs additional management to accommodate the appropriate demand.

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<sup>1</sup> Shoup Donald 2005, 'The High Cost of Free Parking. American Planning Association *Part II: Section 12*.

## 1.2 HORNSBY TOWN CENTRE

The study area for the Hornsby Town Centre is presented in Figure 1.1.

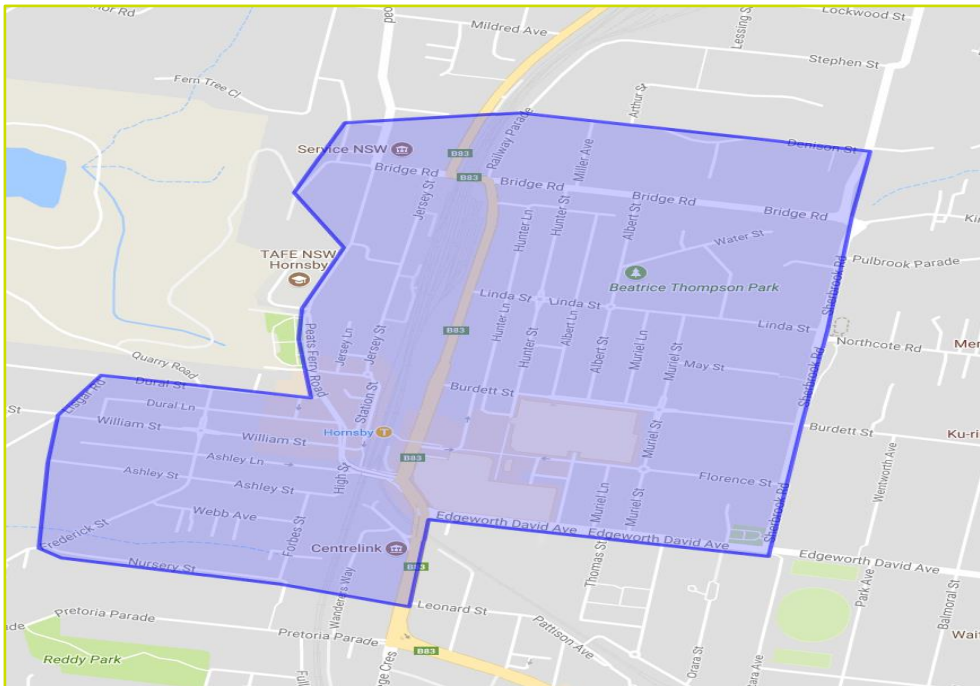


Figure 1.1: Hornsby Town Centre survey study area

### 1.2.1 PARKING SUPPLY

The supply survey identified 2420 parking bays on-street and 4629 parking bays off-street within the Hornsby Town Centre. A summary of the overall on-street and off-street parking supply in the Hornsby Town Centre is presented in Table 1-1 and Table 1-2.

Figure 1.2 and Figure 1.3 present the distribution of on-street and off-street parking types in pie chart format.

Table 1-1: On-street parking inventory in Hornsby Town Centre

Parking type	Parking bays	% of total
Time restricted parking	426	18%
Unrestricted parking	1870	77%
Parking for persons with a disability	8	0%
Taxi zone	13	1%
Loading zone	10	0%
Bus zone	12	0%
Others (ambulance, reserved etc.)	81	3%
<b>Total overall supply</b>	<b>2420</b>	<b>100%</b>

Table 1-2: Off-street parking inventory in Hornsby Town Centre

Parking type	Parking bays	% of total
Time restricted parking	345	7%
Unrestricted parking	3698	80%
Parking for persons with a disability	135	3%
Taxi zone	0	0%
Loading zone	13	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	438	9%
<b>Total overall supply</b>	<b>4629</b>	<b>100%</b>

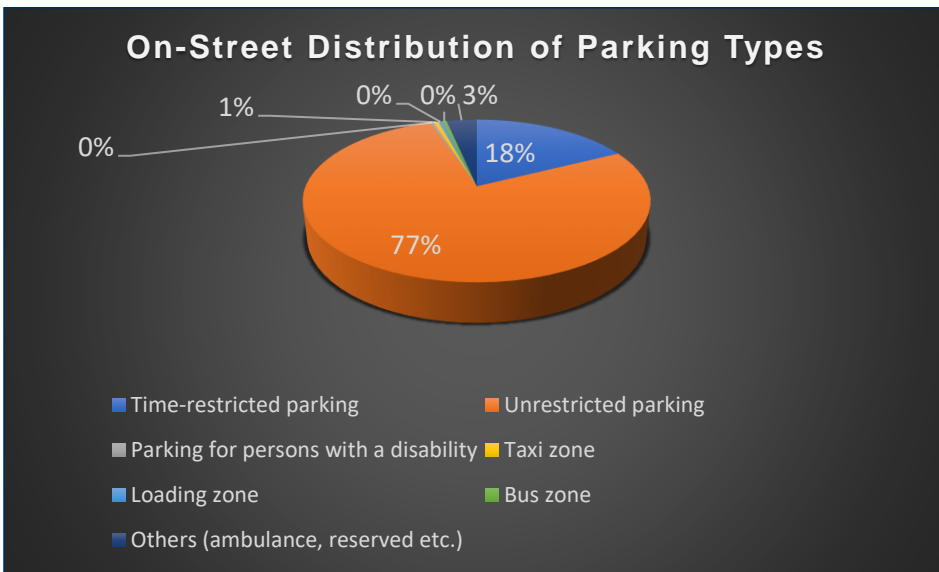


Figure 1.2: Distribution of on-street parking types in Hornsby Town Centre

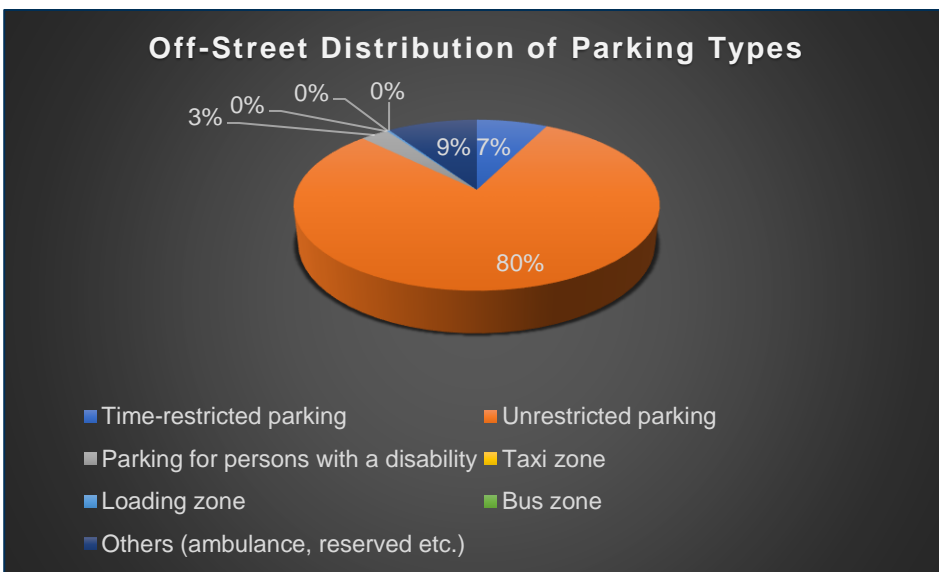


Figure 1.3: Distribution of off-street parking types in Hornsby Town Centre

Table 1-3 presents the breakdown of on-street and off-street parking supply while Figure 1.4 presents the percentage distribution for on-street and off-street parking.

Table 1-3: On-street and off-street parking supply within Hornsby Town Centre

Parking type	Parking bays	% of total
On-street		
Time restricted parking	550	8%
Unrestricted parking	1870	27%
Off-street		
Time restricted parking	931	13%
Unrestricted parking	3698	52%
<b>Total</b>	<b>7049</b>	<b>100%</b>

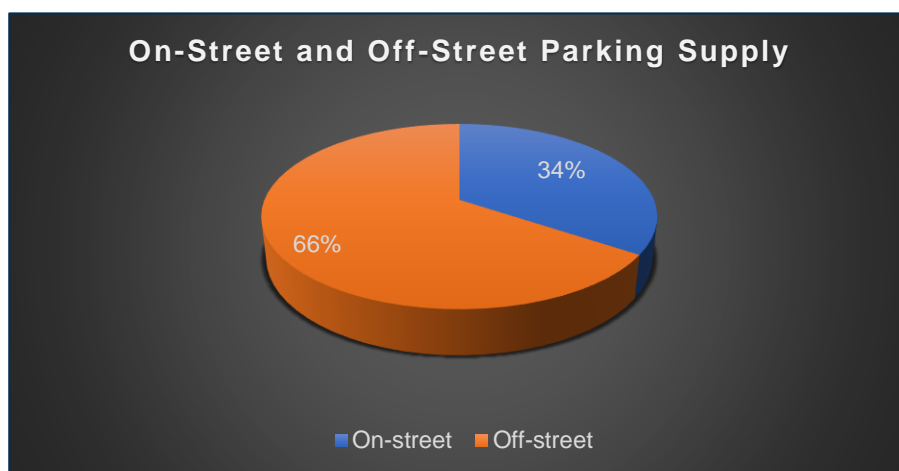


Figure 1.4: Distribution of on-street and off-street parking in Hornsby Town Centre

### 1.2.2 DEMAND

Table 1-4 presents the hourly parking occupancy observed at the Hornsby Town Centre precinct, while Figure 1.5, Figure 1.6 and Figure 1.7 present the on-street, off-street and overall hourly parking occupancy.

Table 1-4: Hornsby Town Centre precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
8:00	3080	4070	48%	63%
9:00	4671	4862	72%	76%
10:00	5605	5564	87%	87%
11:00	5798	5560	90%	87%
12:00	5670	5629	88%	88%
13:00	5720	5650	88%	88%
14:00	5754	5512	89%	86%
15:00	5723	5122	89%	80%
16:00	5742	4708	89%	73%
17:00	5167	4356	80%	68%
18:00	4445	3663	69%	57%

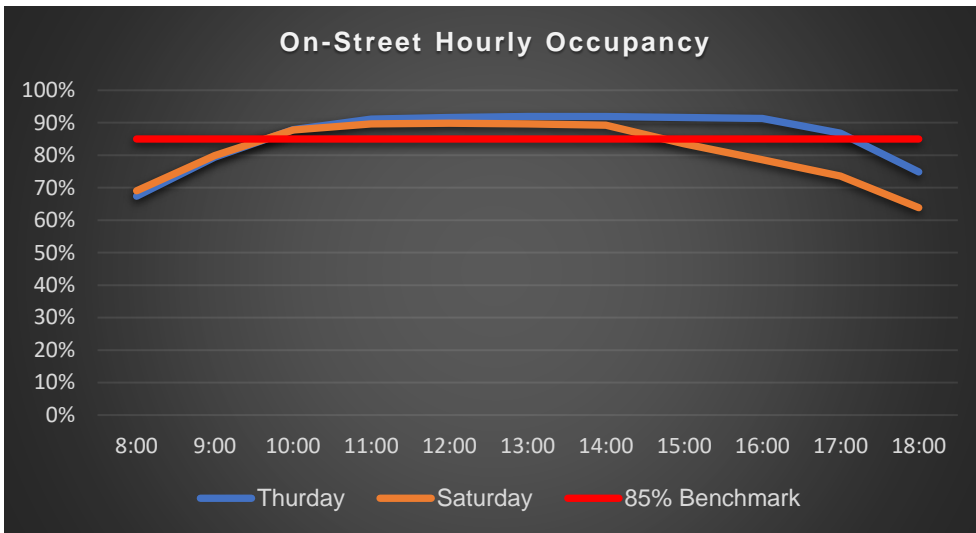


Figure 1.5: On-street hourly occupancy in Hornsby Town Centre

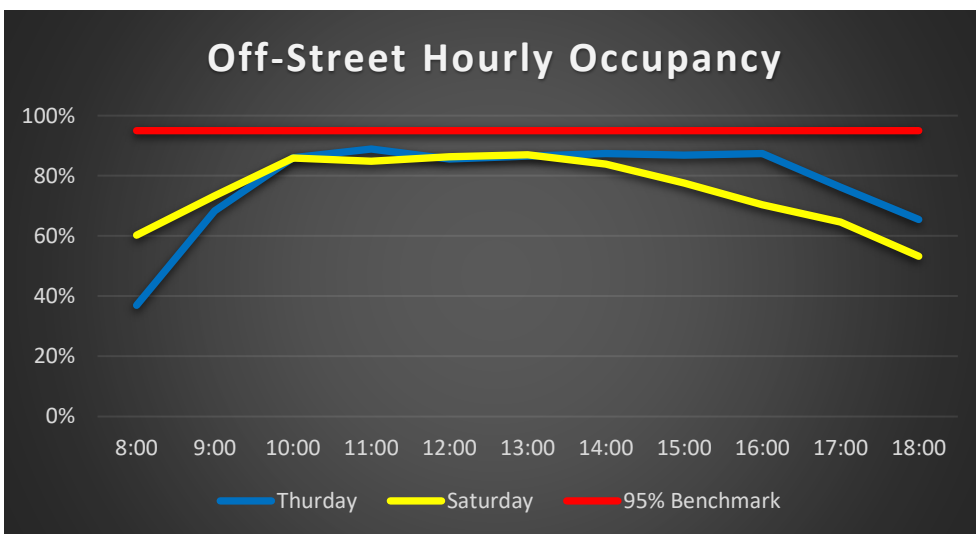


Figure 1.6: Off-street hourly occupancy in Hornsby Town Centre

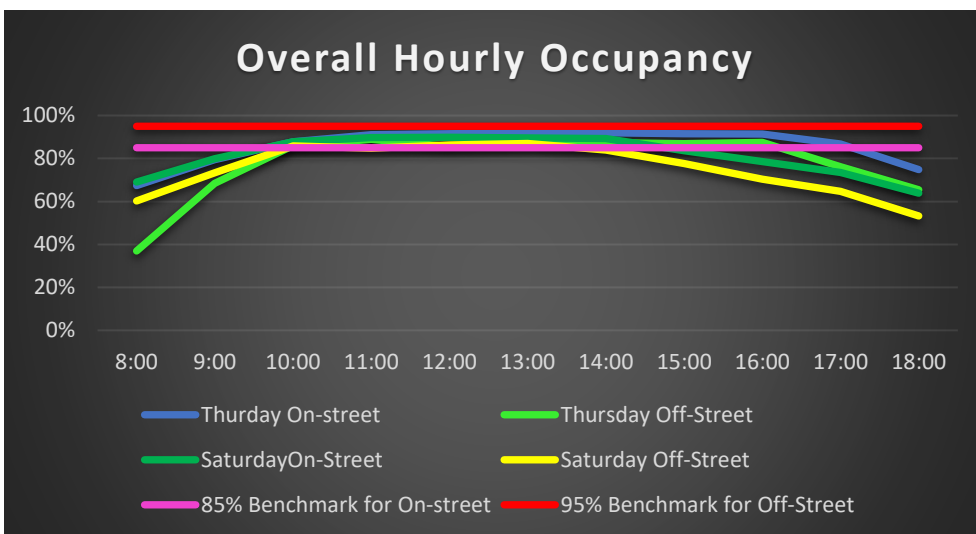


Figure 1.7: Overall Hornsby Town Centre parking occupancy

Table 1-5 and Table 1-6 present the on-street and off-street, average and peak occupancy for the Hornsby Town Centre.

Table 1-5: On-street parking available capacity and occupancy Hornsby Town Centre

	Thursday	Saturday
Available capacity	2269	2269
Average occupancy	86%	81%
Peak occupancy	92%	90%

Table 1-6: Off-street parking available capacity and occupancy Hornsby Town Centre

	Thursday	Saturday
Available capacity	4197	4157
Average occupancy	78%	75%
Peak occupancy	89%	87%

### 1.2.3 AVERAGE DURATION OF STAY

The average length of stay is the average duration a vehicle will stay parked in a particular bay per day. It can be used to determine how long a free parking period should be based on the average time a bona fide shopper will park in the car park. It is calculated as follows:

$$\text{Average Duration of stay} = \frac{\text{Allowable parking hours per day}}{\text{Turnover per bay}}$$

The rate at which spaces become available is important since it describes the number of opportunities different users will have to occupy a space. For example, a vehicle belonging to a shop employee could either occupy a parking space in front of that shop for a full 8 hours providing access for 1 person or it could turn over every 60 minutes and provide convenient access for 8 different customers.

### 1.2.4 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 1-7 and Figure 1.8 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-7: On-street duration of stay in Hornsby Town Centre

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
0-1hr	1711	30%	1821	30%
1-2hrs	1017	18%	1118	18%
2-3hrs	500	9%	842	14%
3-4hrs	527	9%	627	10%
4-5hrs	444	8%	528	9%
5-6hrs	402	7%	437	7%
6-7hrs	315	5%	289	5%
7-8hrs	253	4%	189	3%
8-9hrs	224	4%	104	2%
9-10hrs	177	3%	92	1%
10+ hrs	175	3%	106	2%
<b>Total</b>	<b>5745</b>		<b>6153</b>	



Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
Average turnover per bay	3.5		3.8	
Average duration of stay	4.2		3.6	

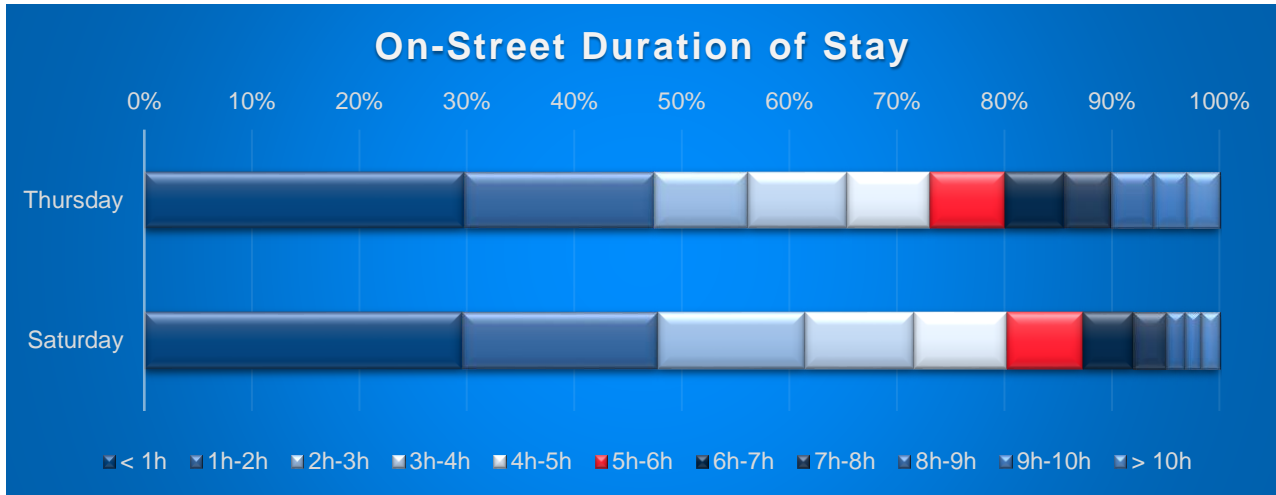


Figure 1.8: On-street duration of stay in Hornsby Town Centre

Table 1-8 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-8: Average turnover of on-street parking in Hornsby Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	6.9	6.9
Unrestricted	1.7	1.9

### Off-Street Duration of Stay and Turn Over

Table 1-9 and Figure 1.9 presents the off-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-9: Off-street duration of stay in Hornsby Town Centre

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
0-1hr	1814	16%	2645	21%
1-2hrs	2505	23%	3264	26%
2-3hrs	2277	21%	2772	22%
3-4hrs	1766	16%	1920	15%
4-5hrs	980	9%	934	7%
5-6hrs	547	5%	598	5%
6-7hrs	281	3%	240	2%
7-8hrs	215	2%	148	1%

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
8-9hrs	247	2%	56	0%
9-10hrs	125	1%	52	0%
10+ hrs	268	2%	36	0%
Total	11,025		12,665	
Average turnover per bay	2.4		2.9	
Average duration of stay	3.7		2.9	

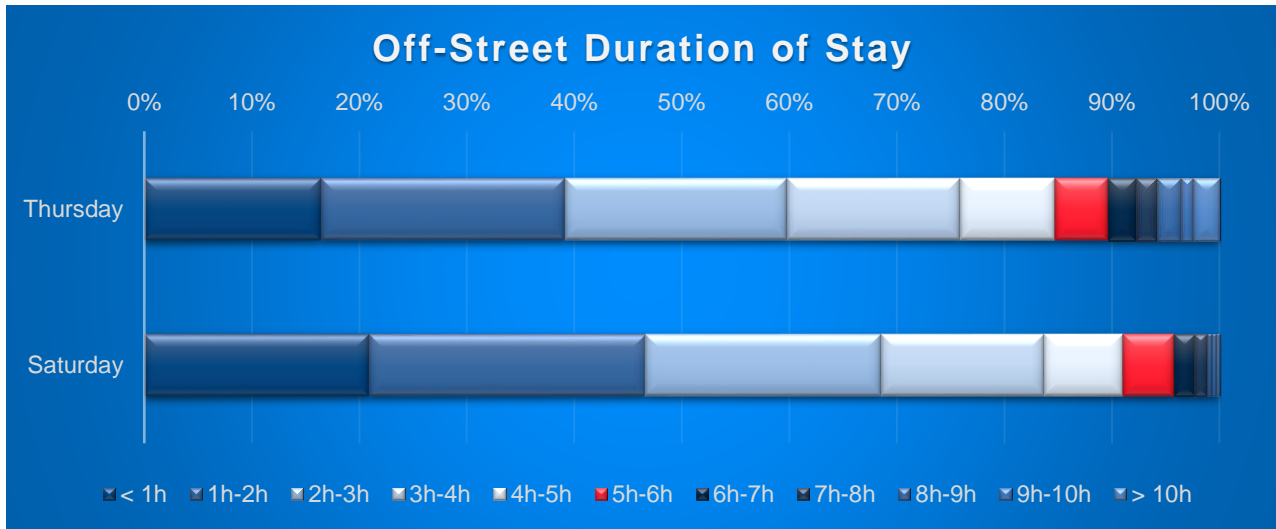


Figure 1.9: Off-street duration of stay in Hornsby Town Centre

Table 1-10 presents the off-street Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-10: Average turnover of off-street parking in Hornsby Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.5	4
Unrestricted	2.2	2.9

### 1.2.5 FINDINGS

The survey results for Hornsby Town Centre revealed the following:

- ***There are 7049 parking bays located within the study area. Of these, 21% are time restricted and 79% unrestricted.***
- ***66% of parking supply is on-street, while 34% is off-street.***
- ***Peak occupancy on-street is 92% on a Thursday between 12 pm and 3pm, and, 90% on a Saturday with peak demand occurring at 11am as visitation to the precinct increases.***
- ***Peak occupancy off-street is 89% on a Thursday at 11am and 87% on a Saturday with peak demand occurring at 1pm.***
- ***The average length of stay off-street is 3.6 hours on a Thursday which indicates a large proportion of parkers are commuters or people employed in the CBD and high usage rates of the free 3P parking at Westfield.***
- ***The restricted areas of on-street parking generate an average turnover of 6.9 cars during a typical weekday.***
- ***The unrestricted areas of on-street parking generate an average turnover of 1.7 cars during a typical weekday.***
- ***The average length of stay off-street on a Saturday is 2.7 hours which is typical for a CBD area during the weekend.***
- ***The following road segments yielded occupancy rates of higher than 85%:***
  - ***Peats Ferry Road from High Street to Coronation Street.***
  - ***Coronation Street.***
  - ***High Street.***
  - ***Hunter Street south of Burdett Street.***
  - ***Florence Street from Albert Street to Albert Lane southern side.***
  - ***Station Street in place of existing 1/4P and 1/2P parking spaces.***
  - ***Peats Ferry Road from Coronation Street to Jersey Lane.***
  - ***Jersey Street from Coronation Street to Jersey Lane.***
  - ***Dural Street from Peats Ferry Road to Frederick Street except for the current no parking zone.***
  - ***William Street from Peats Ferry Road to Frederick Street.***
  - ***Government Road except for existing P parking zone.***
  - ***Hunter Lane from Burdett Street to George Street.***
  - ***Hunter Street from Burdett Street to Linda Street.***
  - ***Hunter Street from Linda Street to Bridge Road western side.***
  - ***Florence Street from Albert Street to Muriel Street.***
  - ***Albert Street south of Florence Street eastern side.***

## 1.3 HORNSBY HOSPITAL PRECINCT

The study area for the Hornsby Hospital Precinct is presented in Figure 1.10.

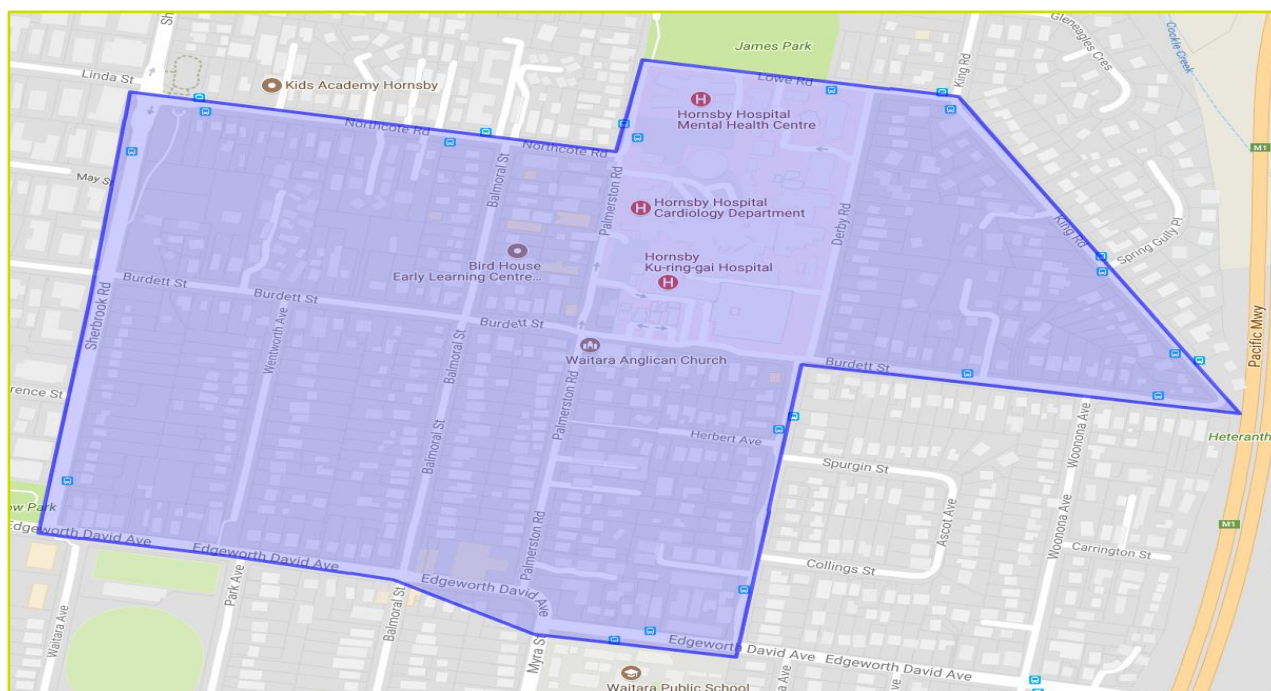


Figure 1.10: Hornsby Hospital Precinct survey study area

### 1.3.1 PARKING SUPPLY

The supply survey identified 993 parking bays on-street and 264 parking bays off-street within the Hornsby Hospital Precinct. A summary of the overall on-street and off-street parking supply in the Hornsby Hospital Precinct is presented in Table 1-11 and Table 1-12.

Figure 1.11 and Figure 1.12 present the distribution of on-street and off-street parking types in pie chart format.

Table 1-11: On-street parking inventory within Hornsby Hospital Precinct

Parking type	Parking bays	% of total
Time restricted parking	80	8%
Unrestricted parking	829	83%
Parking for persons with a disability	3	0%
Taxi zone	2	0%
Loading zone	2	0%
Bus zone	70	7%
Others (ambulance, reserved etc.)	7	1%
<b>Total overall supply</b>	<b>993</b>	<b>100%</b>

Table 1-12: Off-street parking inventory within Hornsby Hospital Precinct

Parking type	Parking bays	% of total
Time restricted parking	63	24%
Unrestricted parking	111	42%
Parking for persons with a disability	16	6%
Taxi zone	0	0%
Loading zone	11	4%
Bus zone	0	0%
Others (ambulance, reserved etc.)	63	24%
<b>Total overall supply</b>	<b>264</b>	<b>100%</b>

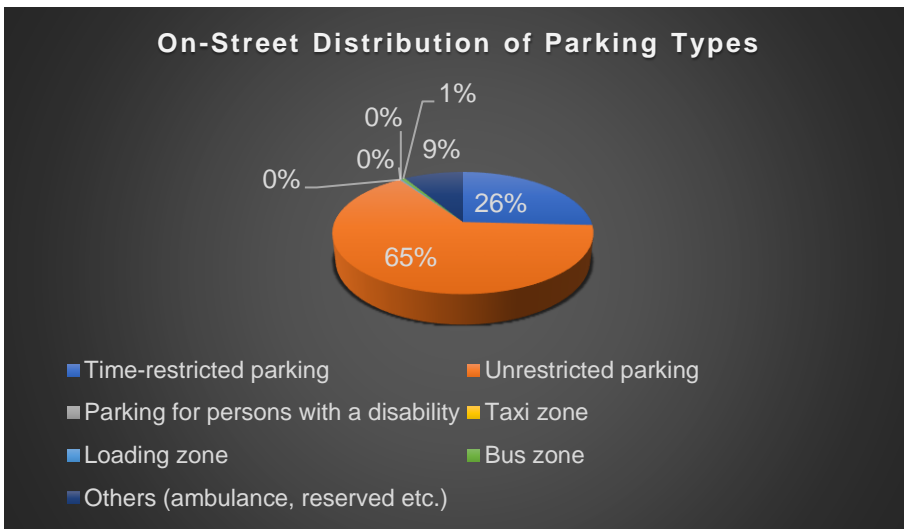


Figure 1.11: Distribution of on-street parking types in Hornsby Hospital Precinct

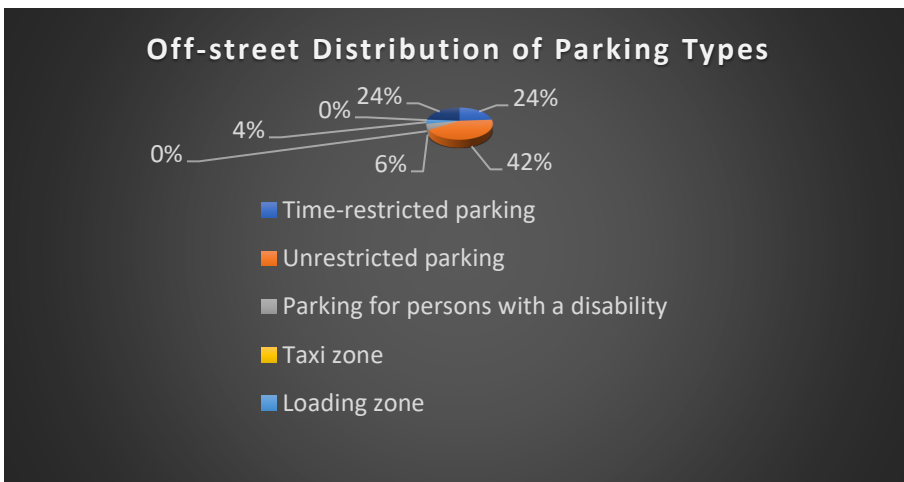


Figure 1.12: Distribution of off-street parking types in Hornsby Hospital Precinct

Table 1-13 presents the breakdown of on-street and off-street parking supply while Figure 1.13 presents the percentage distribution for on-street and off-street parking.

Table 1-13: On-street and off-street parking supply within Hornsby Hospital Precinct

Parking type	Parking bays	% of total
On-street		
Time restricted parking	80	7%
Unrestricted parking	829	77%
Off-street		
Time restricted parking	63	6%
Unrestricted parking	111	10%
<b>Total</b>	<b>1083</b>	<b>100%</b>



Figure 1.13: Distribution of on-street and off-street parking in Hornsby Hospital Precinct

### 1.3.2 DEMAND

Table 1-14 presents the hourly parking occupancy observed at the Hornsby Hospital Precinct, while Figure 1.14, Figure 1.15 and Figure 1.16 present the on-street, off-street and overall hourly parking occupancy.

Table 1-14: Hornsby Hospital precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
8:00	93	86	49%	45%
9:00	120	119	63%	63%
10:00	142	147	75%	77%
11:00	150	162	79%	85%
12:00	157	169	83%	89%
13:00	159	171	84%	90%
14:00	158	174	83%	92%
15:00	157	161	83%	85%
16:00	160	147	84%	77%
17:00	140	130	74%	68%
18:00	115	115	61%	61%

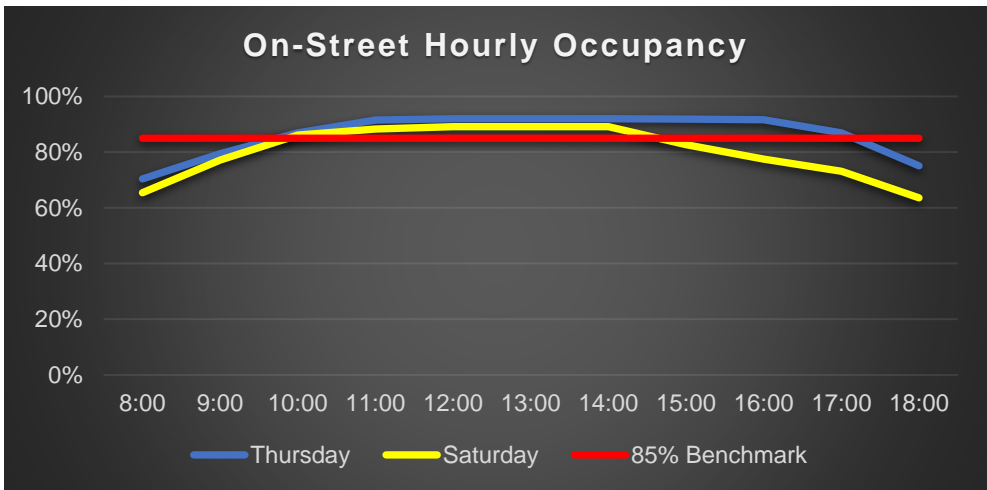


Figure 1.14: On-street hourly occupancy at Hornsby Hospital Precinct

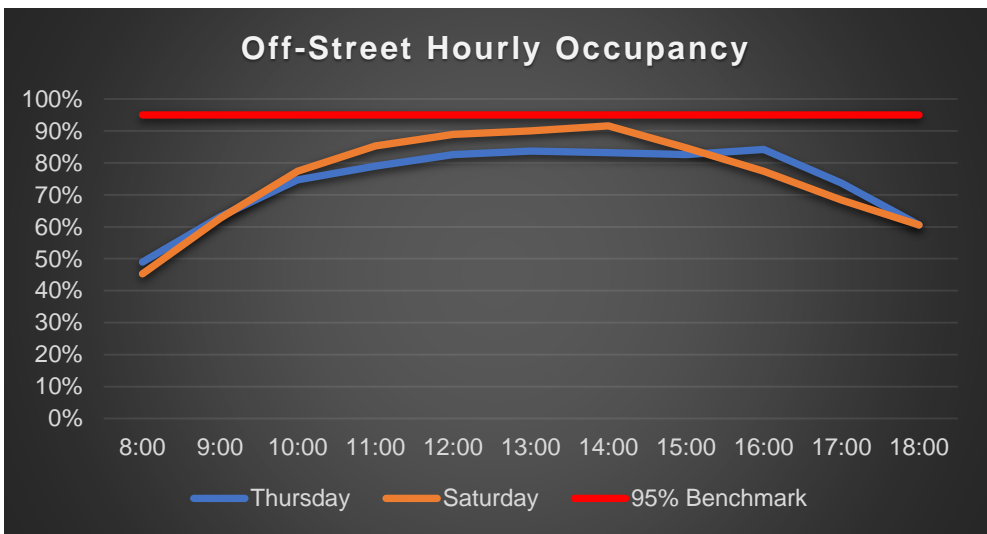


Figure 1.15: Off-street hourly occupancy at Hornsby Hospital Precinct

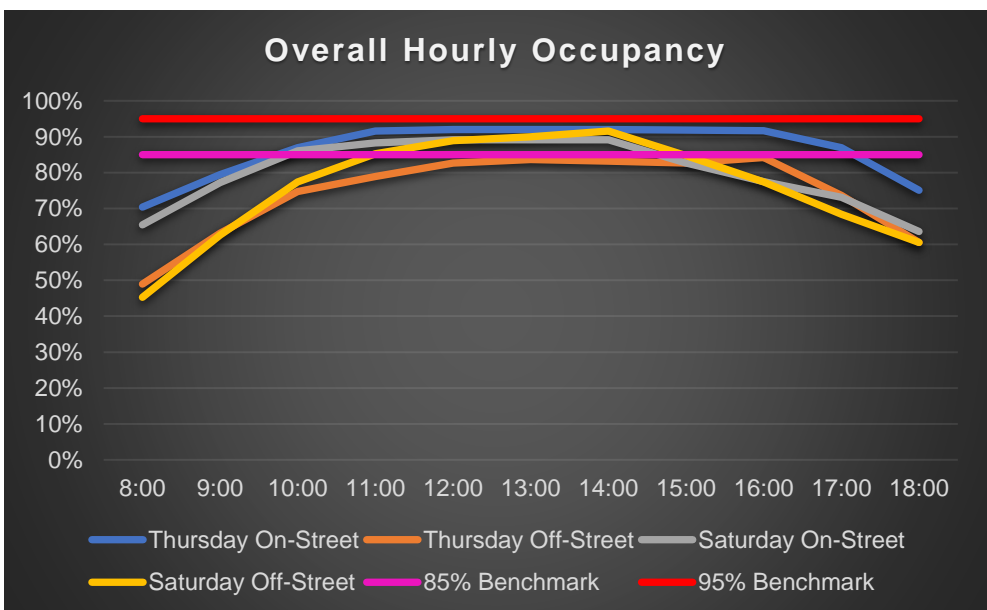


Figure 1.16: Overall Hornsby Hospital Precinct parking occupancy

Table 1-15 and Table 1-16 present the on-street and off-street, average and peak occupancy for the Hornsby Hospital Precinct.

Table 1-15: On-street parking capacity and occupancy in Hornsby Hospital Precinct

	Thursday	Saturday
Capacity	912	912
Average occupancy	86%	80%
Peak occupancy	92%	89%

Table 1-16: Off-street parking capacity and occupancy in Hornsby Hospital Precinct

	Thursday	Saturday
Capacity	190	190
Average occupancy	74%	76%
Peak occupancy	84%	92%

### 1.3.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 1-17 and Figure 1.17 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-17: On-street duration of stay in Hornsby Hospital Precinct

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
0-1hr	326	17%	330	17%
1-2hrs	289	15%	310	16%
2-3hrs	190	10%	298	15%
3-4hrs	215	11%	304	15%
4-5hrs	195	10%	242	12%
5-6hrs	173	9%	197	10%
6-7hrs	121	6%	147	7%
7-8hrs	100	5%	58	3%
8-9hrs	122	6%	47	2%
9-10hrs	78	4%	23	1%
10+ hrs	72	4%	40	2%
<b>Total</b>	<b>1881</b>		<b>1996</b>	
Average turnover per bay	2.5		2.6	
Average duration of stay	4.9		4.2	



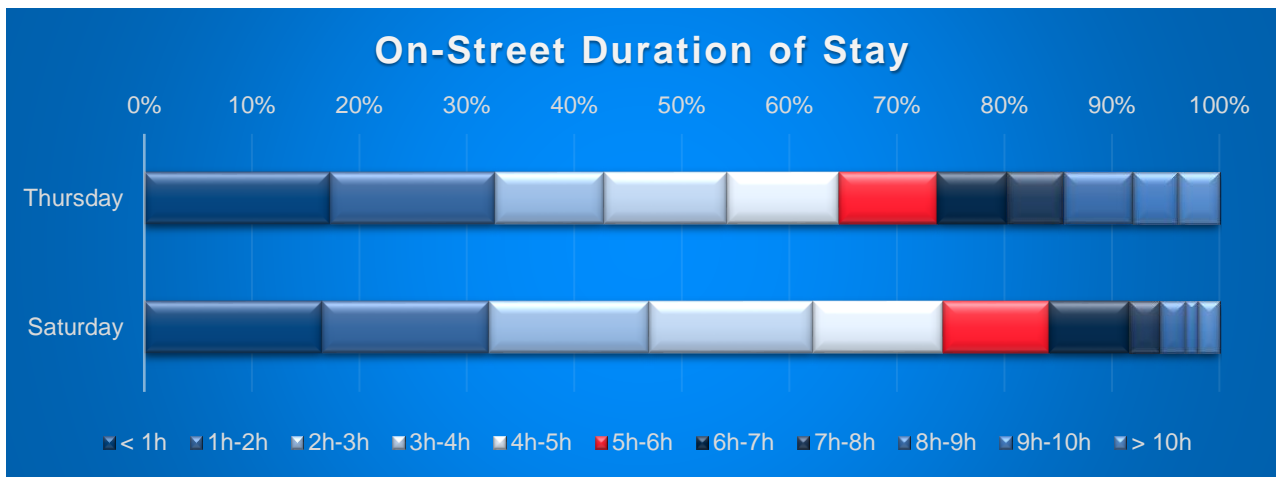


Figure 1.17: On-street duration of stay in Hornsby Hospital Precinct

Table 1-18 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-18: Average on-street parking turnover in Hornsby Hospital Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	5.9	5.3
Unrestricted	1.8	2

### Off-Street Duration of Stay and Turn Over

Table 1-19 and Figure 1.18 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-19: Off-street duration of stay in Hornsby Hospital Precinct

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
0-1hr	110	24%	157	29%
1-2hrs	92	20%	129	24%
2-3hrs	67	15%	98	18%
3-4hrs	61	14%	58	11%
4-5hrs	36	8%	30	6%
5-6hrs	26	6%	26	5%
6-7hrs	23	5%	18	3%
7-8hrs	13	3%	10	2%
8-9hrs	7	2%	5	1%
9-10hrs	6	1%	5	1%
10+ hrs	8	2%	3	1%
Total	449		539	
Average turnover per bay	3.5		4.2	
Average duration of stay	3.1		2.6	

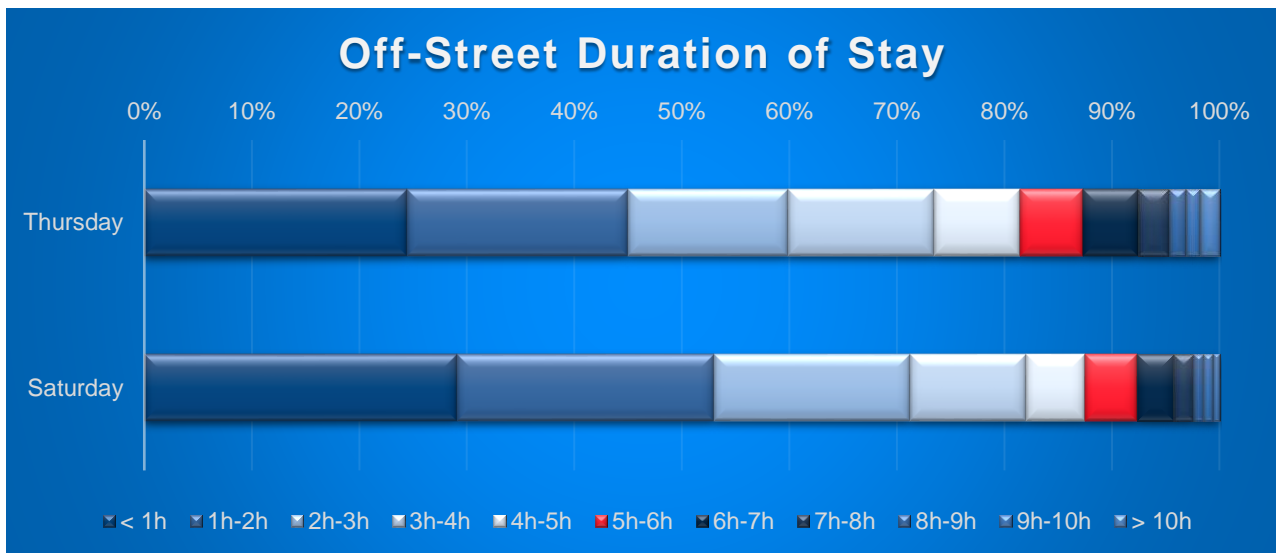


Figure 1.18: Off-street duration of stay in Hornsby Hospital Precinct

Table 1-20 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-20: Average on-street parking turnover in Hornsby Hospital Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	4.3	5.2
Unrestricted	1.7	2

### 1.3.4 FINDINGS

The survey results for Hornsby Hospital Precinct revealed the following:

- **There are 1,257 parking bays located within the study area. Of these, 25% are time restricted and 75% unrestricted.**
- **84% of parking supply is on-street, while 16% is off-street.**
- **Peak occupancy on-street is 92% on a Thursday between 11 am and 4pm, and, 90% on a Saturday with peak demand occurring between 12pm and 2pm.**
- **Peak occupancy off-street is 84% on a Thursday at 1pm and 92% on a Saturday with peak demand occurring at 2pm.**
- **The average length of stay on-street is 4.9 hours on a Thursday which indicates a large proportion of parkers are employees of the Hospital.**
- **The restricted areas of on-street parking generate an average turnover of 5.9 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1.8 cars during the survey on Thursday.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **Lowe Road from Palmerston Road to Derby Road.**
  - **Derby Road from Lowe Road to Burdett Street.**
  - **Burdett Street from Derby Road to Balmoral Street.**
  - **Palmerston Road from Burdett Street to Lowe Road.**

## 1.4 WAITARA STUDY AREA

The Waitara study area is presented in Figure 1.19.

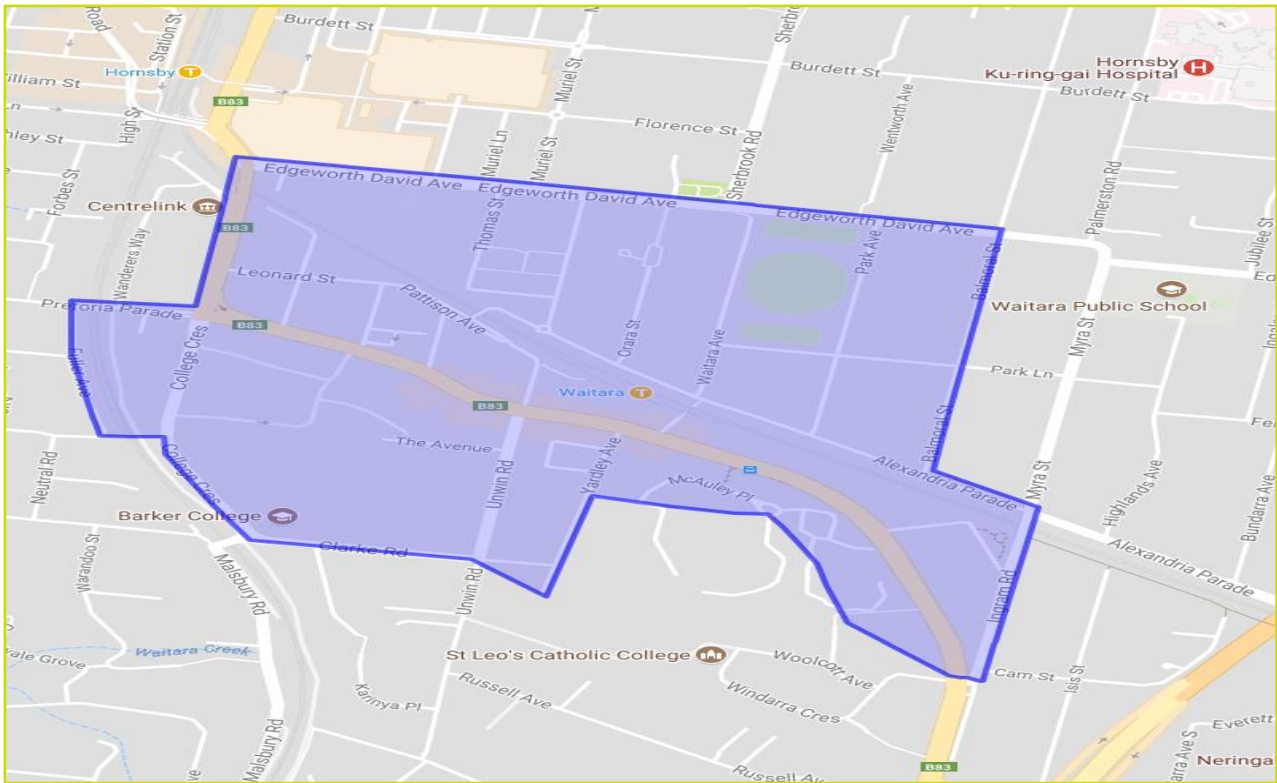


Figure 1.19: Waitara survey study area

### 1.4.1 PARKING SUPPLY

The supply survey identified 1648 parking bays on-street and 148 parking bays off-street within the Waitara study area. A summary of the overall on-street and off-street parking supply in the Waitara study area is presented in Table 1-21 and Table 1-22.

Figure 1.20 and Figure 1.21 present the distribution of on-street and off-street parking types in pie chart format.

Table 1-21: On-street parking inventory within Waitara study area

Parking type	Parking bays	% of total
Time-restricted parking	425	26%
Unrestricted parking	1064	65%
Parking for persons with a disability	2	0%
Taxi zone	0	0%
Loading zone	3	0%
Bus zone	10	1%
Others (ambulance, reserved etc.)	144	9%
<b>Total overall supply</b>	<b>1648</b>	<b>100%</b>

Table 1-22: Off-street parking inventory within Waitara study area

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	146	99%
Parking for persons with a disability	2	1%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	0	0%
<b>Total overall supply</b>	<b>148</b>	<b>100%</b>

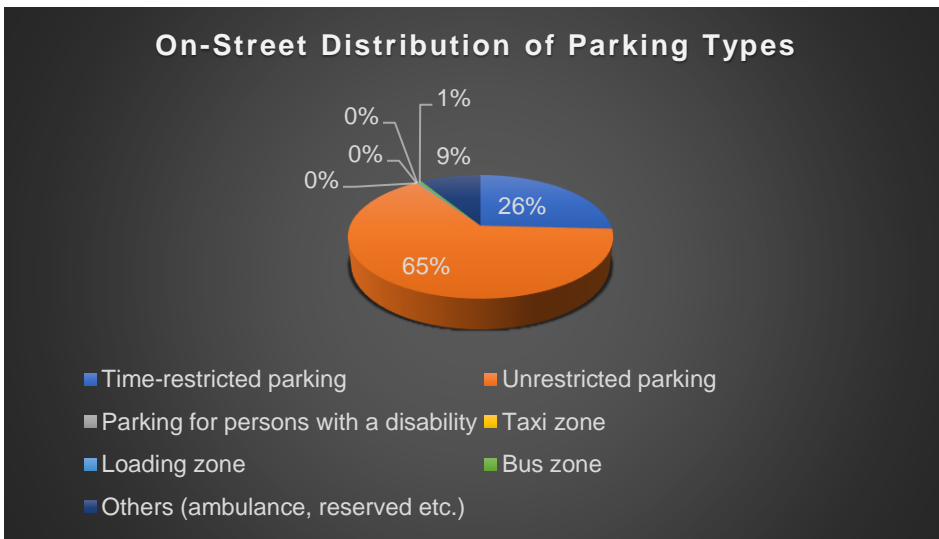


Figure 1.20: Distribution of on-street parking types in Waitara study area

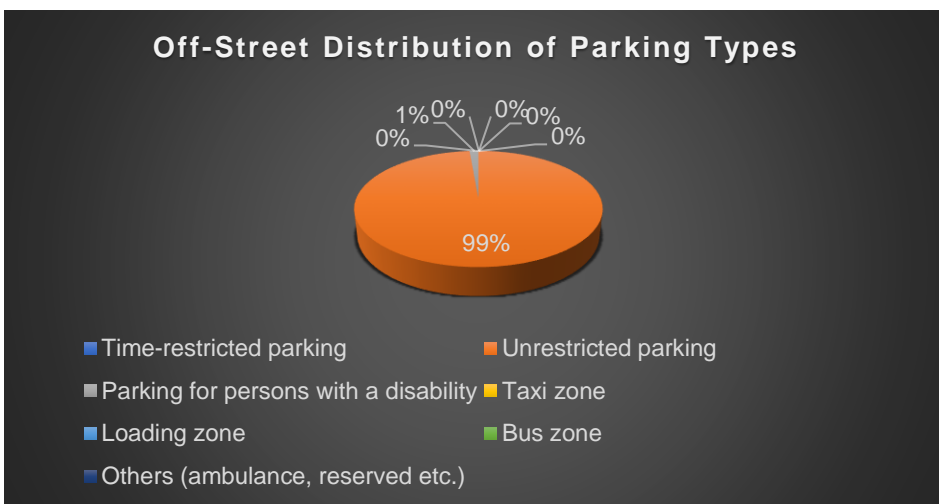


Figure 1.21: Distribution of off-street parking types in Waitara study area

Table 1-23 presents the breakdown of on-street and off-street parking supply while Figure 1.22 presents the percentage distribution for on-street and off-street parking.

Table 1-23: On-street and off-street parking supply within Waitara study area

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	584	33%
Unrestricted parking	1064	59%
<b>Off-street</b>		
Time restricted parking	2	0%
Unrestricted parking	146	8%
<b>Total</b>	<b>1796</b>	<b>100%</b>



Figure 1.22: Distribution of on-street and off-street parking in Waitara study area

### 1.4.2 DEMAND

Table 1-24 presents the hourly parking occupancy observed at the Waitara study area precinct, while Figure 1.23, Figure 1.24 and Figure 1.25 present the on-street, off-street and overall hourly parking occupancy. It is noted, overall on Thursday there are 1,565 bays and on Saturday there are 1,706 bays available for parking.

Table 1-24: Waitara study area precinct on and off-street hourly occupancy

Time	Occupied bays		% Occupied		Supply	
	Thursday	Saturday	Thursday	Saturday	Thursday	Saturday
8:00	1034	1152	66%	68%	1565	1706
9:00	1223	1337	78%	78%	1565	1706
10:00	1339	1489	86%	87%	1565	1706
11:00	1421	1508	91%	88%	1565	1706
12:00	1434	1515	92%	89%	1565	1706
13:00	1431	1524	91%	89%	1565	1706
14:00	1425	1523	91%	89%	1565	1706
15:00	1431	1426	91%	84%	1565	1706
16:00	1424	1322	91%	77%	1565	1706
17:00	1345	1224	86%	72%	1565	1706
18:00	1178	1091	75%	64%	1565	1706

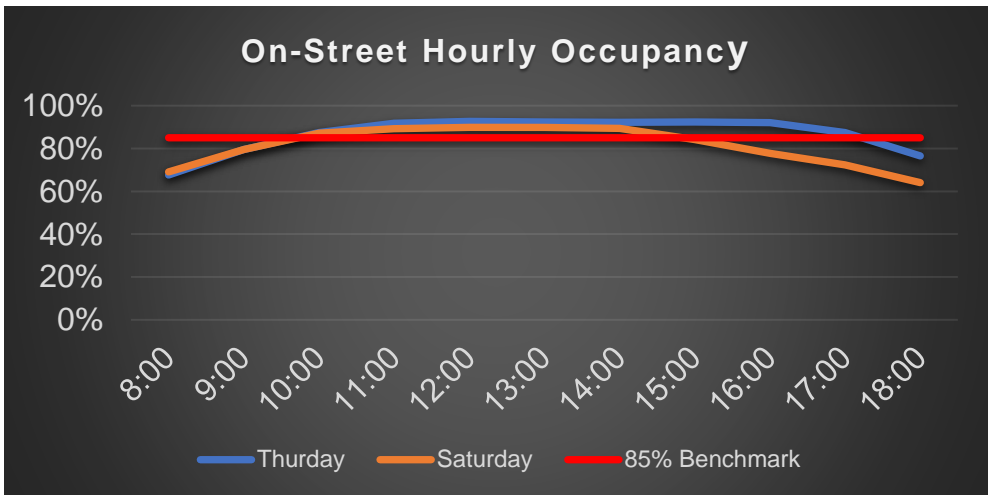


Figure 1.23: On-street hourly occupancy at Waitara study area

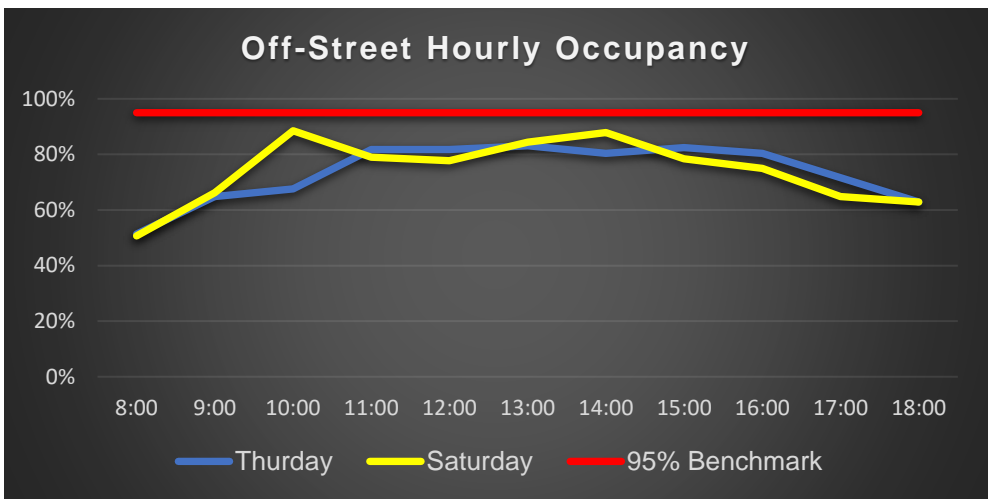


Figure 1.24: On-street hourly occupancy at Waitara study area

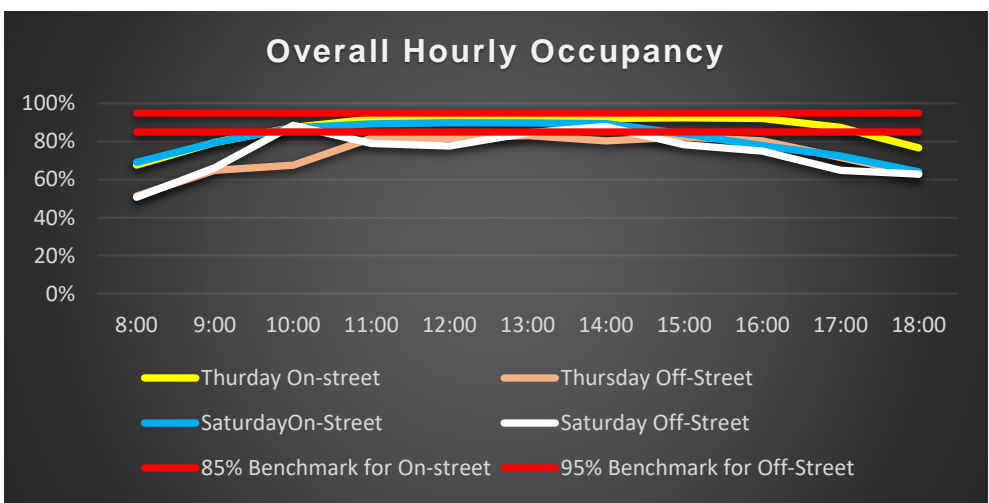


Figure 1.25: Overall Waitara study area parking occupancy

Table 1-25 and Table 1-26 present the on-street and off-street, average and peak occupancy for the Hornsby Town Centre.

Table 1-25: On-street parking available capacity and occupancy at Waitara study area

	Thursday	Saturday
Available capacity	1417	1558
Average occupancy	87%	81%
Peak occupancy	93%	90%

Table 1-26: Off-street available parking capacity and occupancy at Waitara study area

	Thursday	Saturday
Available capacity	148	148
Average occupancy	73%	74%
Peak occupancy	83%	89%

### 1.4.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 1-27 and Figure 1.26 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-27: On-street duration of stay at Waitara study area

Time	Thursday		Saturday	
	Vehicles	% of total vehicles	Vehicles	% of total vehicles
0-1hr	1030	27%	1240	27%
1-2hrs	731	19%	942	21%
2-3hrs	402	11%	682	15%
3-4hrs	423	11%	513	11%
4-5hrs	309	8%	343	8%
5-6hrs	242	6%	300	7%
6-7hrs	190	5%	190	4%
7-8hrs	144	4%	122	3%
8-9hrs	134	4%	70	2%
9-10hrs	89	2%	81	2%
10+ hrs	114	3%	82	2%
Total	<b>3808</b>		<b>4565</b>	
Average turnover per bay	3.2		3.3	
Average duration of stay	4.4		3.8	

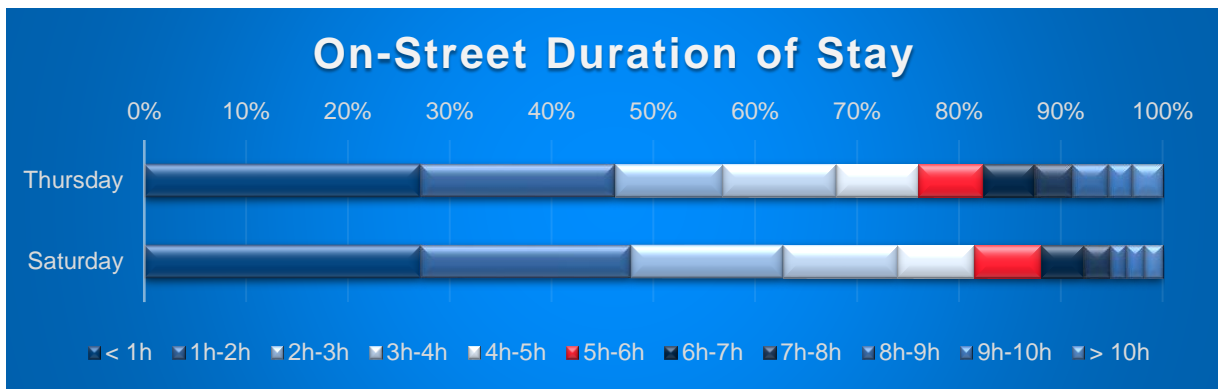


Figure 1.26: On-street duration of stay at Waitara study area

Table 1-28 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-28: Average on-street turnover at Waitara study area

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	5.6	5.2
Unrestricted	1.8	1.9

#### Off-Street Duration of Stay and Turn Over

Table 1-29 and Figure 1.27 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-29: Off-street duration of stay at Waitara study area

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	42	16%	79	24%
1-2hrs	44	17%	82	24%
2-3hrs	57	22%	61	18%
3-4hrs	26	10%	40	12%
4-5hrs	5	2%	13	4%
5-6hrs	9	4%	9	3%
6-7hrs	2	1%	4	1%
7-8hrs	16	6%	4	1%
8-9hrs	4	2%	12	4%
9-10hrs	16	6%	18	5%
10+ hrs	34	13%	14	4%
Total	255		336	
Average turnover per bay	1.8		2.5	
Average duration of stay	4.7		4.0	



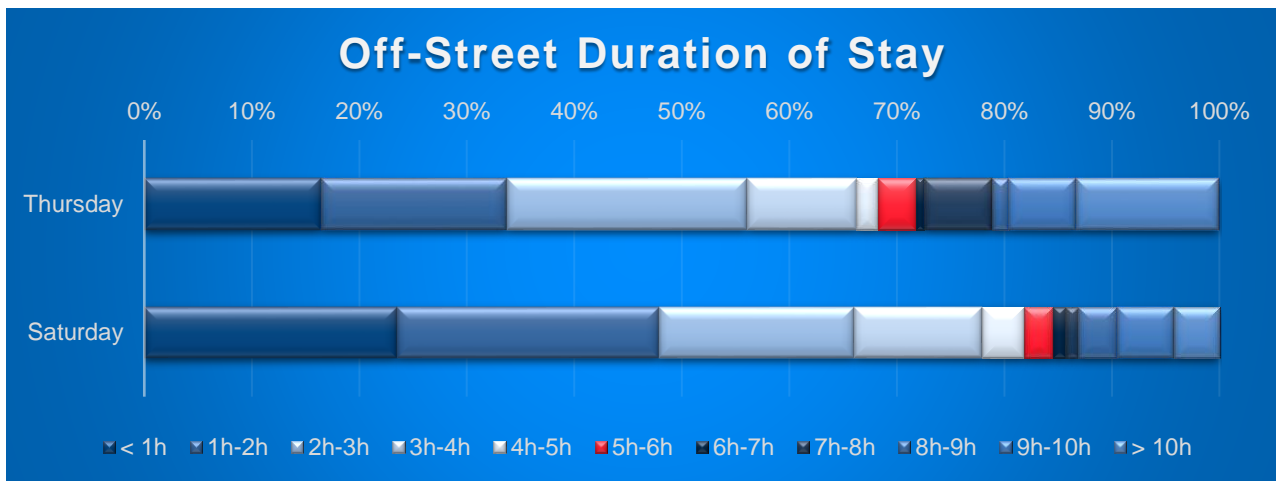


Figure 1.27: Off-street duration of stay at Waitara study area

Table 1-30 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-30: Average off-street turnover at Waitara study area

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.0	3.0
Unrestricted	1.7	2.3

#### 1.4.4 FINDINGS

The survey results for Hornsby Hospital Precinct revealed the following:

- **There are 1,796 parking bays located within the study area. Of these, 33% are time restricted and 67% unrestricted.**
- **92% of parking supply is on-street, while 8% is off-street.**
- **Peak occupancy on-street is 92% on a Thursday at 12 pm, and, 90% on a Saturday with peak demand occurring at 12pm as visitation to the precinct increases.**
- **Peak occupancy off-street is 83% on a Thursday at 1pm and 89% on a Saturday with peak demand occurring at 10am.**
- **The restricted areas of on-street parking generate an average turnover of 5.6 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1.8 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 3.8 hours which indicates long-stay resident parking in the area.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **Pacific Highway northern side from Carden Avenue to College Crescent.**
  - **Pacific Highway southern side from Unwin Road to College Crescent.**
  - **Waitara Avenue from Pacific Highway to end.**
  - **Waitara Avenue from Alexandria Avenue to Park Lane.**
  - **Romsey Street from Pacific Highway to Pattison Avenue.**
  - **James Lane from Pacific Highway to Pattison Avenue.**
  - **James Street from Pacific Highway to Leonard Street.**
  - **Hornsby Street from Pacific Highway to Leonard Street.**
  - **Leonard Street from Pacific Highway to Hornsby Street.**
  - **Alexandria Parade northern side from Romsey Street to Waitara Avenue.**
  - **Waitara Avenue from Park Lane to end.**
  - **Pattison Avenue.**
  - **Hornsby Street from Leonard Street to the end.**
  - **Leonard Street from Hornsby Street to Pattison Avenue.**

## 1.5 BEROWRA TOWN CENTRE PRECINCT

The study area for the Berowra Town Centre Precinct is presented in Figure 1.28.

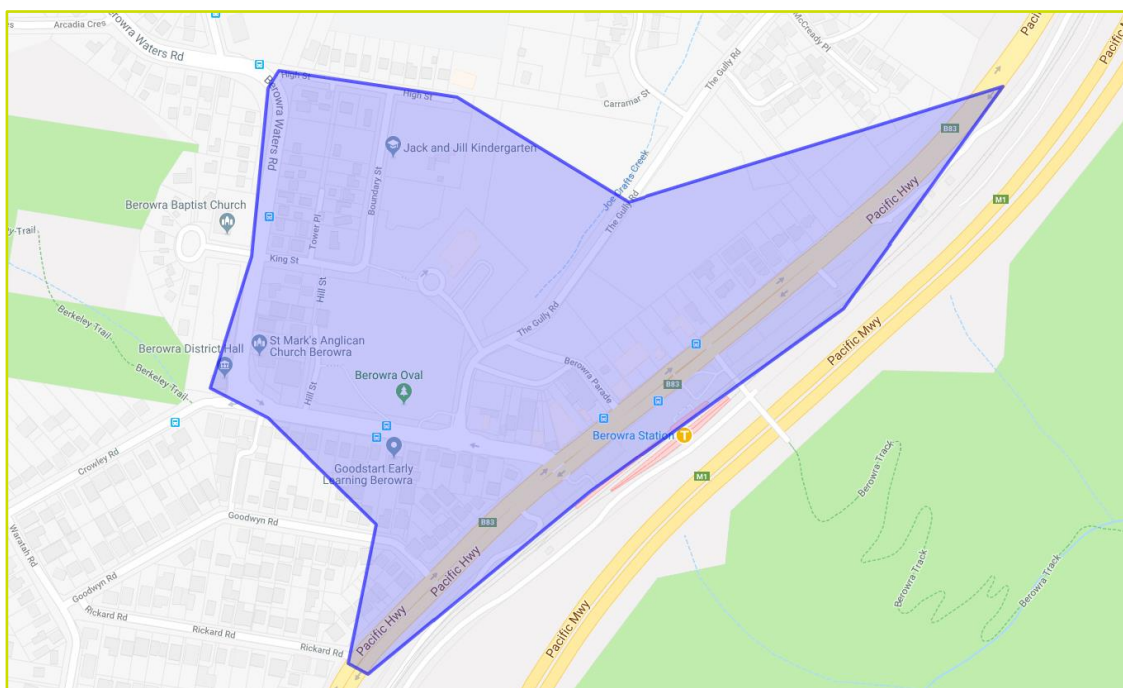


Figure 1.28: Berowra Precinct survey study area

### 1.5.1 PARKING SUPPLY

The supply survey identified 840 parking bays on-street and 704 parking bays off-street within the Berowra Precinct. A summary of the overall on-street and off-street parking supply in the Berowra Precinct is presented in Table 1-31 and Table 1-32.

Figure 1.37 and Figure 1.30 present the distribution of on-street and off-street parking types in pie chart format.

Table 1-31: On-street parking inventory within the Berowra Precinct

Parking type	Parking bays	% of total
Time-restricted parking	82	10%
Unrestricted parking	502	60%
Parking for persons with a disability	4	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	28	3%
Others (ambulance, reserved etc.)	224	27%
<b>Total overall supply</b>	<b>840</b>	<b>100%</b>

Table 1-32: Off-street parking inventory within the Berowra Precinct

Parking type	Parking bays	% of total
Time-restricted parking	125	18%
Unrestricted parking	501	71%
Parking for persons with a disability	13	2%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	65	9%
Total overall supply	<b>704</b>	<b>100%</b>

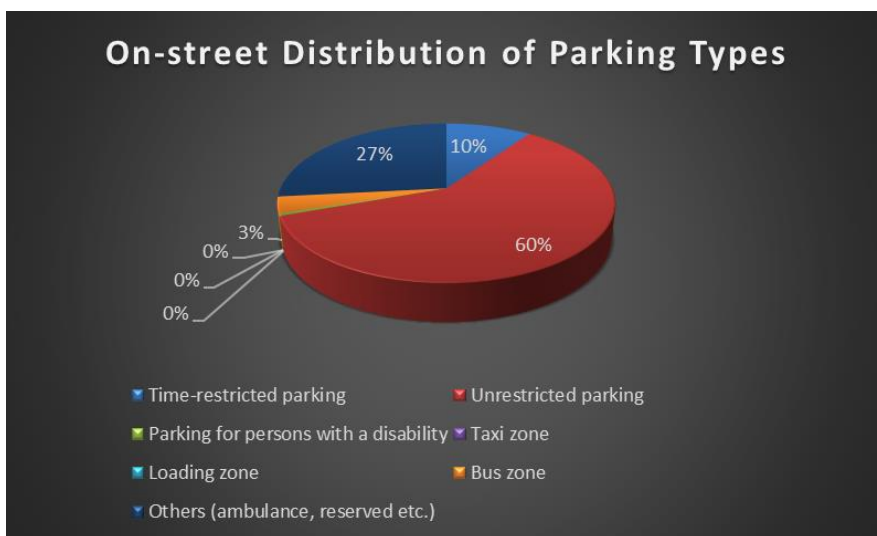


Figure 1.29: Distribution of on-street parking types in the Berowra Precinct

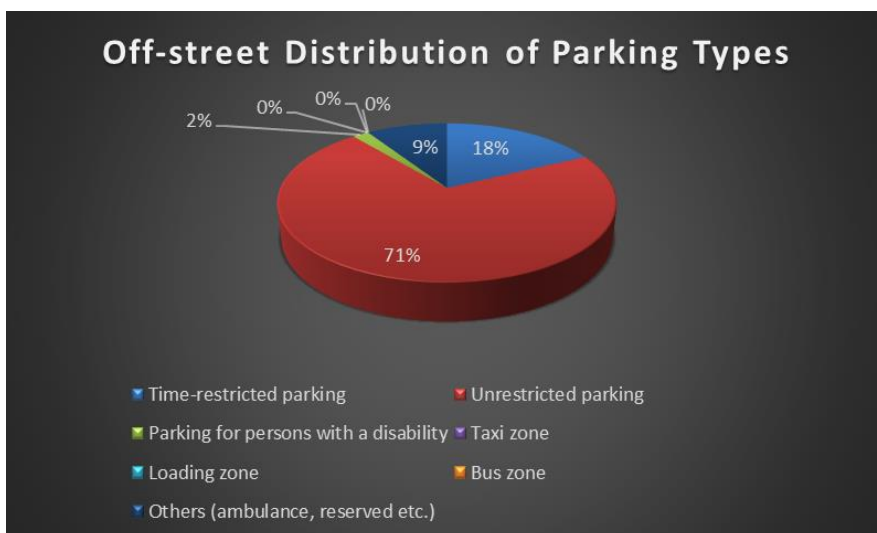


Figure 1.30: Distribution of off-street parking types in the Berowra Precinct

Table 1-23 presents the breakdown of on-street and off-street parking supply while Figure 1.31 presents the percentage distribution for on-street and off-street parking.

Table 1-33: On-street and off-street parking supply within the Berowra Precinct

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	82	7%
Unrestricted parking	502	41%
<b>Off-street</b>		
Time restricted parking	125	10%
Unrestricted parking	501	41%
<b>Total</b>	<b>1210</b>	<b>100%</b>



Figure 1.31: Distribution of on-street and off-street parking in the Berowra Precinct

### 1.5.2 DEMAND

Figure 1.34 presents the hourly parking occupancy observed at the Berowra Precinct, while Figure 1.32, Figure 1.33 and Figure 1.34 present the on-street, off-street and overall hourly parking occupancy. It is noted, overall on Thursday there are 980 bays and on Saturday there are 990 bays available for parking.

Table 1-34: Berowra Precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
8:00	641	167	65%	17%
9:00	635	172	65%	17%
10:00	636	167	65%	17%
11:00	640	184	65%	19%
12:00	649	194	66%	20%
13:00	646	193	66%	19%
14:00	641	194	65%	20%
15:00	628	192	64%	19%
16:00	590	200	60%	20%
17:00	481	198	49%	20%
18:00	386	179	39%	18%

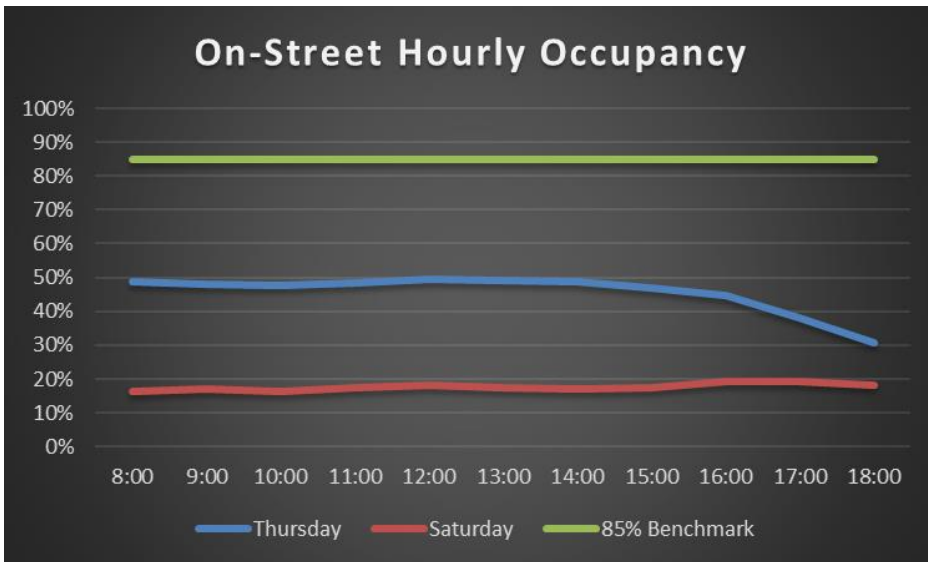


Figure 1.32: On-street hourly occupancy in the Berowra Precinct

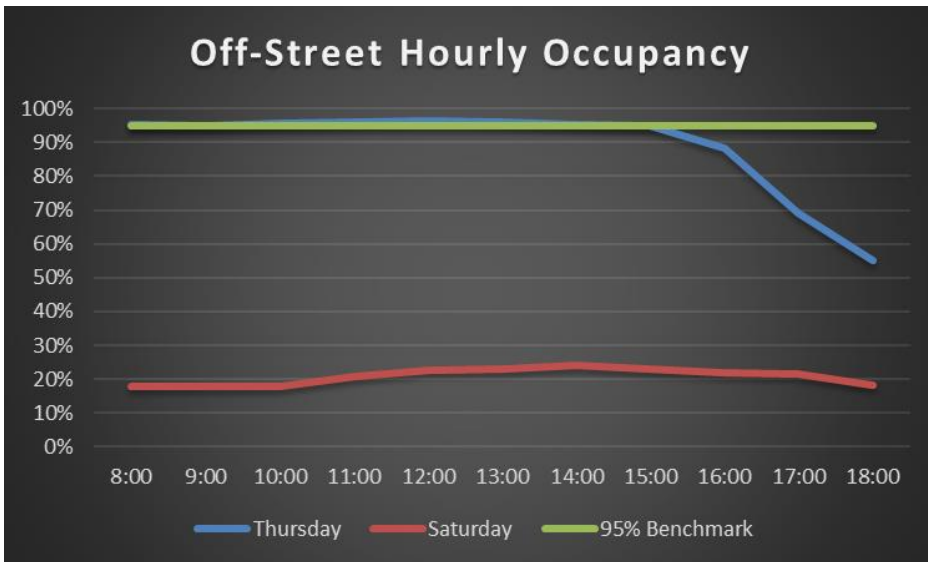


Figure 1.33: Off-street hourly occupancy in the Berowra Precinct

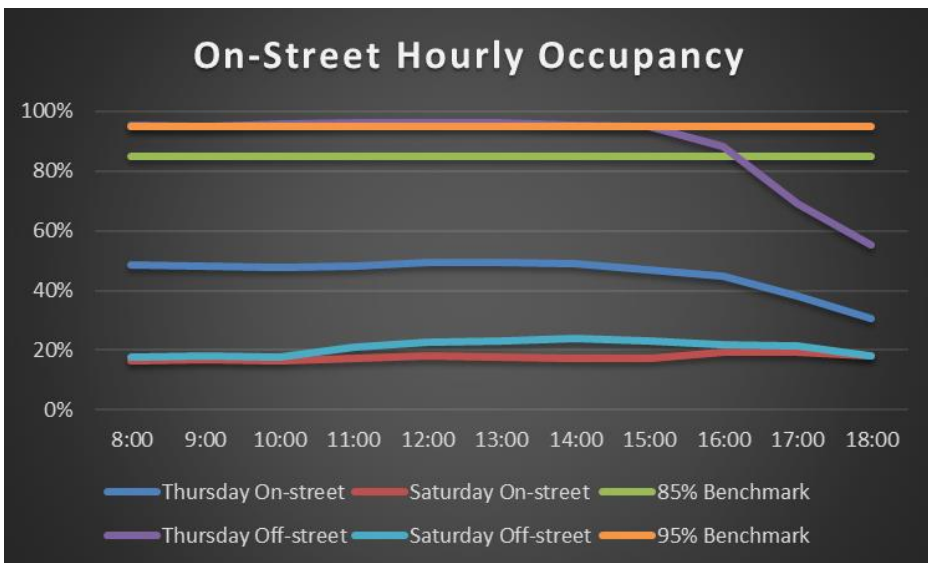


Figure 1.34: Overall Berowra Precinct parking occupancy

Table 1-35 and Table 1-36 present the on-street and off-street, average and peak occupancy for the Berowra Precinct.

*Table 1-35: On-street parking capacity and occupancy in the Berowra Precinct*

	Thursday	Saturday
Capacity	630	640
Average occupancy	46%	18%
Peak occupancy	50%	19%

*Table 1-36: Off-street parking capacity and occupancy in the Berowra Precinct*

	Thursday	Saturday
Capacity	350	350
Average occupancy	89%	21%
Peak occupancy	96%	24%

### 1.5.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 1-37 and Figure 1.35 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

*Table 1-37: On-street duration of stay in the Berowra Precinct*

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	139	19%	54	16%
1-2hrs	109	15%	74	22%
2-3hrs	80	11%	65	19%
3-4hrs	98	13%	42	12%
4-5hrs	75	10%	32	9%
5-6hrs	63	9%	32	9%
6-7hrs	48	7%	12	4%
7-8hrs	33	5%	11	3%
8-9hrs	54	7%	7	2%
9-10hrs	22	3%	6	2%
10+ hrs	10	1%	7	2%
<b>Total</b>	<b>731</b>		<b>342</b>	
Average turnover per bay	1.2		0.7	
Average duration of stay	2.1		1.2	

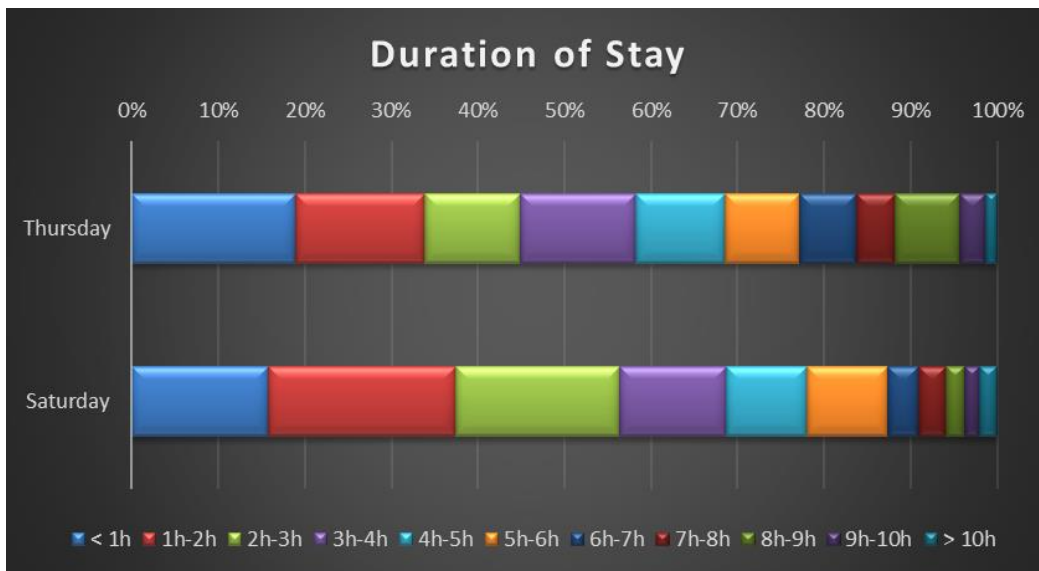


Figure 1.35: On-street duration of stay in the Berowra Precinct

Table 1-38 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-38: Average on-street turnover in the Berowra Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.4	1.4
Unrestricted	0.9	0.4

### Off-Street Duration of Stay and Turn Over

Table 1-39 and Table 1-36 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 1-39: Off-street duration of stay in the Berowra Precinct

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	25	5%	19	10%
1-2hrs	25	5%	22	12%
2-3hrs	53	11%	24	13%
3-4hrs	26	6%	33	18%
4-5hrs	38	8%	28	15%
5-6hrs	25	5%	25	14%
6-7hrs	8	2%	20	11%
7-8hrs	32	7%	3	2%
8-9hrs	72	15%	3	2%
9-10hrs	45	10%	3	2%
10+ hrs	121	26%	2	1%
Total	470		336	
Average turnover per bay	1.4		0.5	
Average duration of stay	6		0.8	

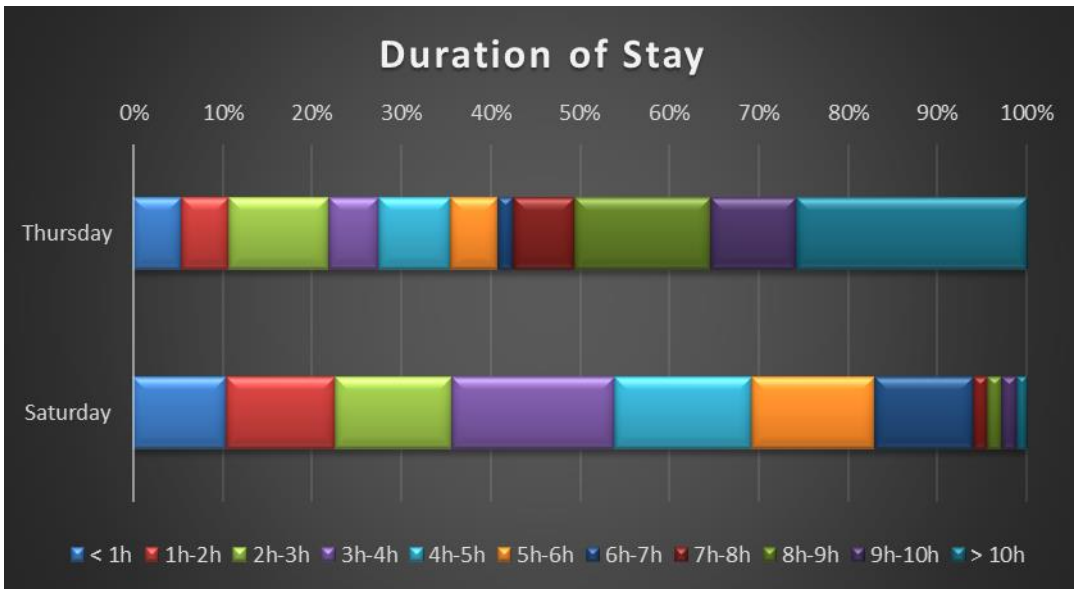


Figure 1.36: Off-street duration of stay in the Berowra Precinct

Table 1-40 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 1-40: Average off-street turnover in the Berowra Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	N/A	N/A
Unrestricted	1.5	2.0

### 1.5.4 FINDINGS

The survey results for the Berowra Precinct revealed the following:

- **There are 1,210 time-restricted and unrestricted parking bays located within the study area. Of these, 17% are time restricted and 83% unrestricted.**
- **48% of parking supply is on-street, while 52% is off-street.**
- **Peak occupancy on-street is 50% on a Thursday at 12 pm, and, 19% on a Saturday with peak demand occurring at 4pm and 5pm as visitation to the precinct increases.**
- **Peak occupancy off-street is 96% on a Thursday from 9am to 1pm and 24% on a Saturday with peak demand occurring at 2pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 2.4 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 0.9 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 1.2 hours.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - Resident Private Car Park
  - Bay Road Car Park.

### 1.6 NON-COMPLIANCE

The surveys revealed non-compliance (parking overstay) in time restricted parking areas. Table 1-41 presents the percentage of non-compliance for each time restriction and references corresponding peak occupancy in both on-street and off-street parking.



Table 1-41: Non-compliance in time restricted parking areas

	Time restriction	Non-compliance	Peak occupancy
On-street	1P	24%	95%
	2P	23%	93%
	3P	25%	93%
	4P	24%	94%
Off-street	3P	45%	90%

**On average, approximately 25% of all parkers using the time restricted parking are non-compliant. The off-street parking areas show non-compliance is approaching 50% of all parkers. More efficient enforcement and subsequent compliance will have a positive effect on peak occupancy and availability of parking.**

### 1.7 TRIP ORIGIN

The data collected from the utilization surveys was also used to determine trip origin of parkers within the three study precincts. An agreement was reached between Council and Roads and Maritime Services (RMS) where in RMS would provide the post code of each vehicle license plate number recorded during the utilisation surveys.

The results are presented as Figure 1.37 in heat map format with those drivers originating from the Hornsby LGA highlighted in red and those from surrounding LGAs' highlighted in blue. The higher the volume of drivers emanating from a particular trip destination, the darker the shade of colour.

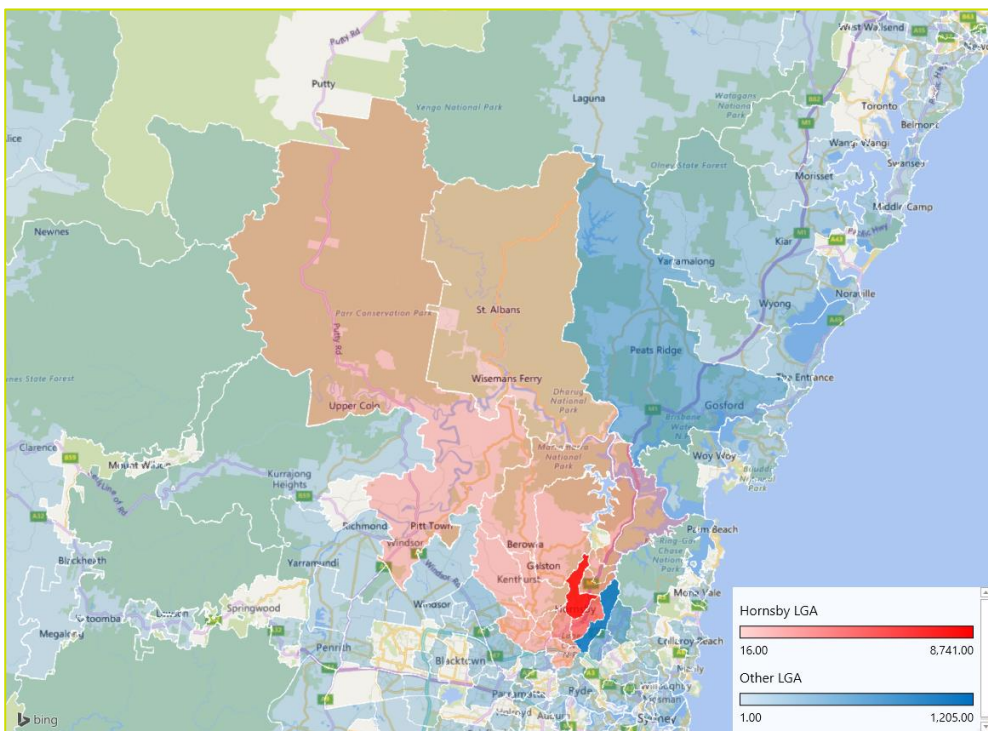


Figure 1.37: Trip origin survey results heat map

The survey results revealed 73.8% of parkers' trip origins were located within the Hornsby LGA with 26.2% in other surrounding LGA's'. The vast majority of parkers from surrounding LGA's utilise the off-street commuter car park.

# **STAGE 2**

**BROOKLYN ACTIVITY CENTRE**

**BEROWRA WATERS ACTIVITY CENTRE**

**ASQUITH TOWN CENTRE**

**BEECROFT TOWN CENTRE**

**CHELTENHAM TOWN CENTRE**

**PENNANT HILLS TOWN CENTRE**

**NORMANHURST TOWN CENTRE**

**THORNLEIGH TOWN CENTRE**

**CHERRYBROOK METRO PRECINCT**

**CHERRYBROOK TOWN CENTRE**

**FAGAN PARK**

**GALSTON VILLAGE PRECINCT**

**SALISBURY RD & LEIGHTON PLACE INDUSTRIAL  
PRECINCT**

## 2 STAGE 2 PARKING INVENTORY AND UTILISATION SURVEY RESULTS

### 2.1 BROOKLYN

The study area for the Brooklyn Activity Centre is presented in Figure 2.1.

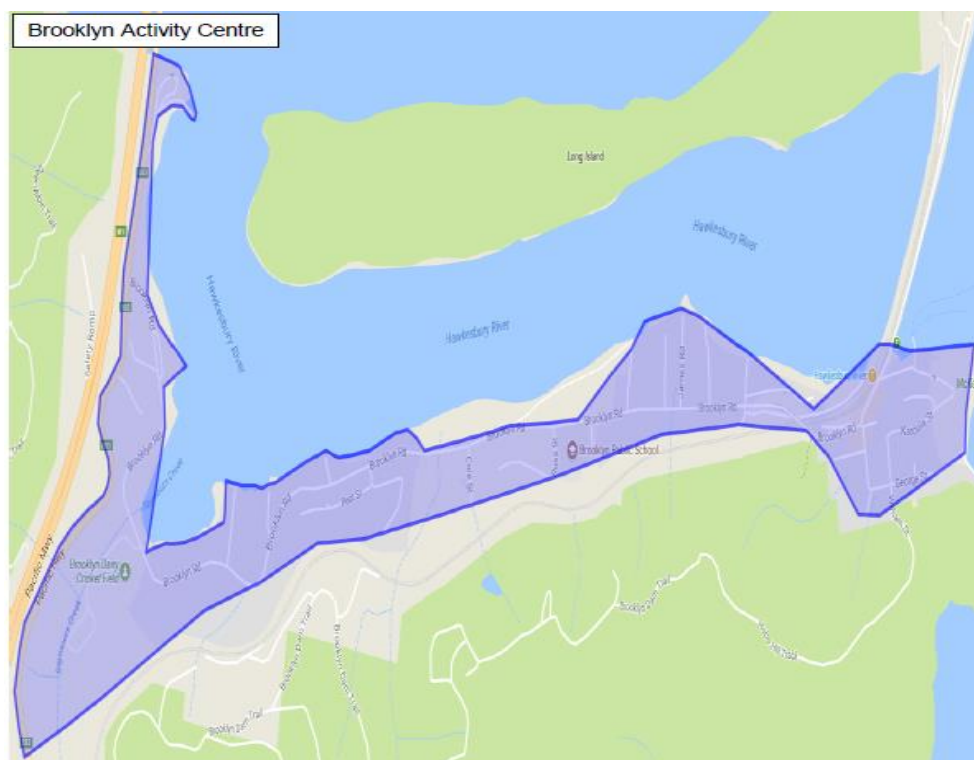


Figure 2.1: Brooklyn Activity Centre survey study area

#### 2.1.1 PARKING SUPPLY

The supply survey identified 1485 parking bays on-street and 909 parking bays off-street within the Brooklyn Activity Centre. A summary of the overall on-street and off-street parking supply in the Brooklyn Activity Centre is presented in Table 2-1 and Table 2-2.

Figure 2.2 and Figure 2.3 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-1: On-street parking inventory within the Brooklyn Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	32	2%
Unrestricted parking	549	37%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	1	0%
Bus zone	11	1%
Others (ambulance, reserved etc.)	72	5%
<b>Total overall supply</b>	<b>665</b>	<b>45%</b>

Table 2-2: Off-street parking inventory within the Brooklyn Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	37	2%
Unrestricted parking	624	42%
Parking for persons with a disability	9	1%
Taxi zone	0	0%
Loading zone	8	1%
Bus zone	3	0%
Others (ambulance, reserved etc.)	208	14%
<b>Total overall supply</b>	<b>889</b>	<b>100%</b>

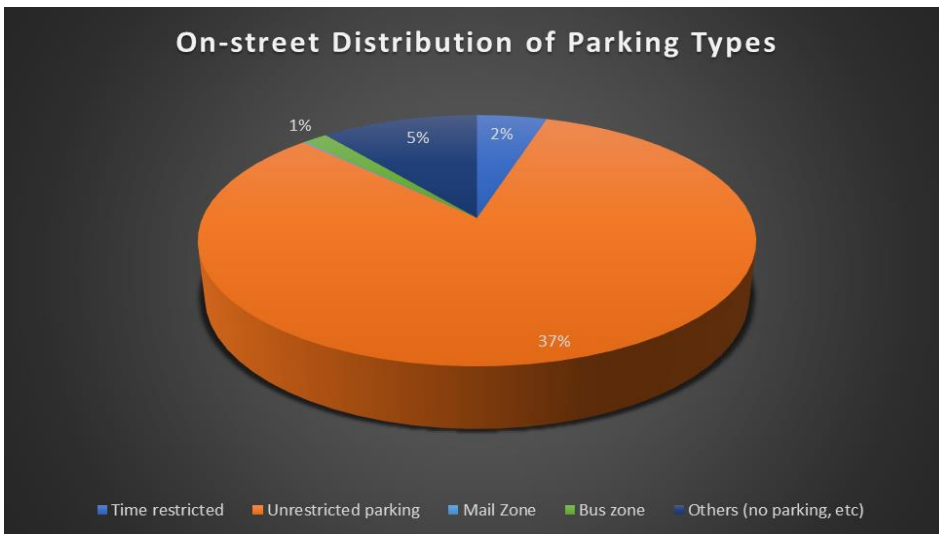


Figure 2.2: Distribution of on-street parking types in the Brooklyn Activity Centre

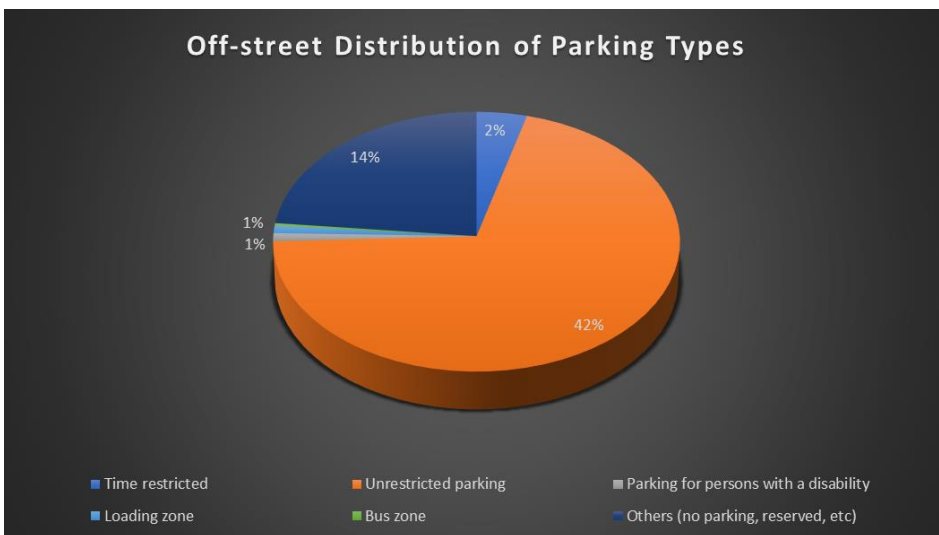


Figure 2.3: Distribution of off-street parking types in the Brooklyn Activity Centre

Table 2-3 presents the breakdown of on-street and off-street parking supply while Figure 2.4 presents the percentage distribution for on-street and off-street parking.

Table 2-3: On-street and off-street parking supply within the Brooklyn Activity Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	116	7%
Unrestricted parking	549	35%
<b>Off-street</b>		
Time restricted parking	265	17%
Unrestricted parking	624	40%
<b>Total</b>	<b>1554</b>	<b>100%</b>



Figure 2.4: Distribution of on-street and off-street parking in the Brooklyn Activity Centre

### 2.1.2 DEMAND

Table 2-4 presents the hourly parking occupancy observed at the Brooklyn Activity Centre, while Figure 2.5, Figure 2.6 and Figure 2.7 present the on-street, off-street and overall hourly parking occupancy.

Table 2-4: Brooklyn Activity Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Sunday	Thursday	Saturday
6:00	767	867	49%	56%
7:00	831	941	53%	61%
8:00	879	986	57%	63%
9:00	928	1015	60%	65%
10:00	954	1060	61%	68%
11:00	985	1061	63%	68%
12:00	1008	1039	65%	67%
13:00	1000	1021	64%	66%
14:00	1000	979	64%	63%
15:00	978	933	63%	60%
16:00	892	889	57%	57%
17:00	830	850	53%	55%

Time	Occupied bays		% Occupied	
18:00	766	800	49%	51%
19:00	723	778	47%	50%
20:00	673	742	43%	48%
21:00	644	713	41%	46%
22:00	616	666	40%	43%

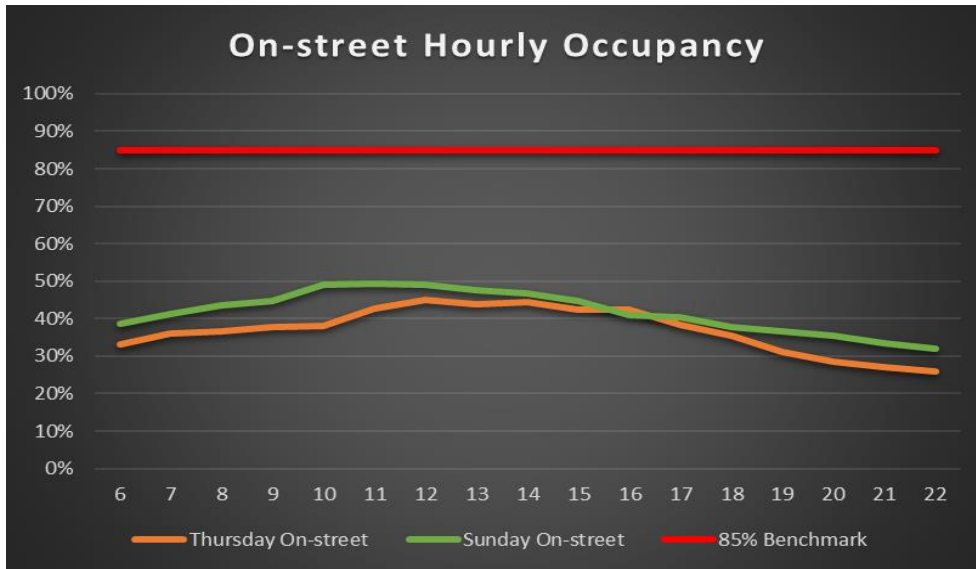


Figure 2.5: On-street hourly occupancy in the Brooklyn Activity Centre

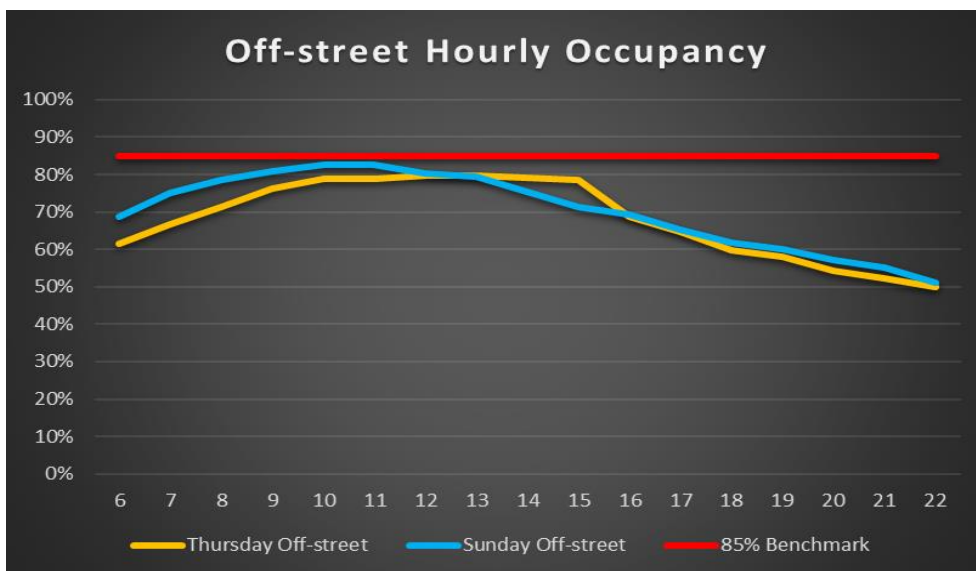


Figure 2.6: Off-street hourly occupancy in the Brooklyn Activity Centre

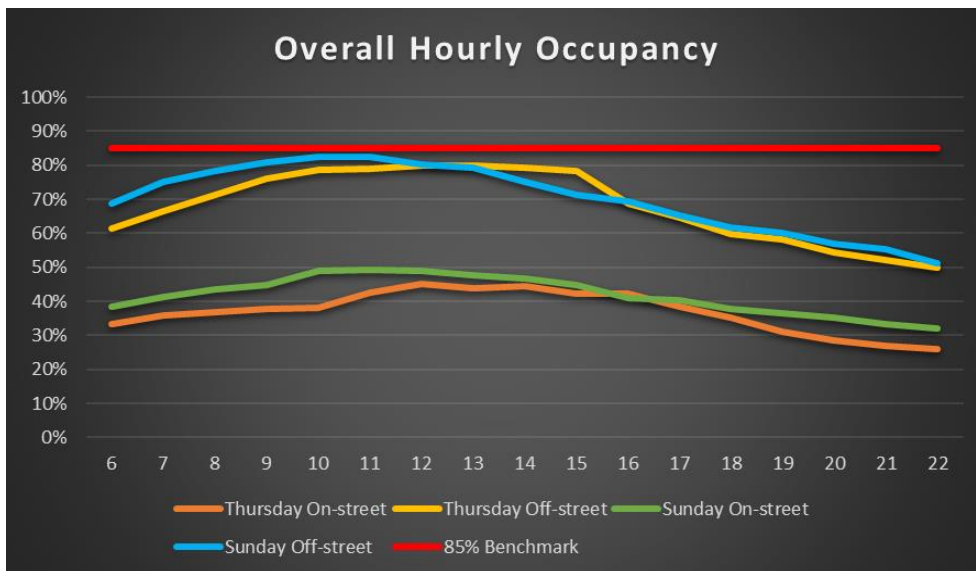


Figure 2.7: Overall Brooklyn Activity Centre parking occupancy

Table 2-5 and Table 2-6 present the on-street and off-street, average and peak occupancy for the Brooklyn Activity Centre.

Table 2-5: On-street parking capacity and occupancy in the Brooklyn Activity Centre

	Thursday	Saturday
Capacity	665	665
Average occupancy	37%	42%
Peak occupancy	45%	49%

Table 2-6: Off-street parking capacity and occupancy in the Brooklyn Activity Centre

	Thursday	Saturday
Capacity	889	889
Average occupancy	68%	70%
Peak occupancy	80%	83%

### 2.1.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-7 and Figure 2.8 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-7: On-street duration of stay in the Brooklyn Activity Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	79	9%	70	8%
1-2hrs	110	13%	76	9%
2-3hrs	106	13%	85	10%
3-4hrs	127	15%	119	14%
4-5hrs	87	10%	121	14%

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
5-6hrs	87	10%	101	12%
6-7hrs	80	10%	71	8%
7-8hrs	63	8%	66	8%
8-9hrs	28	3%	42	5%
9-10hrs	36	4%	31	4%
10+ hrs	35	4%	68	8%
Total	<b>838</b>		<b>850</b>	
Average turnover per bay	1.2		1.3	
Average duration of stay	2.3		3	

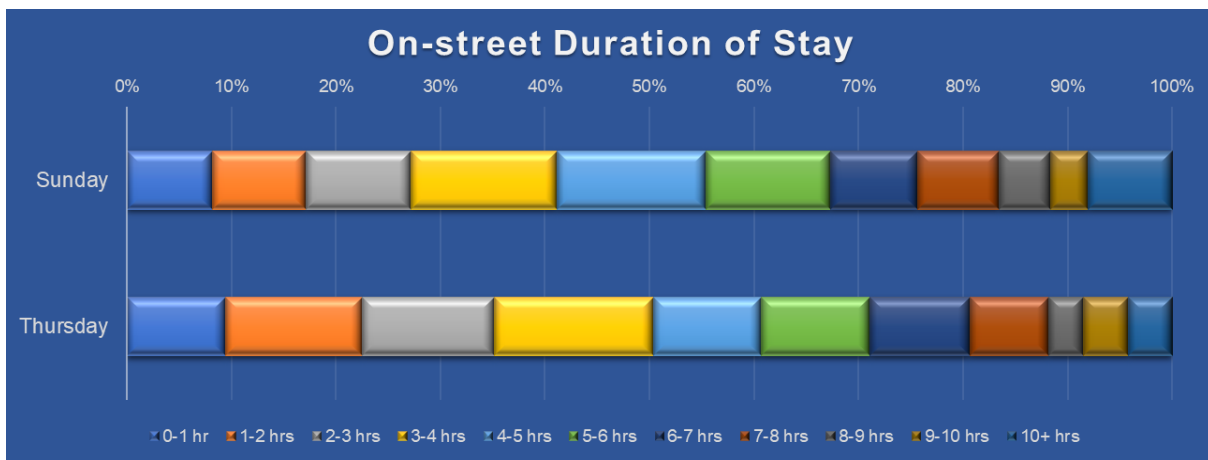


Figure 2.8: On-street duration of stay in the Brooklyn Activity Centre

Table 2-8 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-8: Average on-street turnover in the Brooklyn Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	5.1	4.6
Unrestricted	1.4	1.5

### Off-Street Duration of Stay and Turn Over

Table 2-9 and Figure 2.9 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-9: Off-street duration of stay in the Brooklyn Activity Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	314	16%	157	9%
1-2hrs	195	10%	170	9%
2-3hrs	217	11%	176	10%
3-4hrs	230	12%	198	11%



Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
4-5hrs	199	10%	193	11%
5-6hrs	190	10%	202	11%
6-7hrs	159	8%	183	10%
7-8hrs	145	7%	154	9%
8-9hrs	127	6%	105	6%
9-10hrs	77	4%	101	6%
10+ hrs	136	7%	168	9%
Total	<b>1989</b>		<b>1807</b>	
Average turnover per bay	2		2	
Average duration of stay	3.6		4.1	

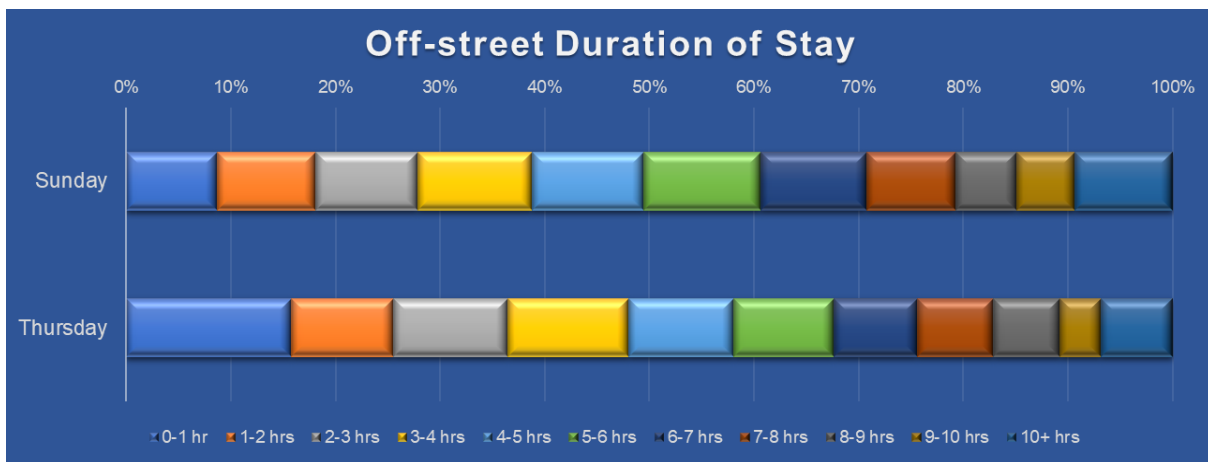


Figure 2.9: Off-street duration of stay in the Brooklyn Activity Centre

Table 2-10 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-10: Average off-street turnover in the Brooklyn Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	5.8	4
Unrestricted	1.9	2.1

## 2.1.4 FINDINGS

The survey results for the Brooklyn Activity Centre revealed the following:

- **There are 381 time-restricted and 1173 unrestricted parking bays located within the study area. Of these, 9% are time restricted and 91% unrestricted.**
- **43% of parking supply is on-street, while 57% is off-street.**
- **Peak occupancy on-street is 45% on a Thursday from 12 pm to 1 pm, and, 49% on a Sunday with peak demand occurring from 11 am to 12 pm.**
- **Peak occupancy off-street is 80% on a Thursday from 12 pm to 2 pm and 83% on a Sunday with peak demand occurring from 10 am to 11 am.**
- **The time-restricted areas of on-street parking generate an average turnover of 5.1 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1.4 cars during the survey on Thursday.**
- **The average length of stay on-street on a Sunday is 3 hours for on-street parking.**

## 2.1.5 TRIP ORIGIN

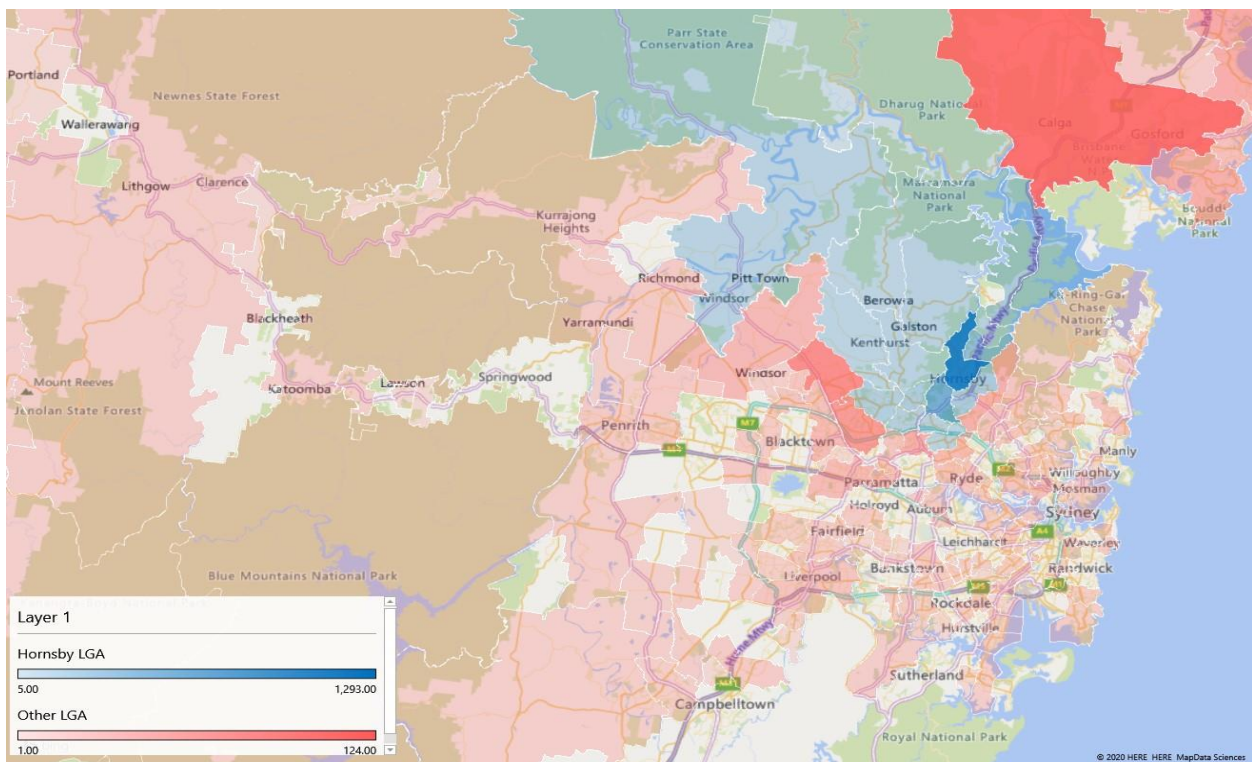


Figure 2.10: Trip origin survey results heat map

The survey results revealed 65.17% of parkers' trip origins in Brooklyn were located within the Hornsby LGA with 34.83% in other surrounding LGA's'.

## 2.2 BEROWRA WATERS ACTIVITY CENTRE

The study area for the Berowra Waters Activity Centre is presented in Figure 2.21.

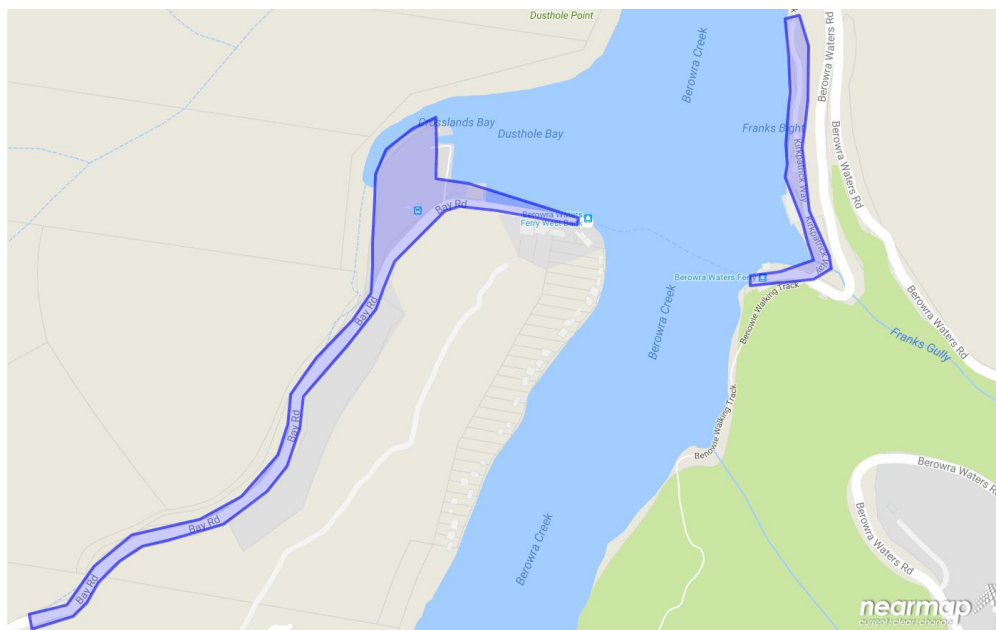


Figure 2.11: Berowra Waters Activity Centre survey study area

### 2.2.1 PARKING SUPPLY

The supply survey identified 332 parking bays on-street and 288 parking bays off-street within the Berowra Waters Activity Centre. A summary of the overall on-street and off-street parking supply in the Berowra Waters Activity Centre is presented in Table 2-21 and Table 2-22.

Figure 2.22 and Figure 2.23 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-11: On-street parking inventory within the Berowra Waters Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	124	37%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	208	63%
<b>Total overall supply</b>	<b>332</b>	<b>100%</b>

Table 2-12: Off-street parking inventory within the Berowra Waters Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	164	57%
Parking for persons with a disability	4	1%
Taxi zone	0	0%
Loading zone	1	0%
Bus zone	3	0%
Others (ambulance, reserved etc.)	116	40%
<b>Total overall supply</b>	<b>288</b>	<b>100%</b>

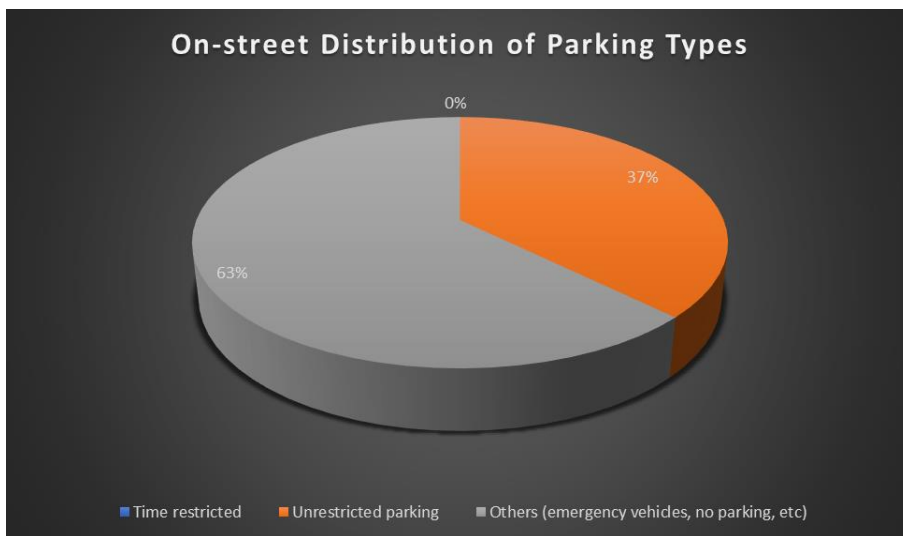


Figure 2.12: Distribution of on-street parking types in the Berowra Waters Activity Centre

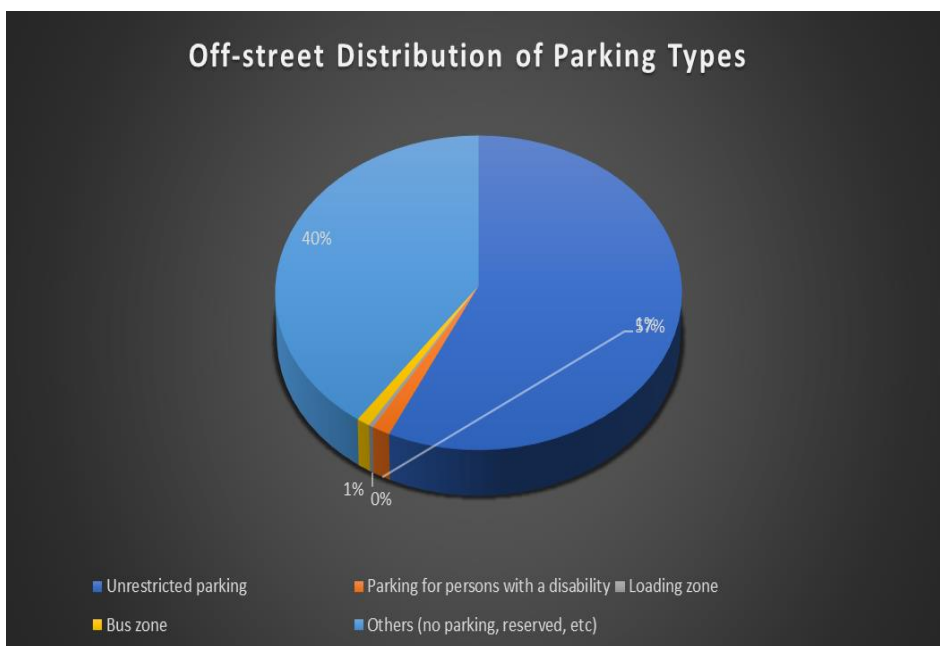


Figure 2.13: Distribution of off-street parking types in the Berowra Waters Activity Centre

Table 2-3 presents the breakdown of on-street and off-street parking supply while Figure 2.24 presents the percentage distribution for on-street and off-street parking.

Table 2-13: On-street and off-street parking supply within the Berowra Waters Activity Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	0	0%
Unrestricted parking	124	43%
<b>Off-street</b>		
Time restricted parking	0	0%
Unrestricted parking	164	57%
<b>Total</b>	<b>288</b>	<b>100%</b>



Figure 2.14: Distribution of on-street and off-street parking in the Berowra Waters Activity Centre

## 2.2.2 DEMAND

Table 2-4: Brooklyn Activity Centre hourly occupancy Table 2-24 presents the hourly parking occupancy observed at the Berowra Waters Activity Centre, while Figure 2.5, Figure 2.26 and Figure 2.27 present the on-street, off-street and overall hourly parking occupancy.

Table 2-14: Berowra Waters Activity Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Sunday	Thursday	Sunday
6:00	195	228	31%	37%
7:00	197	237	32%	38%
8:00	204	251	33%	40%
9:00	215	259	35%	42%
10:00	224	264	36%	43%
11:00	234	271	38%	44%
12:00	230	271	37%	44%

Time	Occupied bays		% Occupied	
13:00	218	269	35%	43%
14:00	218	264	35%	43%
15:00	229	267	37%	43%
16:00	233	273	38%	44%
17:00	234	268	38%	43%
18:00	226	264	36%	43%
19:00	213	267	34%	43%
20:00	200	269	32%	43%
21:00	198	257	32%	41%
22:00	195	246	31%	40%

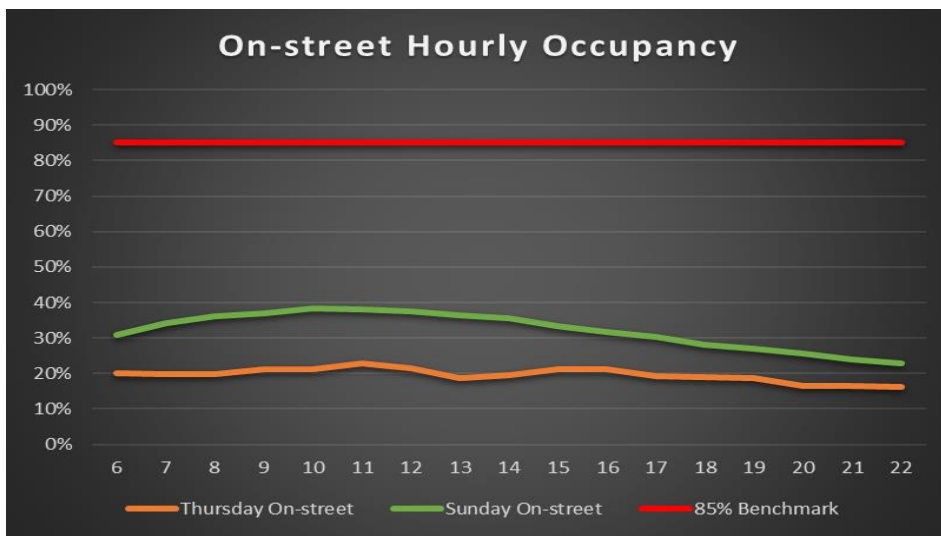


Figure 2.15: On-street hourly occupancy in the Berowra Waters Activity Centre

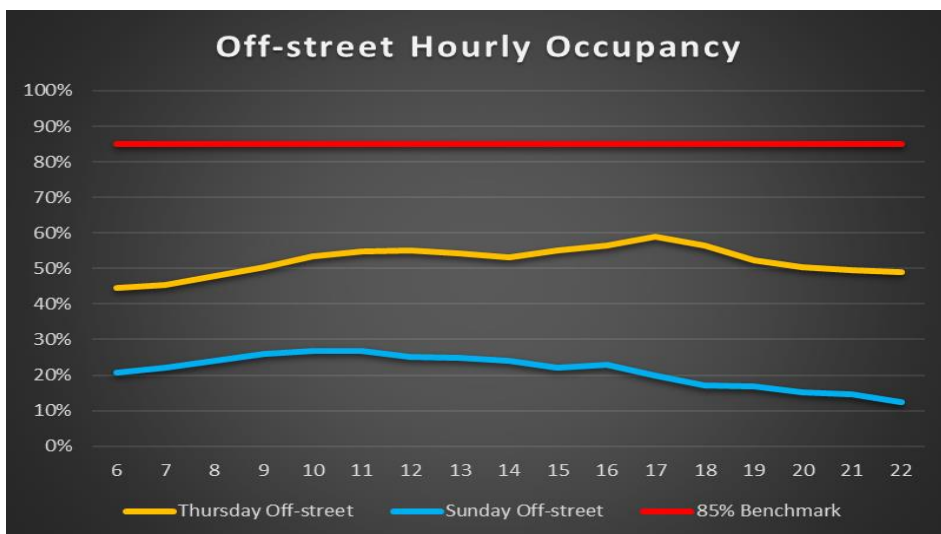


Figure 2.16: Off-street hourly occupancy in the Berowra Waters Activity Centre

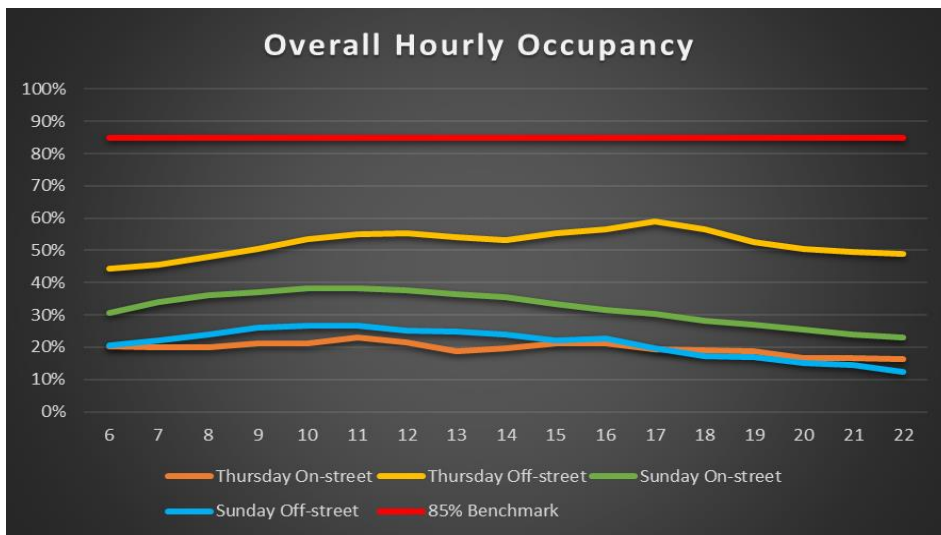


Figure 2.17: Overall Berowra Waters Activity Centre parking occupancy

Table 2-25 and Table 2-26 present the on-street and off-street, average and peak occupancy for the Berowra Waters Activity Centre.

Table 2-15: On-street parking capacity and occupancy in the Berowra Waters Activity Centre

	Thursday	Sunday
Capacity	332	332
Average occupancy	20%	32%
Peak occupancy	23%	38%

Table 2-16: Off-street parking capacity and occupancy in the Berowra Waters Activity Centre

	Thursday	Sunday
Capacity	288	288
Average occupancy	52%	21%
Peak occupancy	59%	27%

### 2.2.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-27 and Figure 2.28 presents the on-street duration of stay and average turnover observed on Thursday and Sunday.

Table 2-17: On-street duration of stay in the Berowra Waters Activity Centre

Time	Thursday		Sunday	
	Vehicles	%	Vehicles	%
0-1hr	14	7%	17	8%
1-2hrs	16	8%	12	6%
2-3hrs	19	10%	21	10%
3-4hrs	23	12%	32	15%
4-5hrs	19	10%	27	12%
5-6hrs	30	16%	19	9%

Time	Thursday		Sunday	
	Vehicles	%	Vehicles	%
6-7hrs	23	12%	33	15%
7-8hrs	12	6%	21	10%
8-9hrs	9	5%	11	5%
9-10hrs	7	4%	9	4%
10+ hrs	17	9%	15	7%
Total	189	100%	217	100%
Average turnover per bay	0.70		1.9	
Average duration of stay	1.9		5.1	

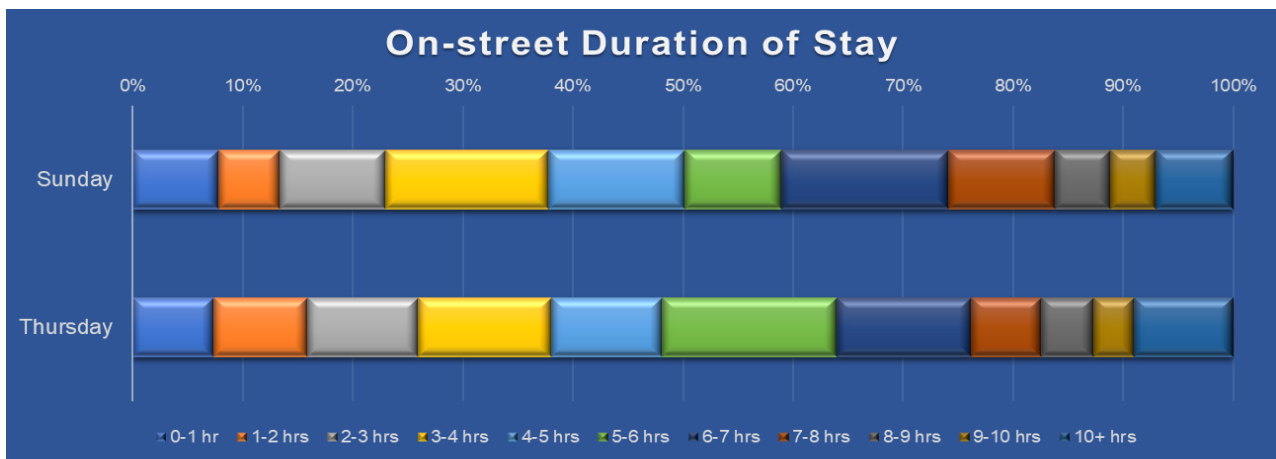


Figure 2.18: On-street duration of stay in the Berowra Waters Activity Centre

Table 2-28 presents the Thursday and Sunday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-18: Average on-street turnover in the Berowra Waters Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Sunday
Time restricted	1.4	2.3
Unrestricted	1.7	1.8

### Off-Street Duration of Stay and Turn Over

Table 2-29 and Figure 2.29 presents the off-street duration of stay and average turnover observed on Thursday and Sunday.

Table 2-19: Off-street duration of stay in the Berowra Waters Activity Centre

Time	Thursday		Sunday	
	Vehicles	%	Vehicles	%
0-1hr	26	8%	22	6%
1-2hrs	32	10%	24	7%
2-3hrs	17	5%	27	8%
3-4hrs	40	13%	42	12%



Time	Thursday		Sunday	
	Vehicles	%	Vehicles	%
4-5hrs	43	14%	32	9%
5-6hrs	34	11%	49	14%
6-7hrs	29	9%	46	13%
7-8hrs	32	10%	39	11%
8-9hrs	20	6%	19	5%
9-10hrs	17	5%	20	6%
10+ hrs	23	7%	30	9%
Total	313	100%	350	100%
Average turnover per bay	1.1		2.0	
Average duration of stay	2.9		5.2	



Figure 2.19: Off-street duration of stay in the Berowra Waters Activity Centre

Table 2-30 presents the Thursday and Sunday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-20: Average off-street turnover in the Berowra Waters Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Sunday
Time restricted	N/A	N/A
Unrestricted	1.5	2.0

## 2.2.4 FINDINGS

The survey results for the Berowra Waters Activity Centre revealed the following:

- **There are 620 parking bays located within the study area. Of these, there is no time restricted parking, all parking is unrestricted.**
- **43% of parking supply is on-street, while 57% is off-street.**
- **Peak occupancy on-street is 23% on a Thursday at 11am, and, 38% on a Saturday with peak demand occurring between 10am and 1pm as visitation to the precinct increases.**
- **Peak occupancy off-street is 59% on a Thursday at 5pm and 27% on a Saturday with peak demand occurring from 10am to 12pm.**

- The time-restricted areas of on-street parking generate an average turnover of 1.4 cars during the survey on Thursday.
- The unrestricted areas of on-street parking generate an average turnover of 1.7 cars during the survey on Thursday.
- The average length of stay on-street on a Saturday is 5.1 hours.

## 2.2.5 TRIP ORIGIN

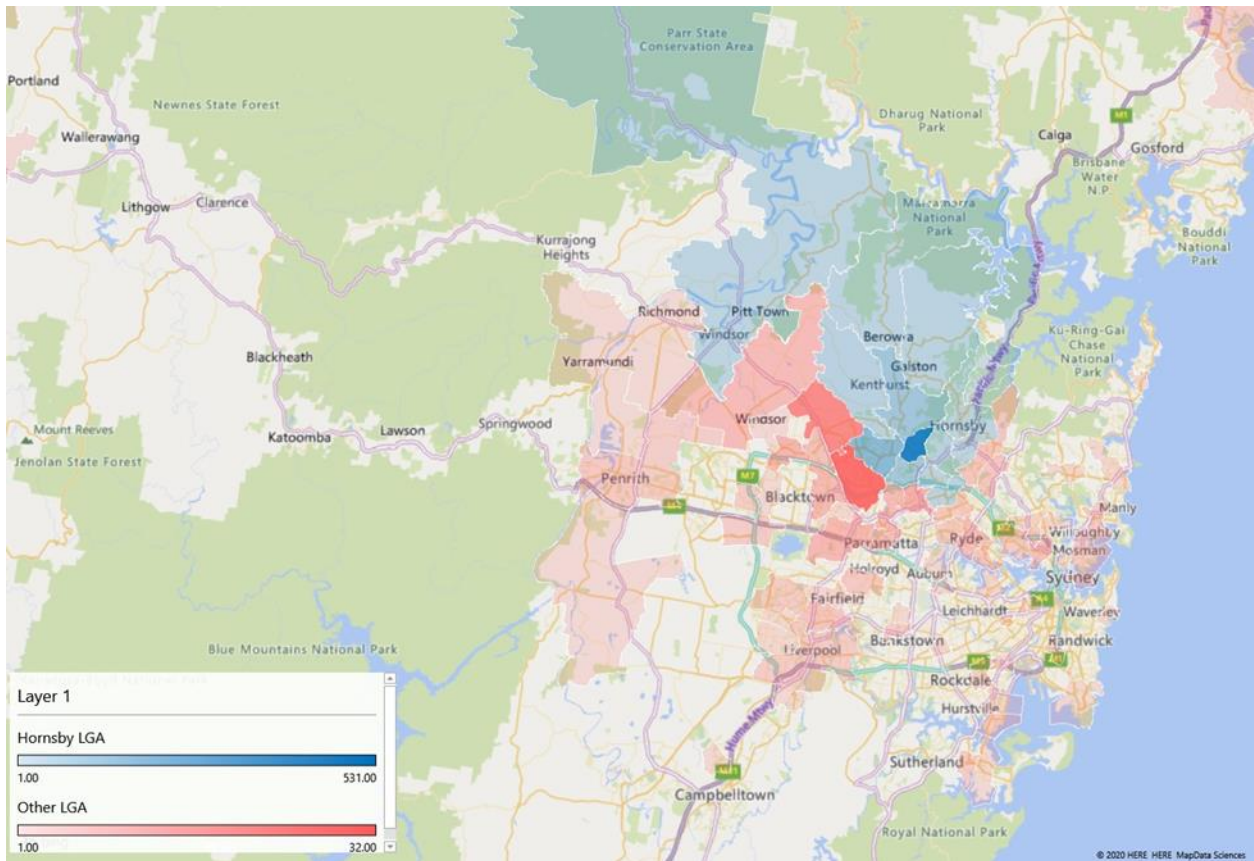


Figure 2.20: Trip origin survey results heat map

The survey results revealed 75.41% of parkers' trip origins in Berowra Waters were located within the Hornsby LGA with 24.59% in other surrounding LGA's'.

## 2.3 ASQUITH TOWN CENTRE

The study area for the Asquith Town Centre is presented in Figure 2.21.

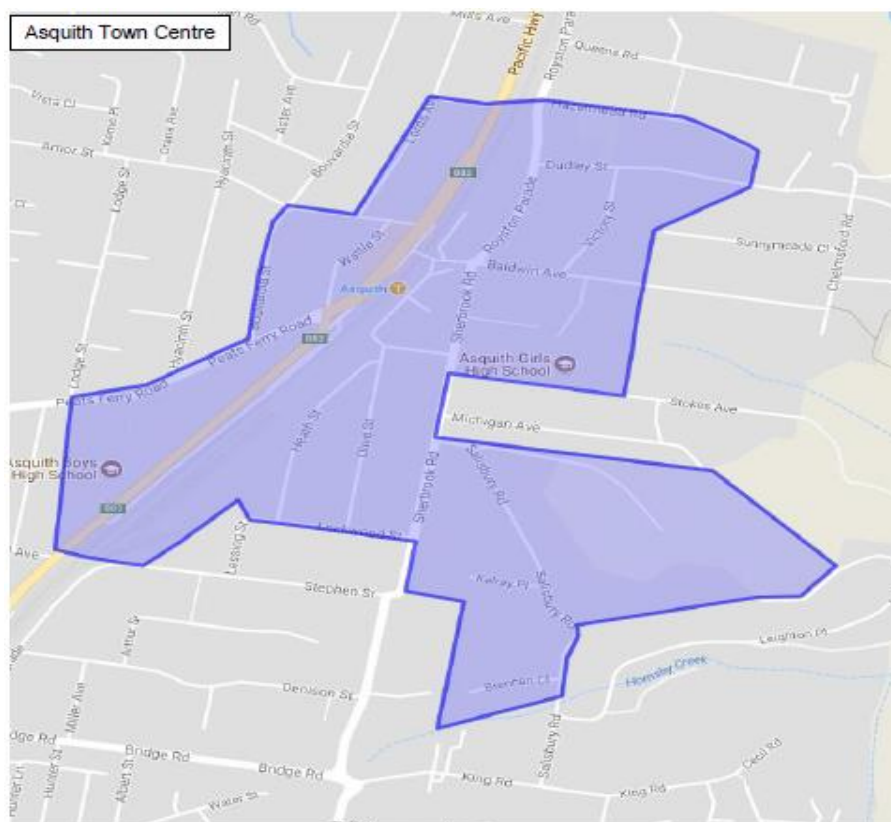


Figure 2.21: Asquith Town Centre survey study area

### 2.3.1 PARKING SUPPLY

The supply survey identified 1434 parking bays on-street and 336 parking bays off-street within the Asquith Town Centre. A summary of the overall on-street and off-street parking supply in the Asquith Town Centre is presented in Table 2-21 and Table 2-22.

Figure 2.22 and Figure 2.23 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-21: On-street parking inventory within the Asquith Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	48	3%
Unrestricted parking	1355	94%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	7	0%
Others (ambulance, reserved etc.)	24	2%
Total overall supply	1434	100%

Table 2-22: Off-street parking inventory within the Asquith Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	49	15%
Unrestricted parking	238	71%
Parking for persons with a disability	10	3%
Taxi zone	0	0%
Loading zone	2	1%
Bus zone	0	0%
Others (ambulance, reserved etc.)	37	11%
Total overall supply	336	100%

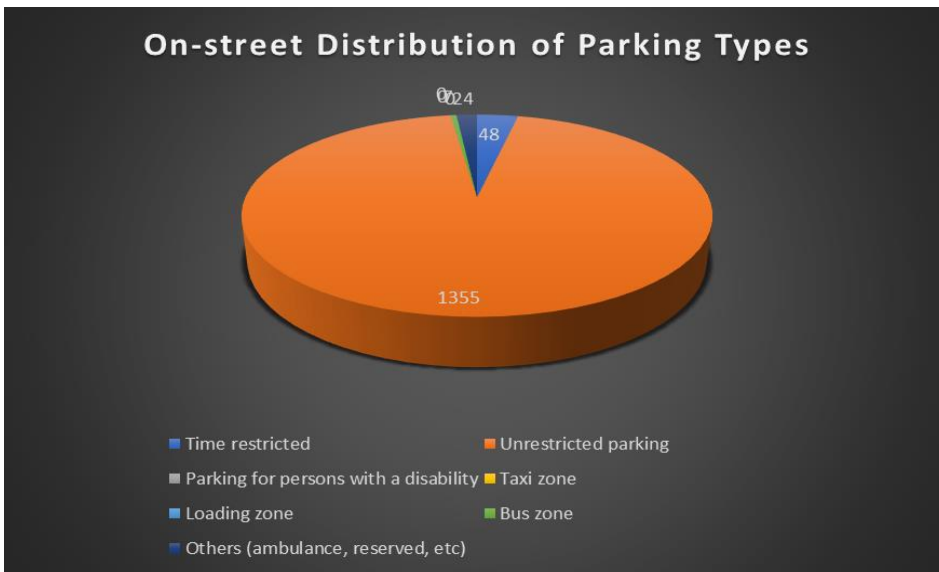


Figure 2.22: Distribution of on-street parking types in the Asquith Town Centre

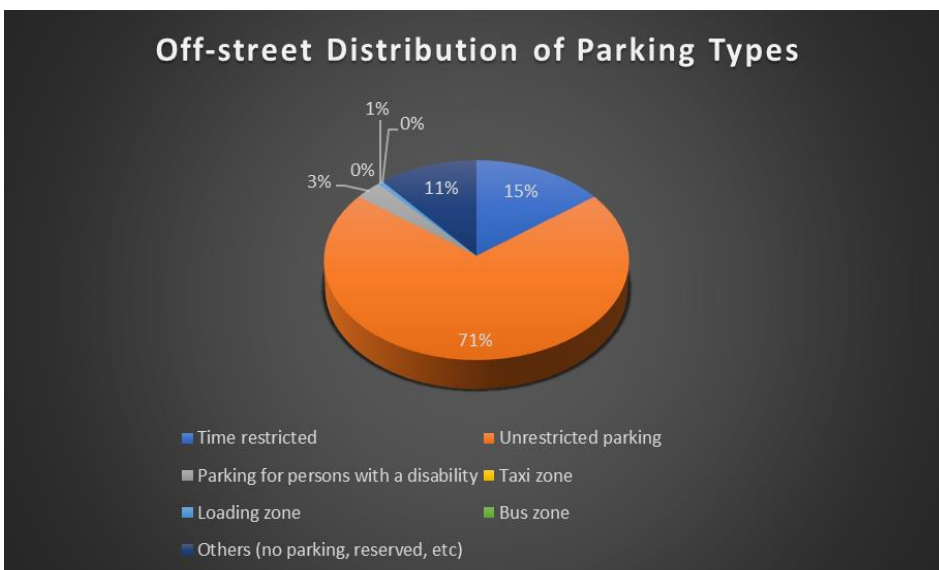


Figure 2.23: Distribution of off-street parking types in the Asquith Town Centre

Table 2-3 presents the breakdown of on-street and off-street parking supply while Figure 2.14 presents the percentage distribution for on-street and off-street parking.

Table 2-23: On-street and off-street parking supply within the Asquith Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	48	3%
Unrestricted parking	1355	80%
<b>Off-street</b>		
Time restricted parking	49	3%
Unrestricted parking	238	14%
<b>Total</b>	<b>1690</b>	<b>100%</b>



Figure 2.24: Distribution of on-street and off-street parking in the Asquith Town Centre

### 2.3.2 DEMAND

Table 2-4: Brooklyn Activity Centre hourly occupancy Table 2-24 presents the hourly parking occupancy observed at the Asquith Town Centre, while Figure 2.25, Figure 2.26 and Figure 2.27 present the on-street, off-street and overall hourly parking occupancy.

Table 2-24: Asquith Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
8:00	30	27	35%	32%
9:00	30	34	35%	40%
10:00	25	34	29%	40%
11:00	34	43	40%	51%
12:00	35	43	41%	51%
13:00	40	47	47%	55%
14:00	52	52	61%	61%
15:00	53	51	62%	60%
16:00	47	46	55%	54%

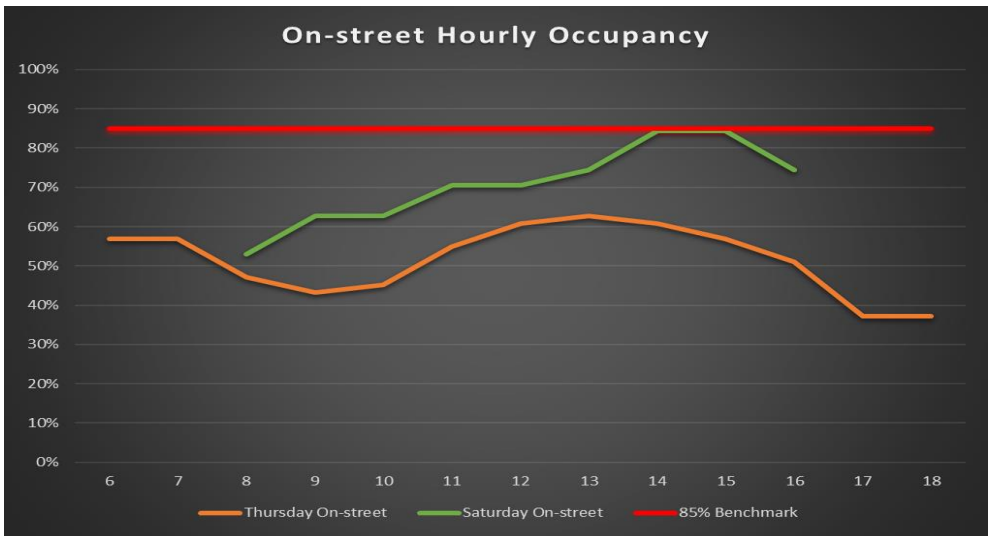


Figure 2.25: On-street hourly occupancy in the Asquith Town Centre

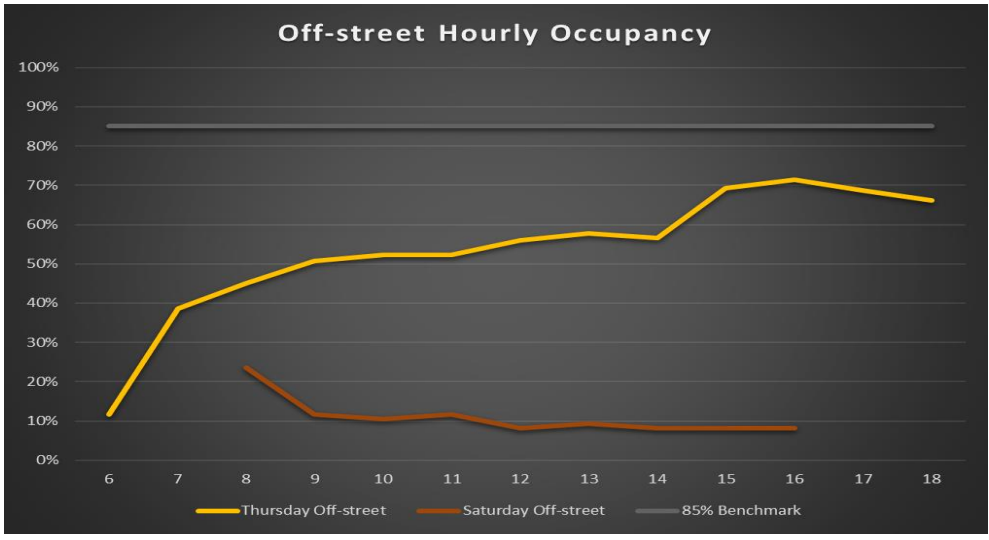


Figure 2.26: Off-street hourly occupancy in the Asquith Town Centre

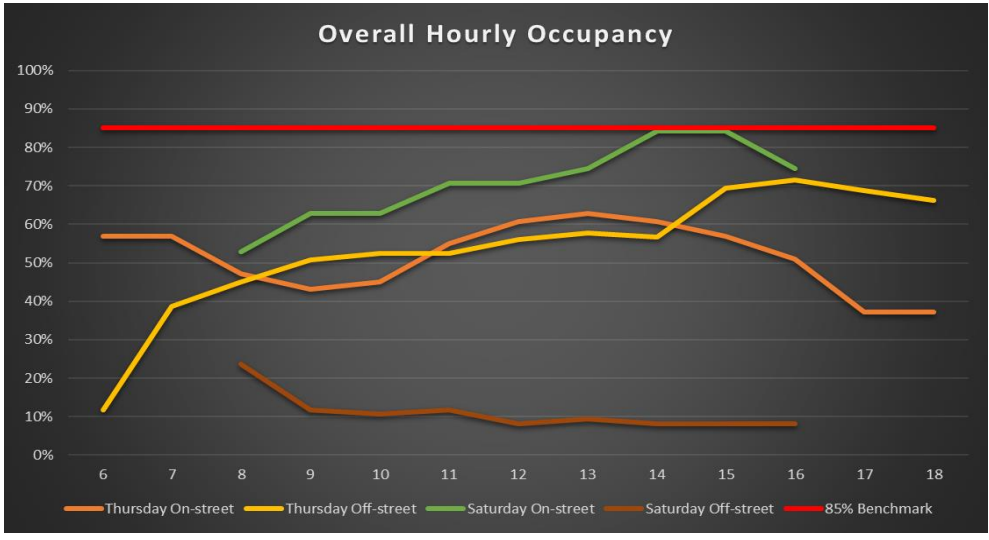


Figure 2.27: Overall Asquith Town Centre parking occupancy

Table 2-25 and Table 2-26 present the on-street and off-street, average and peak occupancy for the Asquith Town Centre.

Table 2-25: On-street parking capacity and occupancy in the Asquith Town Centre

	Thursday	Saturday
Capacity	51	51
Average occupancy	52%	49%
Peak occupancy	57%	84%

Table 2-26: Off-street parking capacity and occupancy in the Asquith Town Centre

	Thursday	Saturday
Capacity	256	85
Average occupancy	54%	11%
Peak occupancy	71%	24%

### 2.3.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-27 and Figure 2.28 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-27: On-street duration of stay in the Asquith Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	2	3%	3	5%
1-2hrs	11	17%	3	5%
2-3hrs	5	8%	12	19%
3-4hrs	13	20%	10	16%
4-5hrs	10	15%	10	16%
5-6hrs	8	12%	6	10%
6-7hrs	2	3%	2	3%
7-8hrs	3	5%	4	6%
8-9hrs	4	6%	12	19%
9-10hrs	1	2%		
10+ hrs	6	9%		
<b>Total</b>	<b>65</b>		<b>62</b>	
Average turnover per bay	1.1		1.1	
Average duration of stay	3.1		2.2	

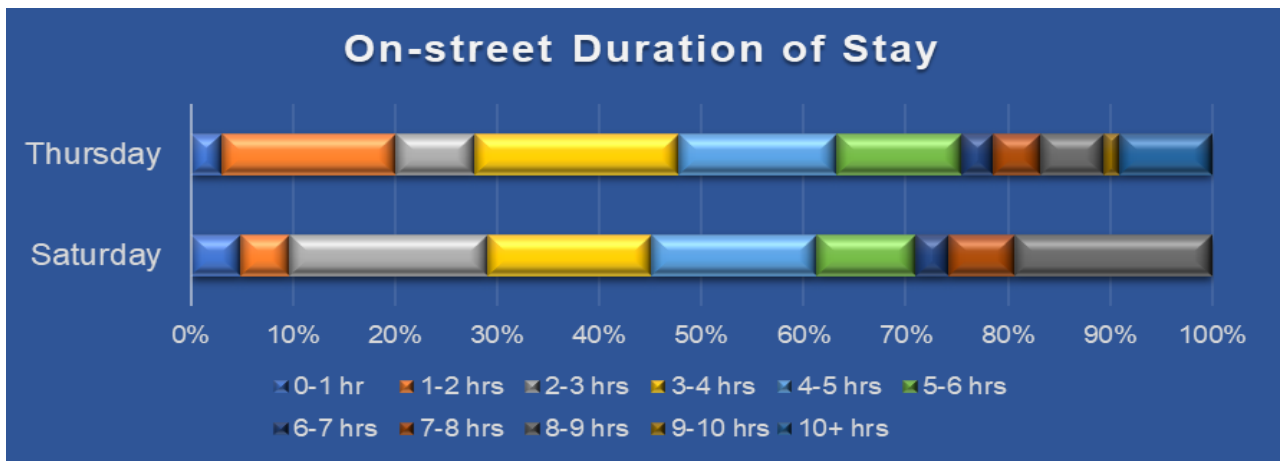


Figure 2.28: On-street duration of stay in the Asquith Town Centre

Table 2-28 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-28: Average on-street turnover in the Asquith Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.3	1.1
Unrestricted	1.6	0.6

### Off-Street Duration of Stay and Turn Over

Table 2-29 and Figure 2.29 presents the off-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-29: Off-street duration of stay in the Asquith Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	45	18%	20	24%
1-2hrs	31	12%	10	12%
2-3hrs	34	13%	9	11%
3-4hrs	38	15%	10	12%
4-5hrs	14	5%	7	8%
5-6hrs	17	7%	8	9%
6-7hrs	10	4%	7	8%
7-8hrs	8	3%	7	8%
8-9hrs	12	5%	7	8%
9-10hrs	8	3%		
10+ hrs	39	15%		
Total	256		85	
Average turnover per bay		1.1		0.3
Average duration of stay		3.4		1.1





Figure 2.29: Off-street duration of stay in the Asquith Town Centre

Table 2-30 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-30: Average off-street turnover in the Asquith Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.2	0.3
Unrestricted	1	1

### 2.3.4 FINDINGS

The survey results for the Asquith Town Centre revealed the following:

- **There are 1,770 parking bays located within the study area. Of these, 6% are time restricted and 94% unrestricted.**
- **83% of parking supply is on-street, while 17% is off-street.**
- **Peak occupancy on-street is 63% on a Thursday at 1 pm, and, 84% on a Saturday with peak demand occurring from 2 pm to 4 pm.**
- **Peak occupancy off-street is 71% on a Thursday at 4 pm and 24% on a Saturday with peak demand occurring at 9 am.**
- **The time-restricted areas of on-street parking generate an average turnover of 2.3 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1.6 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 4.2 hours for on-street parking.**

### 2.3.5 TRIP ORIGIN

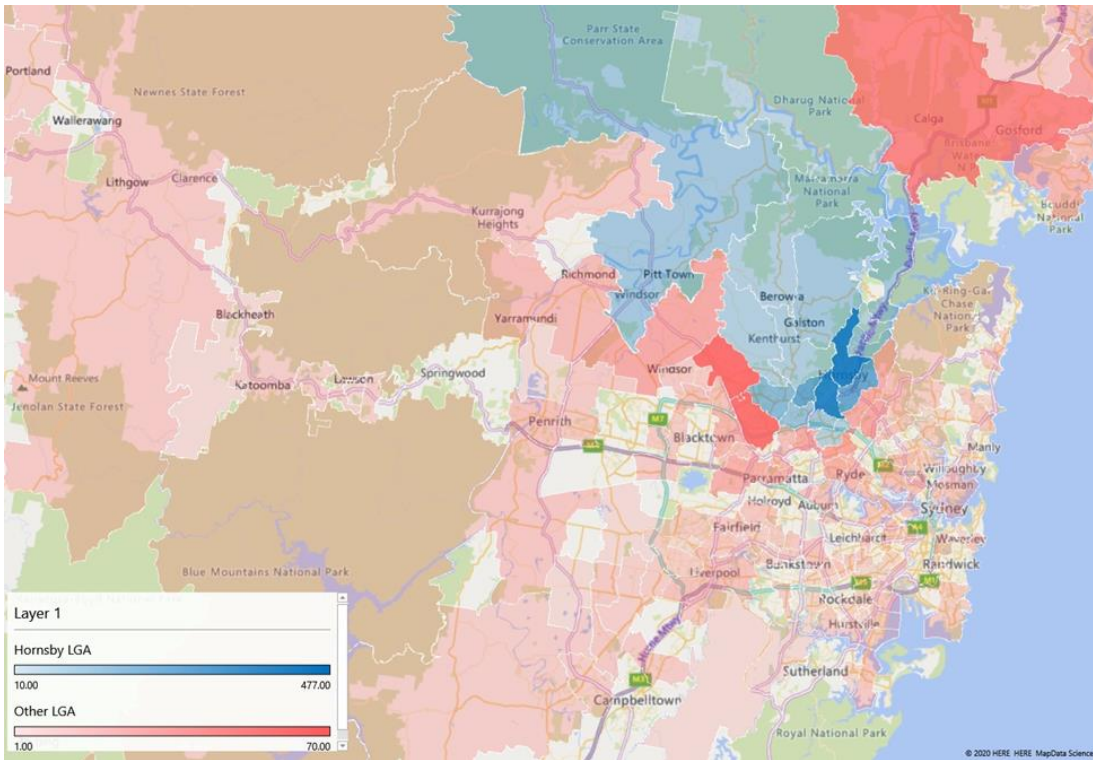


Figure 2.30: Trip origin survey results heat map

The survey results revealed 64.49% of parkers' trip origins in Asquith were located within the Hornsby LGA with 35.51% in other surrounding LGA's'.

## 2.4 BEECROFT TOWN CENTRE

The study area for the Beecroft Town Centre is presented in Figure 2.31.

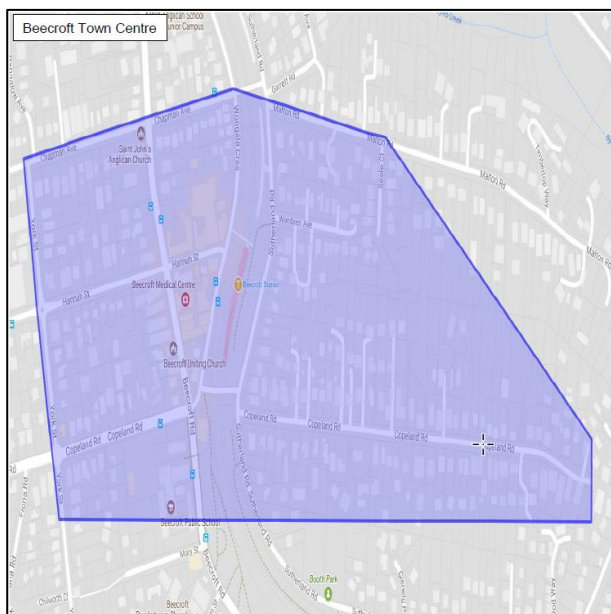


Figure 2.31: Beecroft Town Centre survey study area

### 2.4.1 PARKING SUPPLY

The supply survey identified 927 parking bays on-street and 489 parking bays off-street within the Beecroft Town Centre. A summary of the overall on-street and off-street parking supply in the Beecroft Town Centre is presented in Table 2-31 and Table 2-32.

Figure 2.32 and Figure 2.33 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-31: On-street parking inventory within the Beecroft Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	110	12%
Unrestricted parking	677	73%
Parking for persons with a disability	3	0%
Taxi zone	3	0%
Loading zone	0	0%
Bus zone	6	1%
Others (ambulance, reserved etc.)	128	14%
Total overall supply	927	100%

Table 2-32: Off-street parking inventory within the Beecroft Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	277	57%
Unrestricted parking	188	38%
Parking for persons with a disability	17	3%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	7	1%
Total overall supply	489	100%

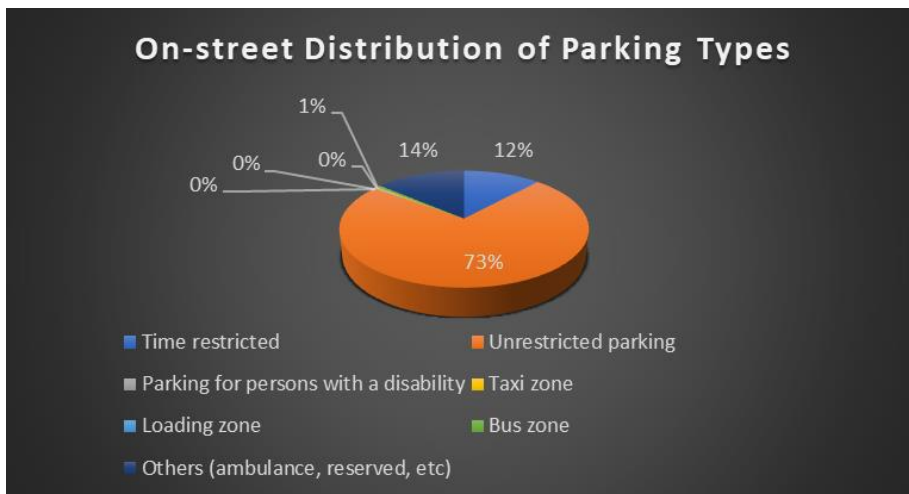


Figure 2.32: Distribution of on-street parking types in the Beecroft Town Centre



Figure 2.33: Distribution of off-street parking types in the Beecroft Town Centre

Table 2-33 presents the breakdown of on-street and off-street parking supply while Figure 2.34 presents the percentage distribution for on-street and off-street parking.

Table 2-33: On-street and off-street parking supply within the Beecroft Town Centre

Parking type	Parking bays	% of total
On-street		

Parking type	Parking bays	% of total
Time restricted parking	110	9%
Unrestricted parking	677	54%
Off-street		
Time restricted parking	277	22%
Unrestricted parking	188	15%
Total	1252	100%



Figure 2.34: Distribution of on-street and off-street parking in the Beecroft Town Centre

## 2.4.2 DEMAND

Table 2-34 presents the hourly parking occupancy observed at the Beecroft Town Centre, while Figure 2.5, Figure 2.6 and Figure 2.7 present the on-street, off-street and overall hourly parking occupancy.

Table 2-34: Beecroft Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	320		57%	
7:00	337		60%	
8:00	347	132	61%	23%
9:00	364	141	64%	25%
10:00	366	146	65%	26%
11:00	366	143	65%	25%
12:00	368	157	65%	28%
13:00	372	157	66%	28%
14:00	379	153	67%	27%
15:00	326	141	58%	25%
16:00	267	132	47%	23%
17:00	248		44%	

Time	Occupied bays	% Occupied
18:00	243	43%

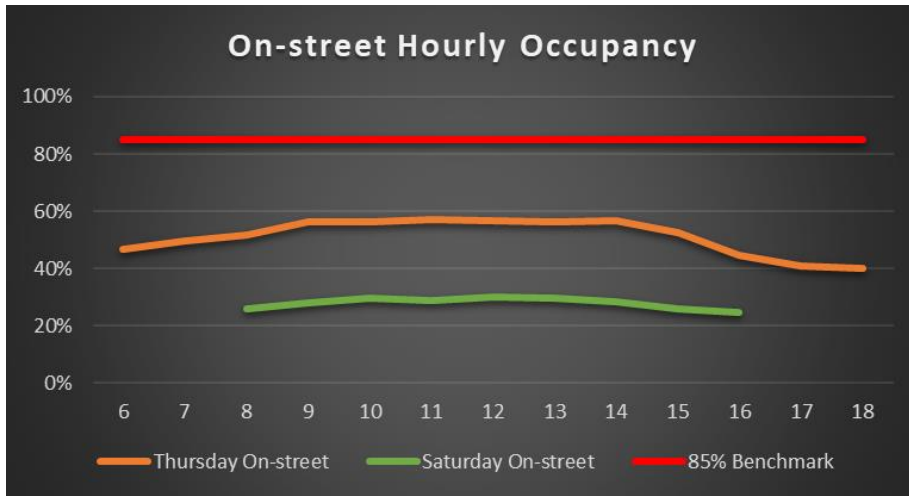


Figure 2.35: On-street hourly occupancy in the Beecroft Town Centre

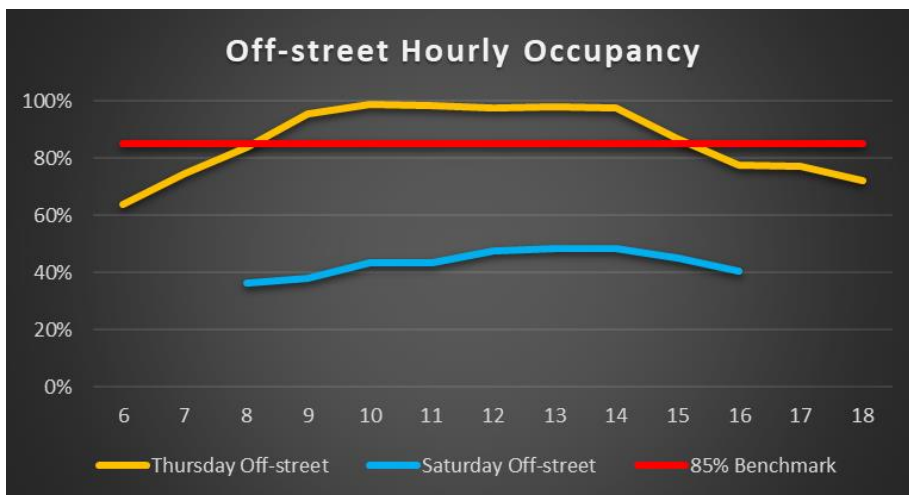


Figure 2.36: Off-street hourly occupancy in the Beecroft Town Centre

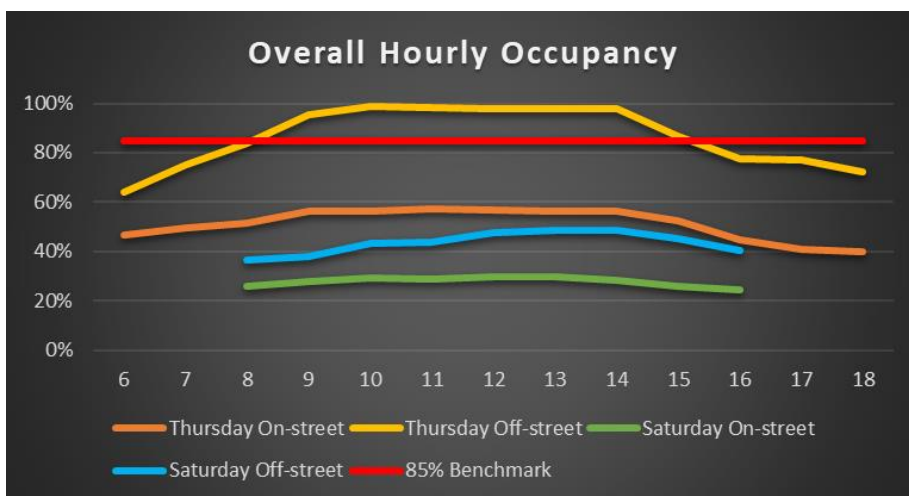


Figure 2.37: Overall Beecroft Town Centre parking occupancy

Table 2-35 and Table 2-36 present the on-street and off-street, average and peak occupancy for the Beecroft Town Centre.

Table 2-35: On-street parking capacity and occupancy in the Beecroft Town Centre

	Thursday	Saturday
Capacity	503	503
Average occupancy	51%	28%
Peak occupancy	57%	30%

Table 2-36: Off-street parking capacity and occupancy in the Beecroft Town Centre

	Thursday	Saturday
Capacity	328	307
Average occupancy	86%	44%
Peak occupancy	99%	49%

### 2.4.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-37 and Figure 2.38 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-37: On-street duration of stay in the Beecroft Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	80	12%	28	13%
1-2hrs	61	9%	22	10%
2-3hrs	67	10%	24	11%
3-4hrs	102	16%	28	13%
4-5hrs	66	10%	31	14%
5-6hrs	85	13%	16	7%
6-7hrs	68	10%	10	5%
7-8hrs	43	7%	17	8%
8-9hrs	39	6%	40	19%
9-10hrs	15	2%		
10+ hrs	31	5%		
<b>Total</b>	<b>657</b>		<b>216</b>	
Average turnover per bay	1.6		0.6	
Average duration of stay	3.7		1.5	

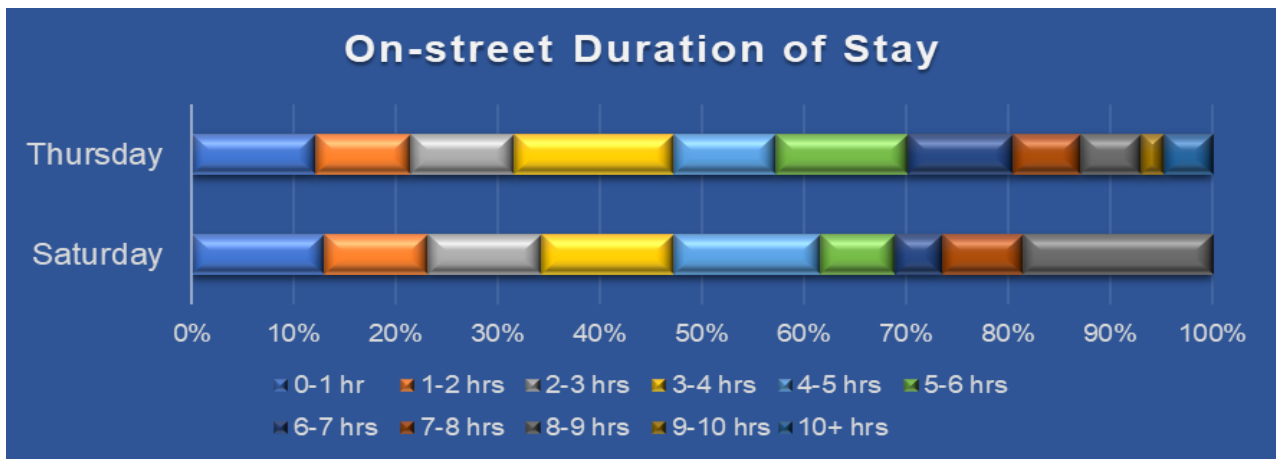


Figure 2.38: On-street duration of stay in the Beecroft Town Centre

Table 2-38 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-38: Average on-street turnover in the Beecroft Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.1	1
Unrestricted	1	0.3

### Off-Street Duration of Stay and Turn Over

Table 2-39 and Figure 2.9 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-39: Off-street duration of stay in the Beecroft Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	185	18%	101	23%
1-2hrs	252	25%	121	27%
2-3hrs	236	23%	107	24%
3-4hrs	143	14%	68	15%
4-5hrs	40	4%	21	5%
5-6hrs	37	4%	13	3%
6-7hrs	28	3%	3	1%
7-8hrs	11	1%	0	0%
8-9hrs	27	3%	7	2%
9-10hrs	22	2%		
10+ hrs	25	2%		
Total	1006		441	
Average turnover per bay	1.8		1.1	
Average duration of stay	3.2		1.4	



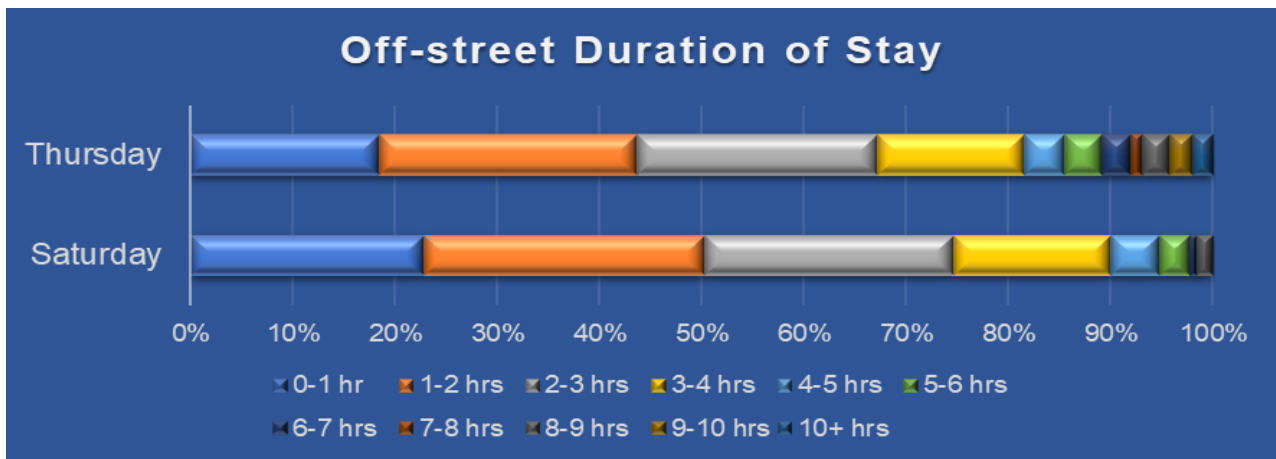


Figure 2.39: Off-street duration of stay in the Beecroft Town Centre

Table 2-40 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-40: Average off-street turnover in the Beecroft Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.9	4.5
Unrestricted	1.2	0.2

#### 2.4.4 FINDINGS

The survey results for the Beecroft Town Centre revealed the following:

- **There are 1416 parking bays located within the study area. Of these, 31% are time restricted and 69% unrestricted.**
- **63% of parking supply is on-street, while 37% is off-street.**
- **Peak occupancy on-street is 57% on a Thursday at 11 am, and, 30% on a Saturday with peak demand occurring at 12 pm.**
- **Peak occupancy off-street is 99% on a Thursday at 10 am and 49% on a Saturday with peak demand occurring from 1 pm to 3 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 2.1 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1 car during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 1.5 hours for on-street parking.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **Copeland Road – North**
  - **Copeland Road – South**
  - **Hannah Street**
  - **Wandeen Avenue**
  - **Sutherland Road.**

## 2.4.5 TRIP ORIGIN

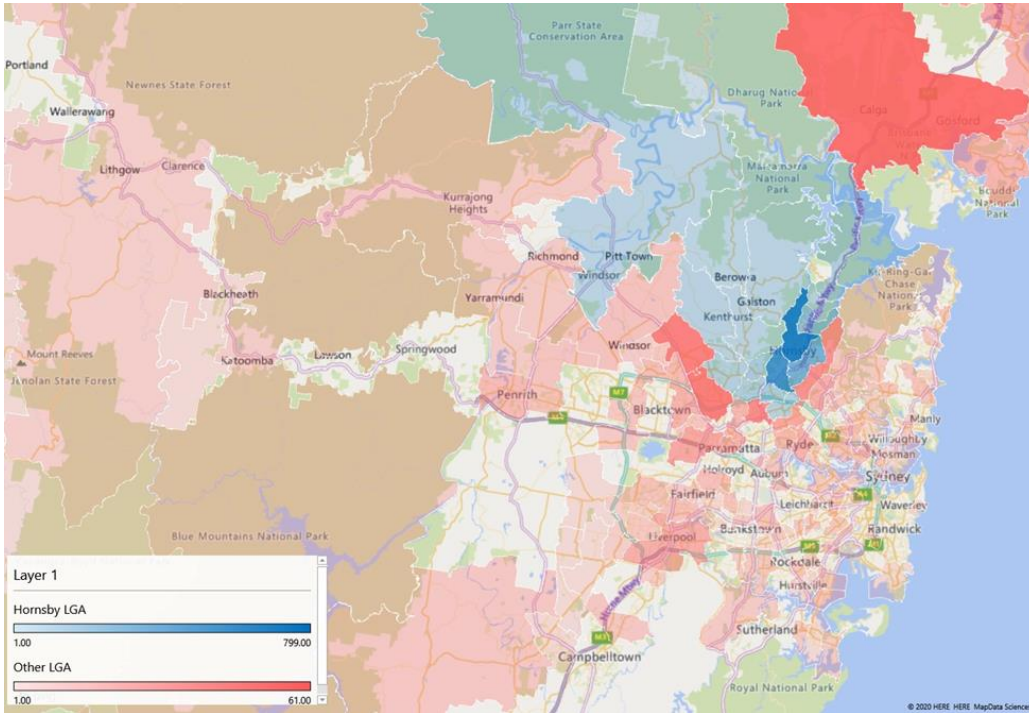


Figure 2.40: Trip origin survey results heat map

The survey results revealed 66.10% of parkers' trip origins in Beecroft were located within the Hornsby LGA with 33.90% in other surrounding LGA's'.

## 2.5 CHELTENHAM TOWN CENTRE

The study area for the Cheltenham Town Centre is presented in Figure 2.31.



Figure 2.41: Cheltenham Town Centre survey study area

### 2.5.1 PARKING SUPPLY

The supply survey identified 844 parking bays on-street and 11 parking bays off-street within the Cheltenham Town Centre. A summary of the overall on-street and off-street parking supply in the Cheltenham Town Centre is presented in Table 2-41 and Table 2-42.

Figure 2.42 presents the distribution of on-street parking types in pie chart format. As the total number off-street parking bays is so small, no activity was captured when survey was conducted on both Thursday and Saturday.

Table 2-41: On-street parking inventory within the Cheltenham Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	113	13%
Unrestricted parking	715	85%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	9	1%
Others (ambulance, reserved etc.)	7	1%
Total overall supply	844	100%

Table 2-42: Off-street parking inventory within the Cheltenham Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	6	55%
Parking for persons with a disability	5	45%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	0	0%
Total overall supply	11	100%

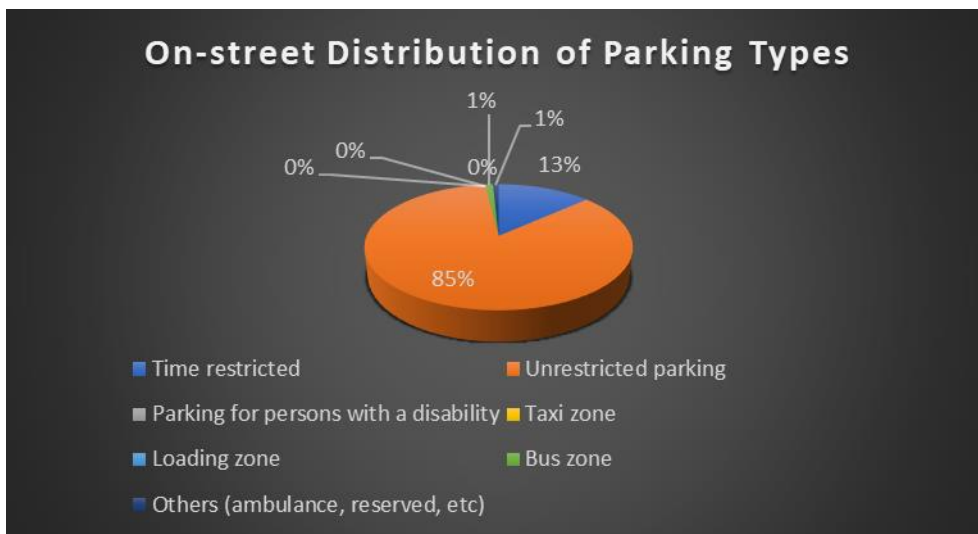


Figure 2.42: Distribution of on-street parking types in the Cheltenham Town Centre

Table 2-43 presents the breakdown of on-street and off-street parking supply while Figure 2.44 presents the percentage distribution for on-street and off-street parking.

Table 2-43: On-street and off-street parking supply within the Cheltenham Town Centre

Parking type	Parking bays	% of total
On-street		
Time restricted parking	113	14%
Unrestricted parking	715	86%
Off-street		
Time restricted parking	0	0%
Unrestricted parking	6	1%
Total	834	100%



Figure 2.43: Distribution of on-street and off-street parking in the Cheltenham Town Centre

### 2.5.2 DEMAND

Table 2-44 presents the hourly parking occupancy observed at the Cheltenham Town Centre, while Figure 2.44 and Figure 2.45 present the on-street, and overall hourly parking occupancy.

Table 2-44: Cheltenham Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	119	N/A	42%	N/A
7:00	126	N/A	45%	N/A
8:00	130	N/A	46%	N/A
9:00	135	N/A	48%	N/A
10:00	163	N/A	58%	N/A
11:00	158	N/A	56%	N/A
12:00	158	N/A	56%	N/A
13:00	160	N/A	57%	N/A
14:00	165	N/A	58%	N/A
15:00	150	N/A	53%	N/A
16:00	134	N/A	47%	N/A
17:00	132	N/A	47%	N/A
18:00	118	N/A	42%	N/A

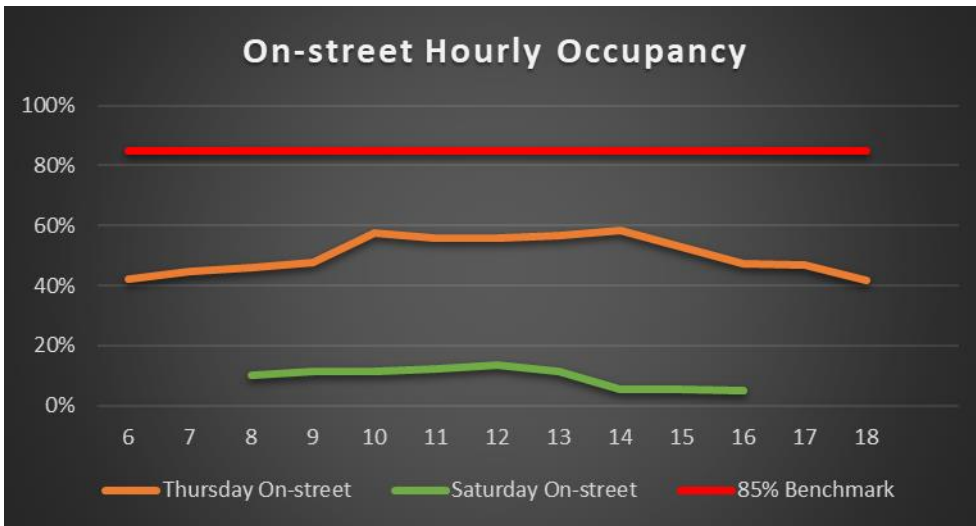


Figure 2.44: On-street hourly occupancy in the Cheltenham Town Centre

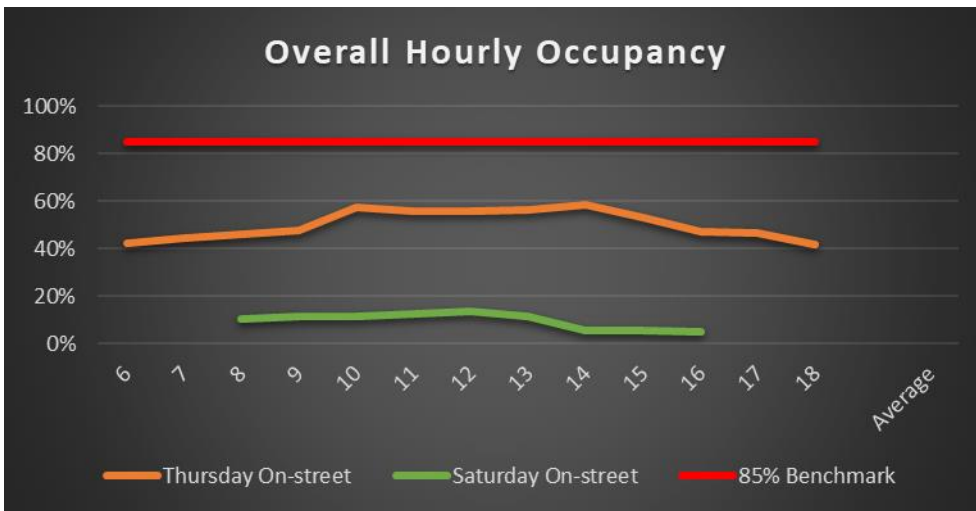


Figure 2.45: Overall Cheltenham Town Centre parking occupancy

Table 2-46 and Table 2-46 present the on-street and off-street, average and peak occupancy for the Cheltenham Town Centre.

Table 2-45: On-street parking capacity and occupancy in the Cheltenham Town Centre

	Thursday	Saturday
Capacity	283	273
Average occupancy	50%	10%
Peak occupancy	58%	14%

Table 2-46: Off-street parking capacity and occupancy in the Cheltenham Town Centre

	Thursday	Saturday
Capacity	6	6
Average occupancy	N/A	N/A
Peak occupancy	N/A	N/A

## 2.5.3 DURATION OF STAY AND TURNOVER

### On-street Duration of Stay and Turnover

Table 2-47 and Figure 2.46 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-47: On-street duration of stay in the Cheltenham Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	73	12%	28	13%
1-2hrs	58	9%	22	10%
2-3hrs	63	10%	24	11%
3-4hrs	96	15%	28	13%
4-5hrs	57	9%	31	14%
5-6hrs	88	14%	16	7%
6-7hrs	65	10%	10	5%
7-8hrs	38	6%	17	8%
8-9hrs	38	6%	40	19%
9-10hrs	15	2%		
10+ hrs	34	5%		
<b>Total</b>	<b>65</b>		<b>62</b>	
Average turnover per bay	1.6		0.6	
Average duration of stay	3.8		1.4	

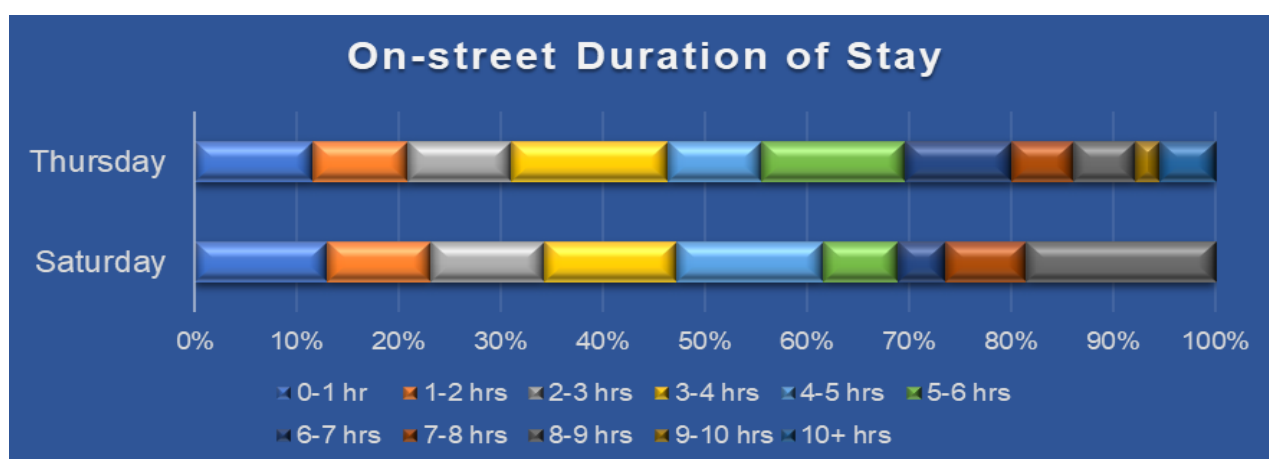


Figure 2.46: On-street duration of stay in the Cheltenham Town Centre

Table 2-48 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-48: Average on-street turnover in the Cheltenham Town Centre

Parking restriction	Average turnover per bay	
	Thursday	Saturday
Time restricted	1.3	0.3
Unrestricted	0.7	0.1

## 2.5.4 FINDINGS

The survey results for the Cheltenham Town Centre revealed the following:

- **There are 113 time-restricted and 721 unrestricted parking bays located within the study area. Of these, 14% are time restricted and 86% unrestricted.**
- **99% of parking supply is on-street, while 1% is off-street.**
- **Peak occupancy on-street is 58% on a Thursday at 2 pm, and, 14% on a Saturday with peak demand occurring from 12 pm to 1 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 1.3 car during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 0.7 car during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 3 hours.**

## 2.5.5 TRIP ORIGIN

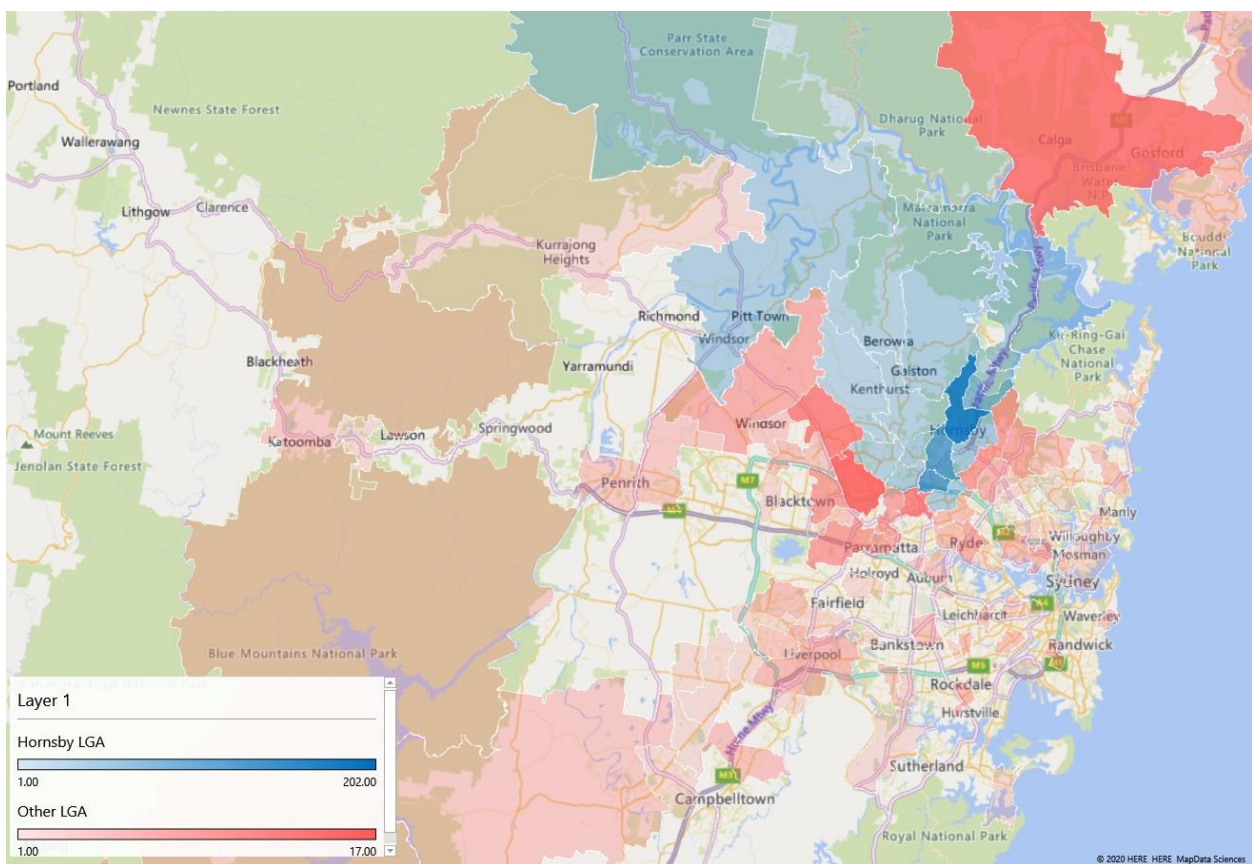


Figure 2.47: Trip origin survey results heat map

The survey results revealed 64.77% of parkers' trip origins in were located within the Hornsby LGA with 35.23% in other surrounding LGA's'.



## 2.6 PENNANT HILLS TOWN CENTRE

The study area for the Beecroft Town Centre is presented in Figure 2.48.

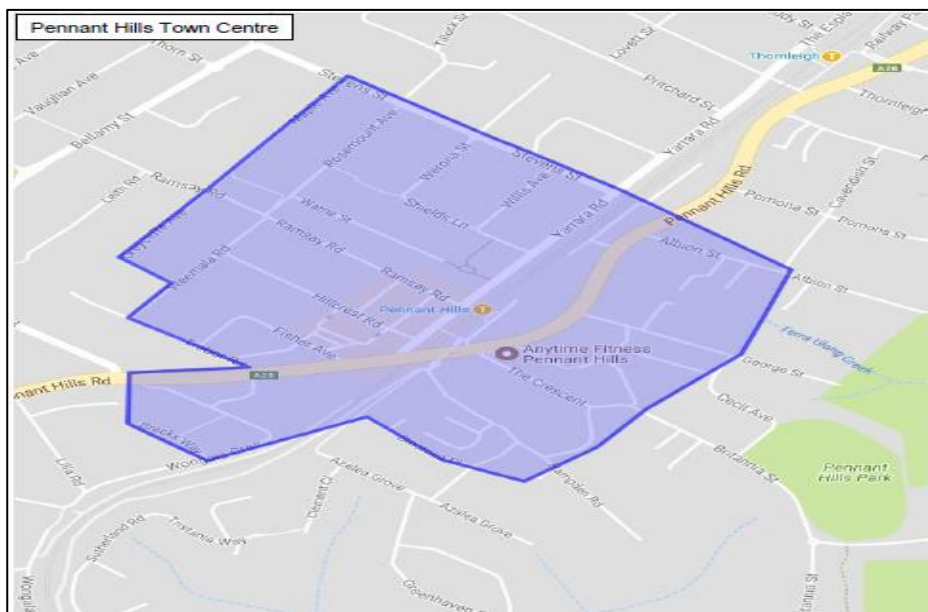


Figure 2.48: Pennant Hills Town Centre survey study area

### 2.6.1 PARKING SUPPLY

The supply survey identified 1462 parking bays on-street and 566 parking bays off-street within the Pennant Hills Town Centre. A summary of the overall on-street and off-street parking supply in the Pennant Hills Town Centre is presented in Table 2-49 and Table 2-50.

Figure 2.49 and Figure 2.50 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-49: On-street parking inventory within the Pennant Hills Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	391	27%
Unrestricted parking	1029	70%
Parking for persons with a disability	1	0%
Taxi zone	5	0%
Loading zone	0	0%
Bus zone	10	1%
Others (ambulance, reserved etc.)	26	2%
Total overall supply	1462	100%

Table 2-50: Off-street parking inventory within the Pennant Hills Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	333	59%
Unrestricted parking	144	25%
Parking for persons with a disability	15	3%
Taxi zone	0	0%
Loading zone	1	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	73	13%
Total overall supply	566	100%

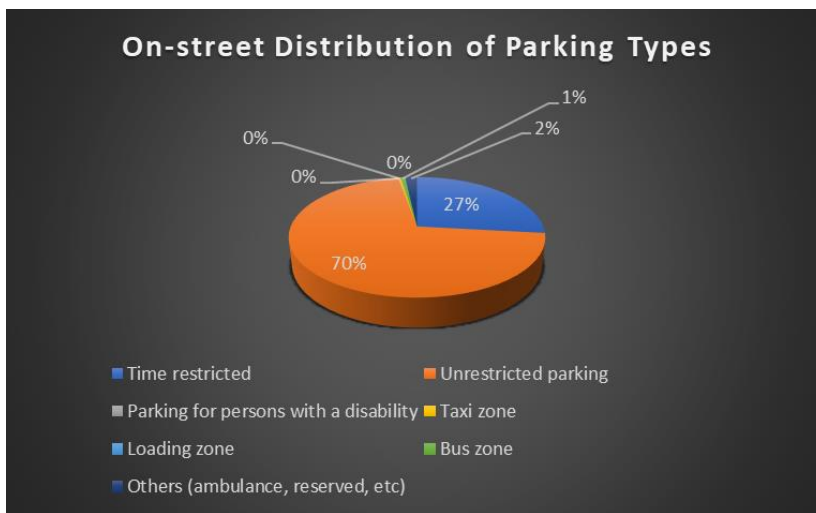


Figure 2.49: Distribution of on-street parking types in the Pennant Hills Town Centre

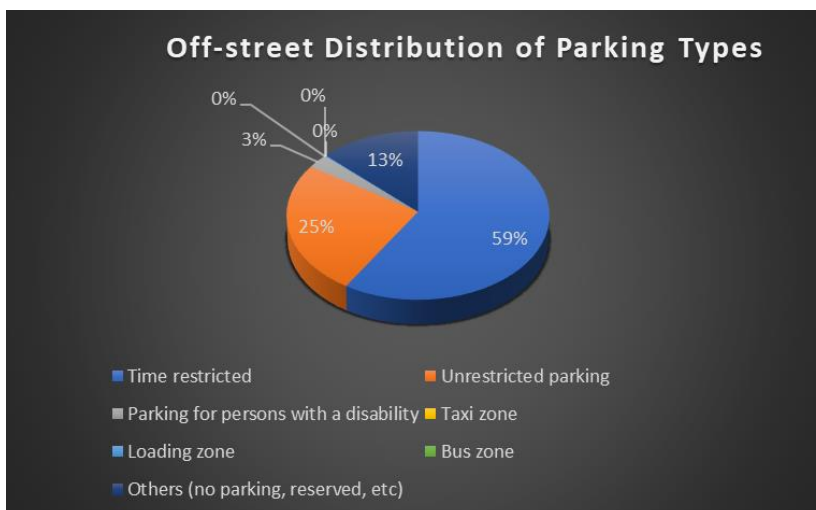


Figure 2.50: Distribution of off-street parking types in the Pennant Hills Town Centre

Table 2-51 presents the breakdown of on-street and off-street parking supply while Figure 2.51 presents the percentage distribution for on-street and off-street parking.

Table 2-51: On-street and off-street parking supply within the Pennant Hills Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	391	21%
Unrestricted parking	1029	54%
<b>Off-street</b>		
Time restricted parking	333	18%
Unrestricted parking	144	8%
<b>Total</b>	<b>1897</b>	<b>100%</b>



Figure 2.51: Distribution of on-street and off-street parking in the Pennant Hills Town Centre

## 2.6.2 DEMAND

Table 2-52 presents the hourly parking occupancy observed at the Pennant Hills Town Centre, while Figure 2.52, Figure 2.53 and Figure 2.54 present the on-street, off-street and overall hourly parking occupancy.

Table 2-52: Pennant Hills Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	386		36%	
7:00	534		50%	
8:00	685	201	65%	19%
9:00	752	283	71%	27%
10:00	866	377	82%	36%
11:00	863	428	82%	40%
12:00	853	521	81%	49%

Time	Occupied bays		% Occupied	
13:00	845	567	80%	54%
14:00	853	579	81%	55%
15:00	755	544	71%	51%
16:00	629	507	59%	48%
17:00	606		57%	
18:00	577		55%	

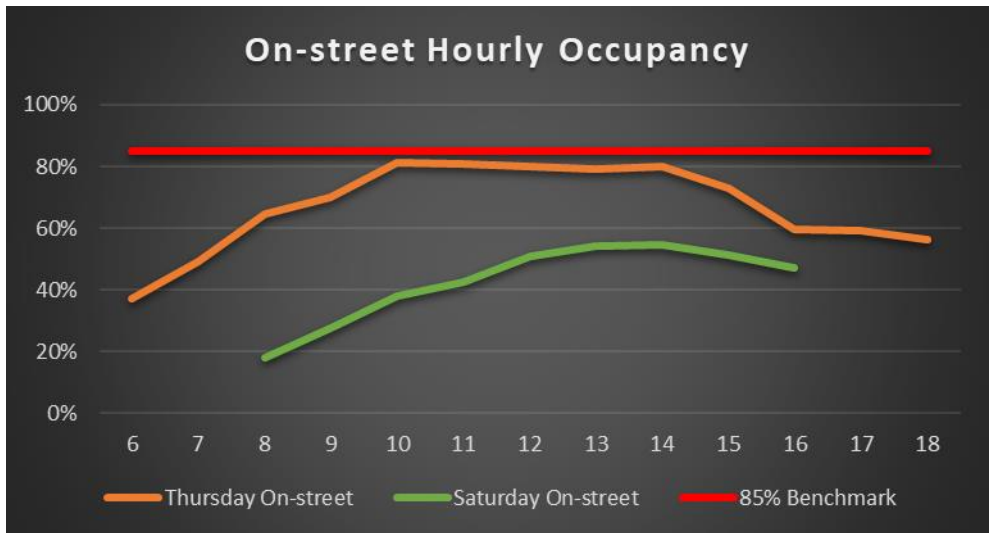


Figure 2.52: On-street hourly occupancy in the Pennant Hills Town Centre

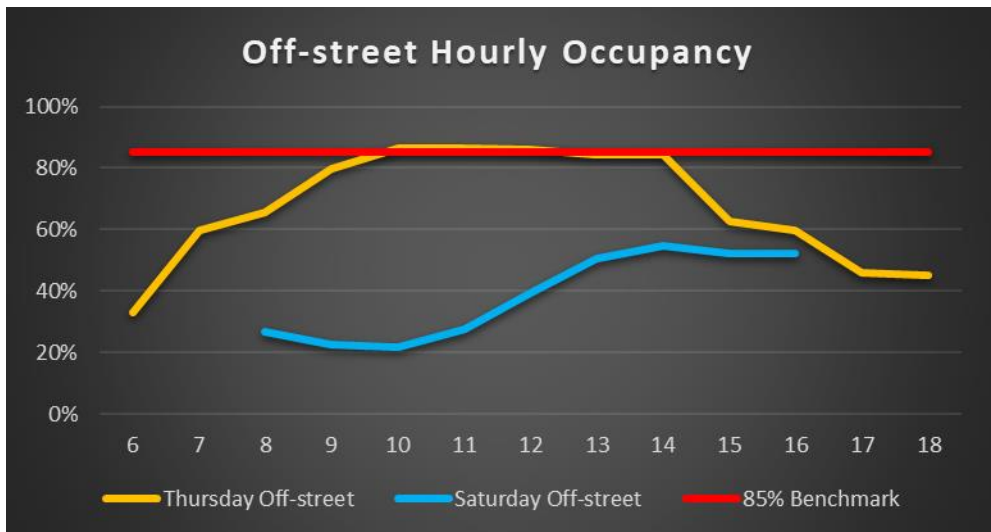


Figure 2.53: Off-street hourly occupancy in the Pennant Hills Town Centre

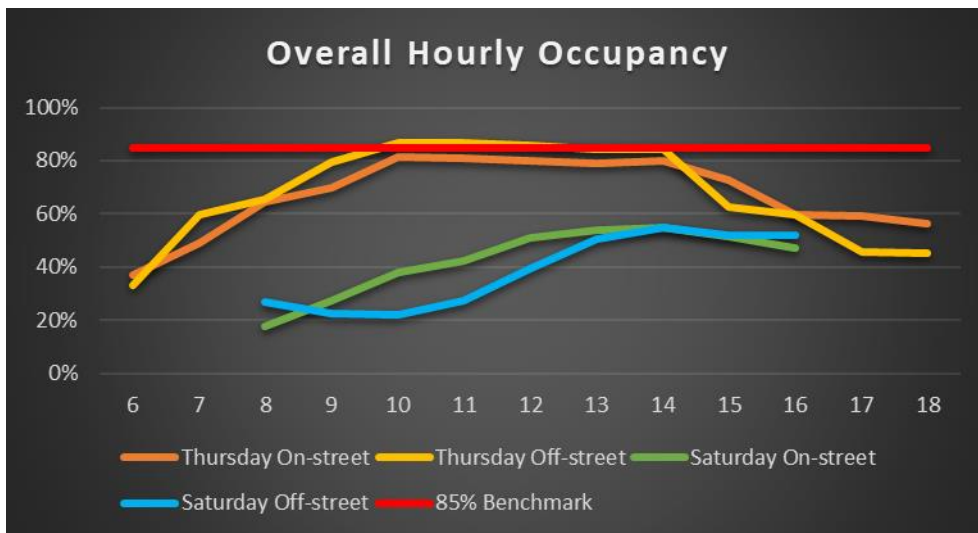


Figure 2.54: Overall Pennant Hills Town Centre parking occupancy

Table 2-53 and Table 2-54 present the on-street and off-street, average and peak occupancy for the Pennant Hills Town Centre.

Table 2-53: On-street parking capacity and occupancy in the Pennant Hills Town Centre

	Thursday	Saturday
Capacity	916	916
Average occupancy	67%	43%
Peak occupancy	81%	55%

Table 2-54: Off-street parking capacity and occupancy in the Pennant Hills Town Centre

	Thursday	Saturday
Capacity	142	142
Average occupancy	68%	39%
Peak occupancy	87%	55%

### 2.6.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-55 and Figure 2.55 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-55: On-street duration of stay in the Pennant Hills Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	991	35%	296	24%
1-2hrs	718	25%	359	29%
2-3hrs	455	16%	233	19%
3-4hrs	246	9%	156	13%
4-5hrs	114	4%	89	7%
5-6hrs	113	4%	36	3%

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
6-7hrs	80	3%	24	2%
7-8hrs	42	1%	13	1%
8-9hrs	35	1%	27	2%
9-10hrs	33	1%		
10+ hrs	32	1%		
Total	2859	100%	1233	100%
Average turnover per bay	2.70		0.8	
Average duration of stay	2.9		1.7	

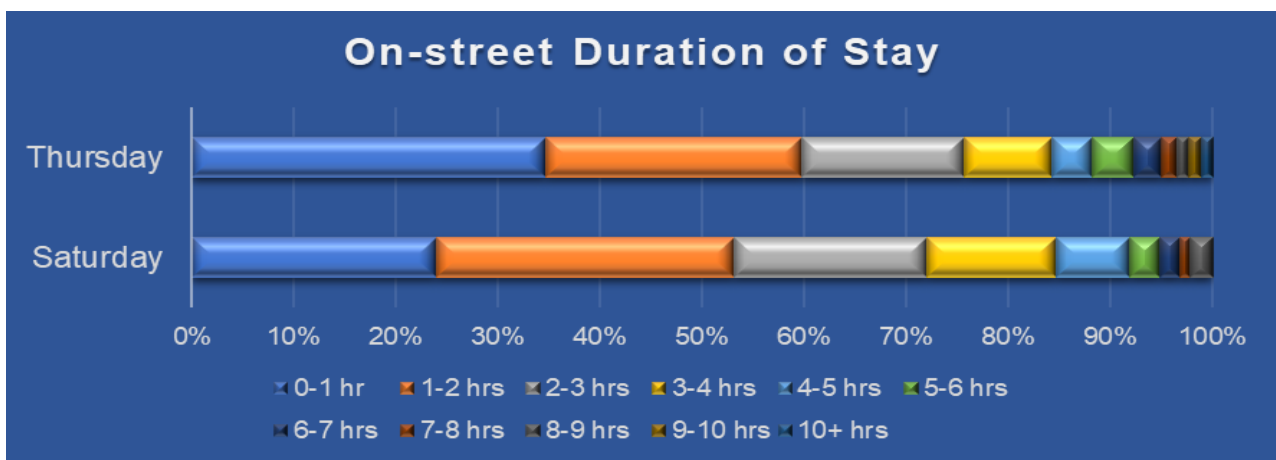


Figure 2.55: On-street duration of stay in the Pennant Hills Town Centre

Table 2-56 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-56: Average on-street turnover in the Pennant Hills Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.4	0.6
Unrestricted	2.8	1

### Off-Street Duration of Stay and Turn Over

Table 2-57 and Figure 2.56 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-57: Off-street duration of stay in the Pennant Hills Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	13	25%	17	15%
1-2hrs	14	28%	7	6%
2-3hrs	25	22%	5	5%
3-4hrs	24	12%	28	25%
4-5hrs	43	3%	28	25%
5-6hrs	30	3%	9	8%
6-7hrs	23	2%	4	4%
7-8hrs	17	1%	3	3%
8-9hrs	11	2%	10	9%
9-10hrs	14	2%		
10+ hrs	9	2%		
Total	223	100%	111	100%
Average turnover per bay	1.20		0.5	
Average duration of stay	3.8		1.4	

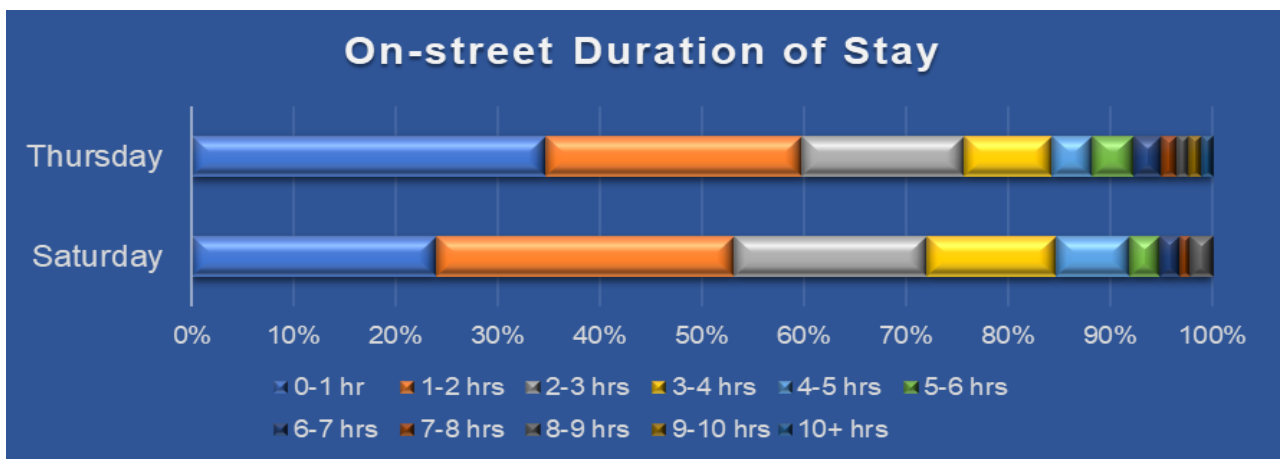


Figure 2.56: Off-street duration of stay in the Pennant Hills Town Centre

Table 2-58 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-58: Average off-street turnover in the Pennant Hills Town Centre

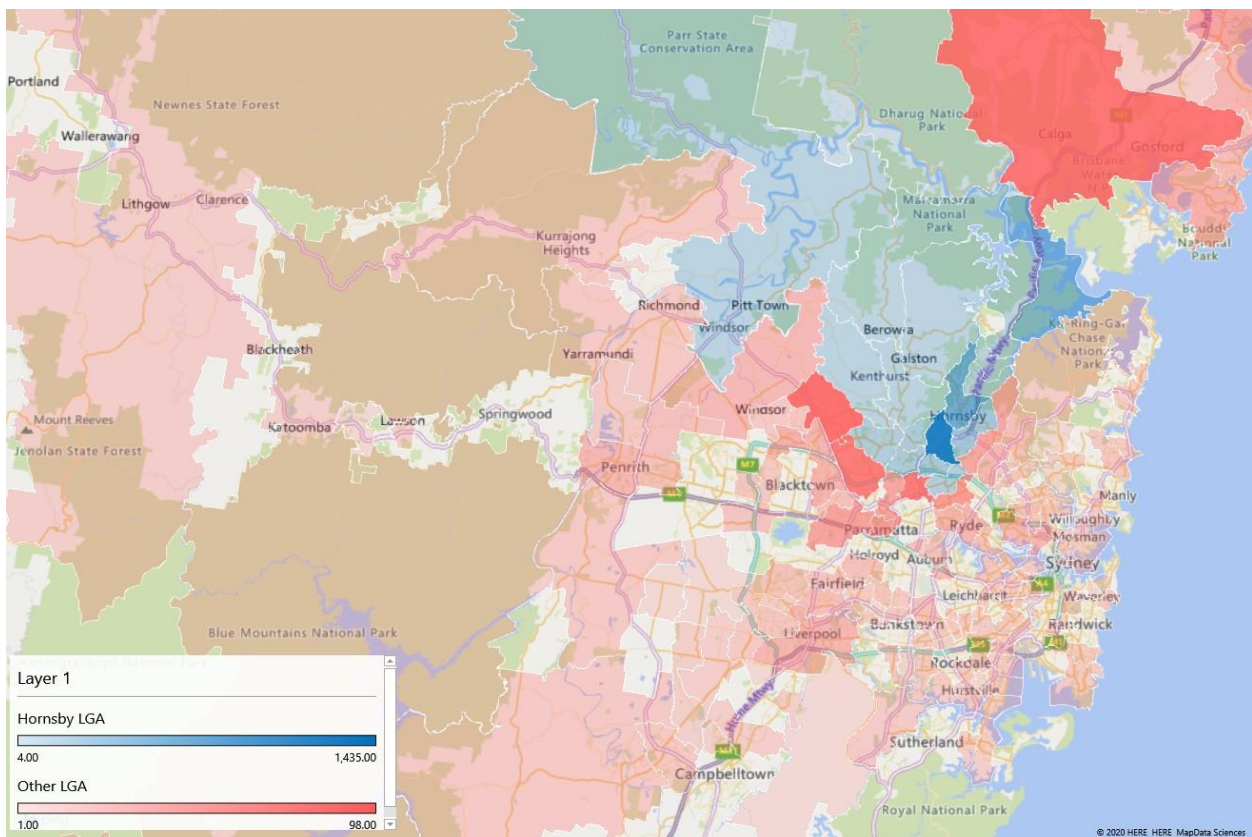
Parking restriction	Average turnover per bay	
	Thursday	Saturday
Time restricted	0.8	0.3
Unrestricted	2	1

## 2.6.4 FINDINGS

The survey results for the Pennant Hills Town Centre revealed the following:

- **There are 2028 parking bays located within the study area. Of these, 38% are time restricted and 62% unrestricted.**
- **75% of parking supply is on-street, while 25% is off-street.**
- **Peak occupancy on-street is 81% on a Thursday at 10 am, and, 55% on a Saturday with peak demand occurring at 2 pm.**
- **Peak occupancy off-street is 87% on a Thursday from 10 am to 12 pm and 55% on a Saturday with peak demand occurring at 2 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 1.4 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 2.8 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 2.9 hours for on-street parking.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **Hampden Road – Trinity Grove end.**
  - **George Street – from Cecil Avenue to Harold Avenue**
  - **The Crescent – from Charlotte Road to Pennant Hills Road**
  - **Yarrara Road**
  - **Pennant Hills Bowling Club Car Park**
  - **Pennant Hills Community Centre**
  - **Pennant Hills Market Place Car Park At Grade**
  - **Train Station Commuter Car Park.**

## 2.6.5 TRIP ORIGIN



The survey results revealed 61.03% of parkers' trip origins in Pennant Hills were located within the Hornsby LGA with 38.97% in other surrounding LGA's'.



## 2.7 THORNLEIGH TOWN CENTRE

The study area for the Thornleigh Town Centre is presented in Figure 2.58.

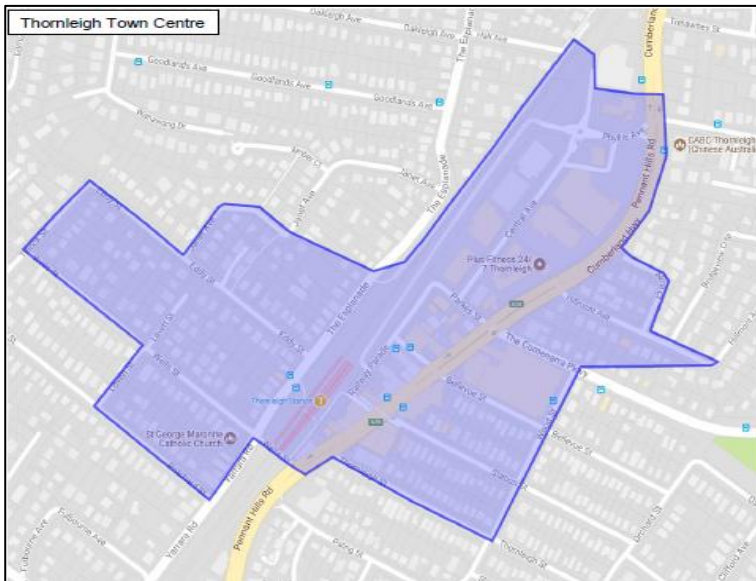


Figure 2.58: Thornleigh Town Centre survey study area

### 2.7.1 PARKING SUPPLY

The supply survey identified 1,030 parking bays on-street and 1,235 parking bays off-street within the Thornleigh Town Centre. A summary of the overall on-street and off-street parking supply in the Thornleigh Town Centre is presented in Table 2-59 and Table 2-60.

Figure 2.59 and Figure 2.60 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-59: On-street parking inventory within the Thornleigh Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	131	13%
Unrestricted parking	698	68%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	201	20%
Total overall supply	1030	100%

Table 2-60: Off-street parking inventory within the Thornleigh Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	50	4%
Unrestricted parking	1102	89%
Parking for persons with a disability	25	2%
Taxi zone	0	0%
Loading zone	15	1%
Bus zone	0	0%
Others (ambulance, reserved etc.)	43	3%
Total overall supply	1235	100%

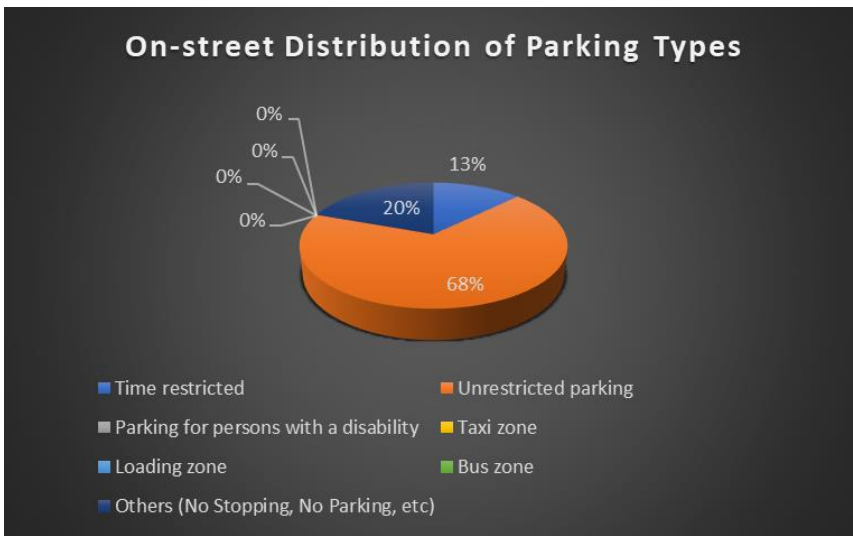


Figure 2.59: Distribution of on-street parking types in the Thornleigh Town Centre

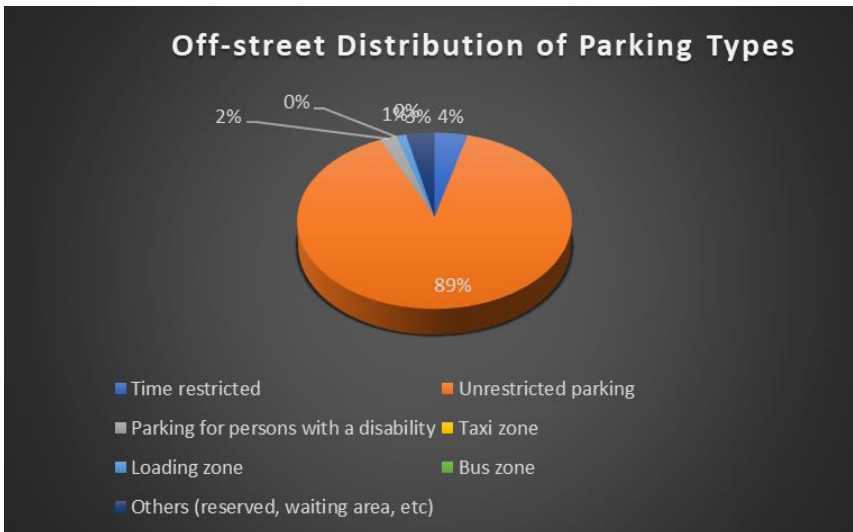


Figure 2.60: Distribution of off-street parking types in the Thornleigh Town Centre

Table 2-61 presents the breakdown of on-street and off-street parking supply while Figure 2.61 presents the percentage distribution for on-street and off-street parking.

Table 2-61: On-street and off-street parking supply within the Thornleigh Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	131	7%
Unrestricted parking	698	35%
<b>Off-street</b>		
Time restricted parking	50	3%
Unrestricted parking	1102	56%
<b>Total</b>	<b>1981</b>	<b>100%</b>



Figure 2.61: Distribution of on-street and off-street parking in the Thornleigh Town Centre

### 2.7.2 DEMAND

Table 2-62 presents the hourly parking occupancy observed at the Thornleigh Town Centre, while Figure 2.62, Figure 2.63 and Figure 2.64 present the on-street, off-street and overall hourly parking occupancy.

Table 2-62: Thornleigh Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	287		30%	
7:00	368		39%	
8:00	516	121	55%	13%
9:00	621	210	66%	22%
10:00	727	341	77%	36%
11:00	725	339	77%	36%
12:00	701	385	74%	41%
13:00	698	357	74%	38%
14:00	689	295	73%	31%
15:00	622	271	66%	29%

Time	Occupied bays		% Occupied	
16:00	560	253	59%	27%
17:00	545		58%	
18:00	525		56%	

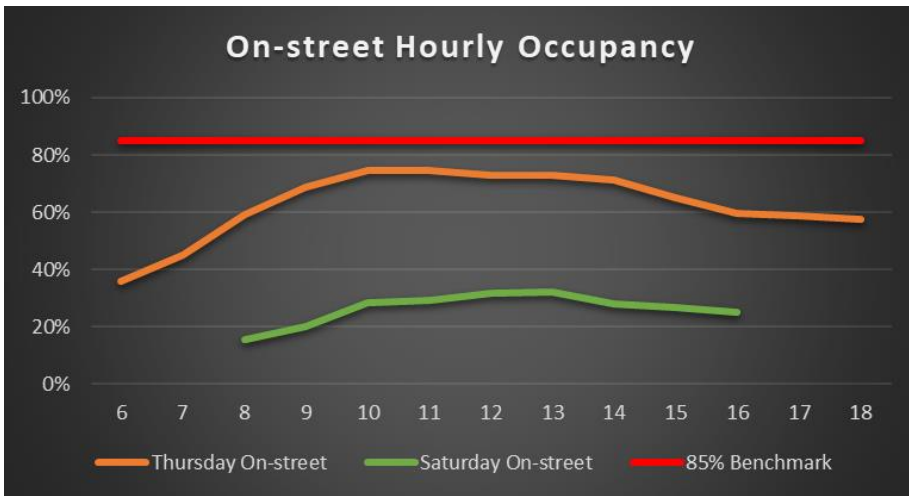


Figure 2.62: On-street hourly occupancy in the Thornleigh Town Centre

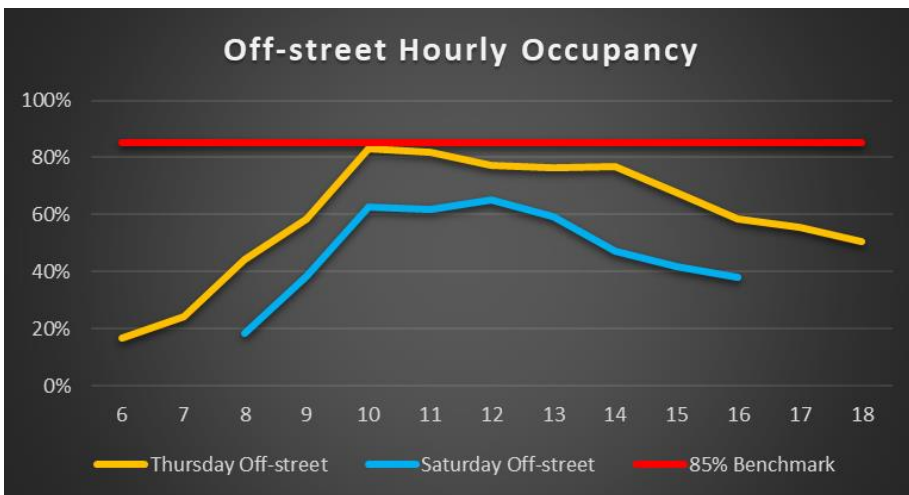


Figure 2.63: Off-street hourly occupancy in the Thornleigh Town Centre

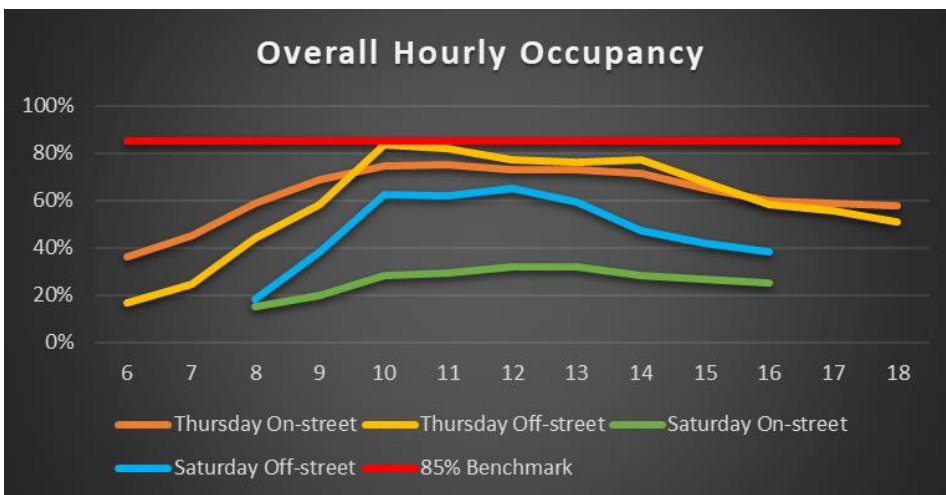


Figure 2.64: Overall Thornleigh Town Centre parking occupancy

Table 2-63 and Table 2-64 present the on-street and off-street, average and peak occupancy for the Thornleigh Town Centre.

*Table 2-63: On-street parking capacity and occupancy in the Thornleigh Town Centre*

	Thursday	Saturday
Capacity	380	380
Average occupancy	39%	25%
Peak occupancy	52%	31%

*Table 2-64: Off-street parking capacity and occupancy in the Thornleigh Town Centre*

	Thursday	Saturday
Capacity	672	672
Average occupancy	69%	53%
Peak occupancy	88%	68%

### 2.7.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-65 and Figure 2.65 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

*Table 2-65: On-street duration of stay in the Thornleigh Town Centre*

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	123	27%	26	14%
1-2hrs	64	14%	24	13%
2-3hrs	40	9%	31	16%
3-4hrs	58	13%	21	11%
4-5hrs	30	6%	12	6%
5-6hrs	36	8%	28	15%
6-7hrs	34	7%	19	10%
7-8hrs	26	6%	13	7%
8-9hrs	17	4%	17	9%
9-10hrs	13	3%		
10+ hrs	21	5%		
Total	462		191	
Average turnover per bay	2.1		0.5	
Average duration of stay	2.3		1.4	

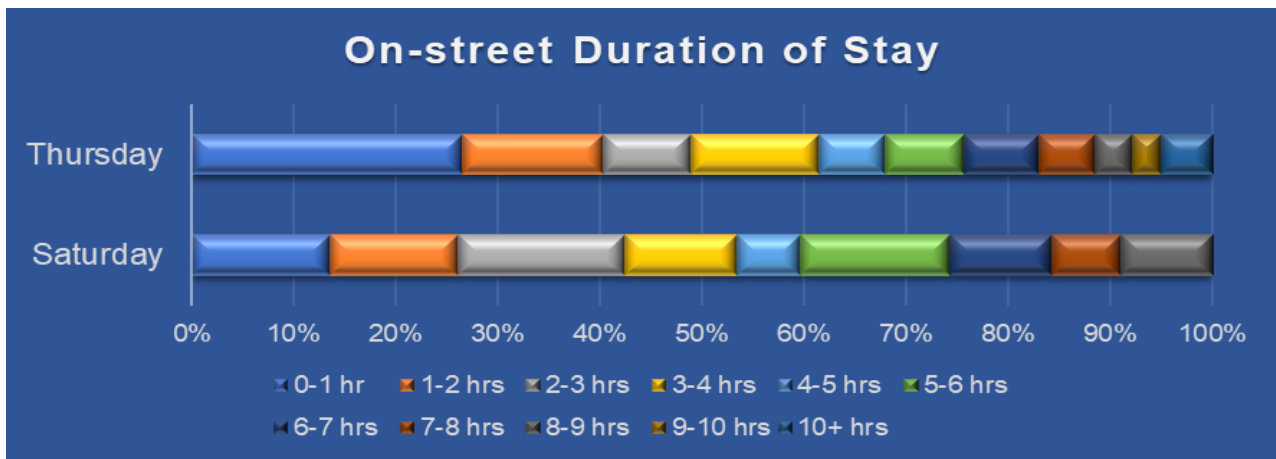


Figure 2.65: On-street duration of stay in the Thornleigh Town Centre

Table 2-67 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-66: Average on-street turnover in the Thornleigh Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.3	0.2
Unrestricted	2.3	0.8

#### Off-Street Duration of Stay and Turn Over

Table 2-67 and Figure 2.66 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-67: Off-street duration of stay in the Thornleigh Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	172	14%	90	13%
1-2hrs	175	15%	80	12%
2-3hrs	125	10%	67	10%
3-4hrs	132	11%	97	15%
4-5hrs	105	9%	78	12%
5-6hrs	139	12%	44	7%
6-7hrs	88	7%	90	13%
7-8hrs	60	5%	49	7%
8-9hrs	56	5%	73	11%
9-10hrs	35	3%		
10+ hrs	108	9%		
Total	1195		668	
Average turnover per bay	1.8		1.1	
Average duration of stay	2.9		2.2	

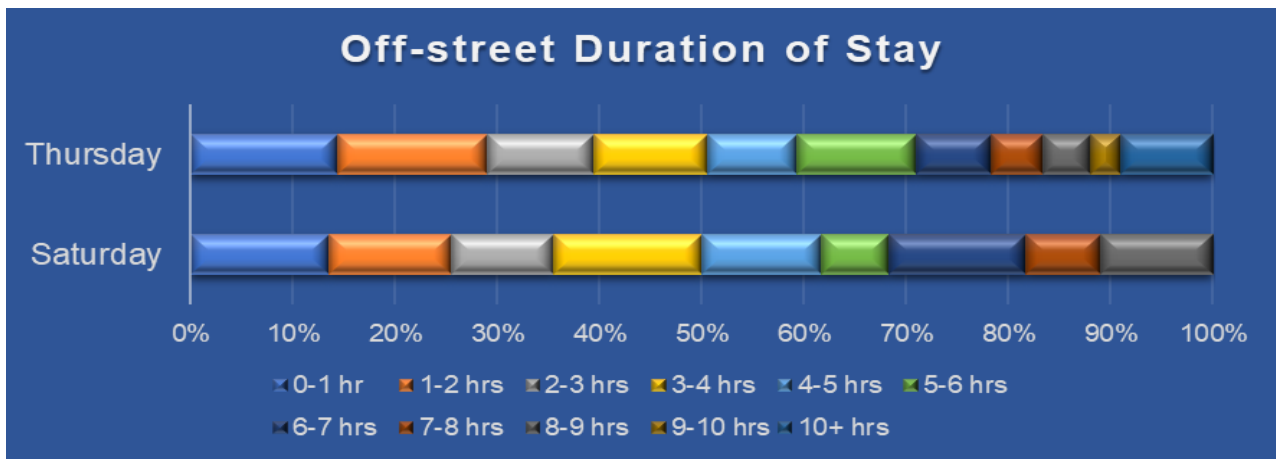


Figure 2.66: Off-street duration of stay in the Thornleigh Town Centre

Table 2-68 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-68: Average off-street turnover in the Thornleigh Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	3.2	0.3
Unrestricted	2.2	1

#### 2.7.4 FINDINGS

The survey results for the Thornleigh Town Centre revealed the following:

- **There are 2265 parking bays located within the study area. Of these, 10% are time restricted and 90% unrestricted.**
- **42% of parking supply is on-street, while 58% is off-street.**
- **Peak occupancy on-street is 52% on a Thursday at 10 am, and, 31% on a Saturday with peak demand occurring at 1 pm.**
- **Peak occupancy off-street is 88% on a Thursday 11 am and 68% on a Saturday with peak demand occurring at 12 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 1.3 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 2.3 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 1.4 hours for on-street parking.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **The Esplanade**
  - **Commuter Car Park (Level 1 – 5)**
  - **Woolworths Car Park.**

## 2.7.5 TRIP ORIGIN

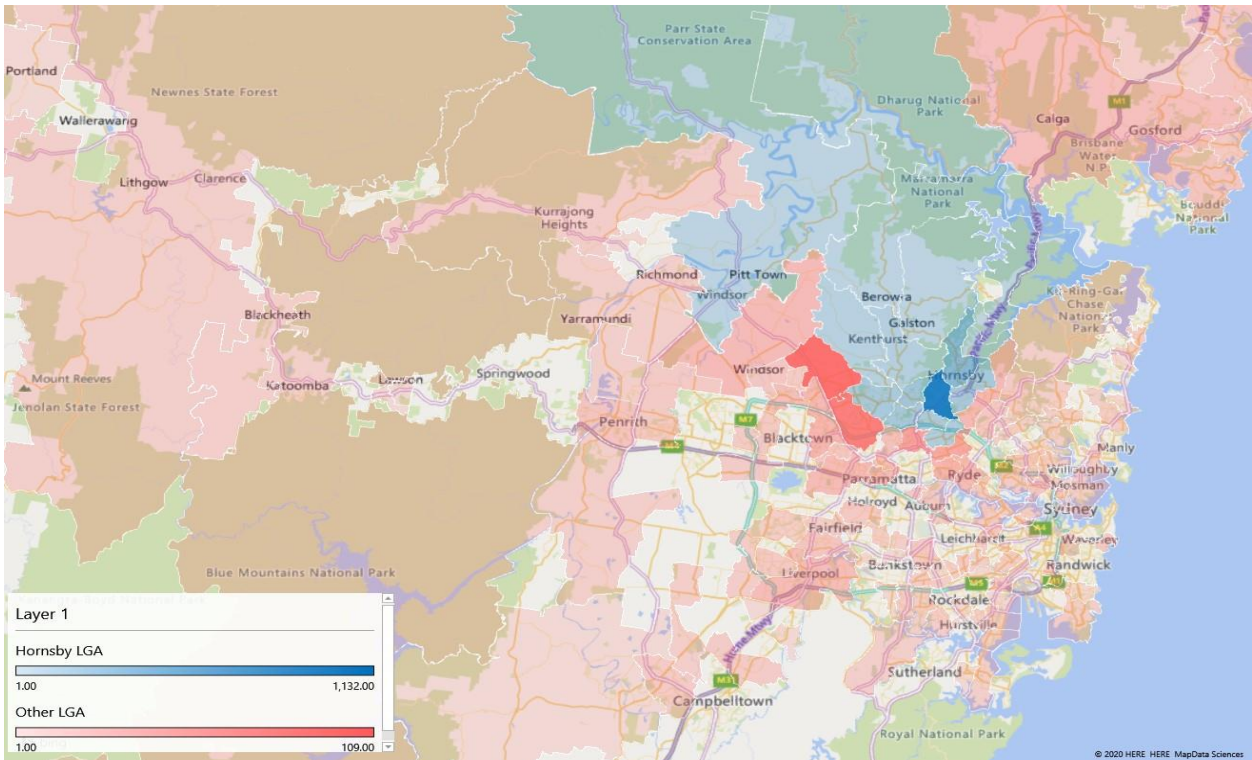


Figure 2.67: Trip origin survey results heat map

The survey results revealed 64.65% of parkers' trip origins in Thornleigh were located within the Hornsby LGA with 35.35% in other surrounding LGA's.



## 2.8 CHERRYBROOK TOWN CENTRE

The study area for the Cherrybrook Town Centre is presented in Figure 2.68.

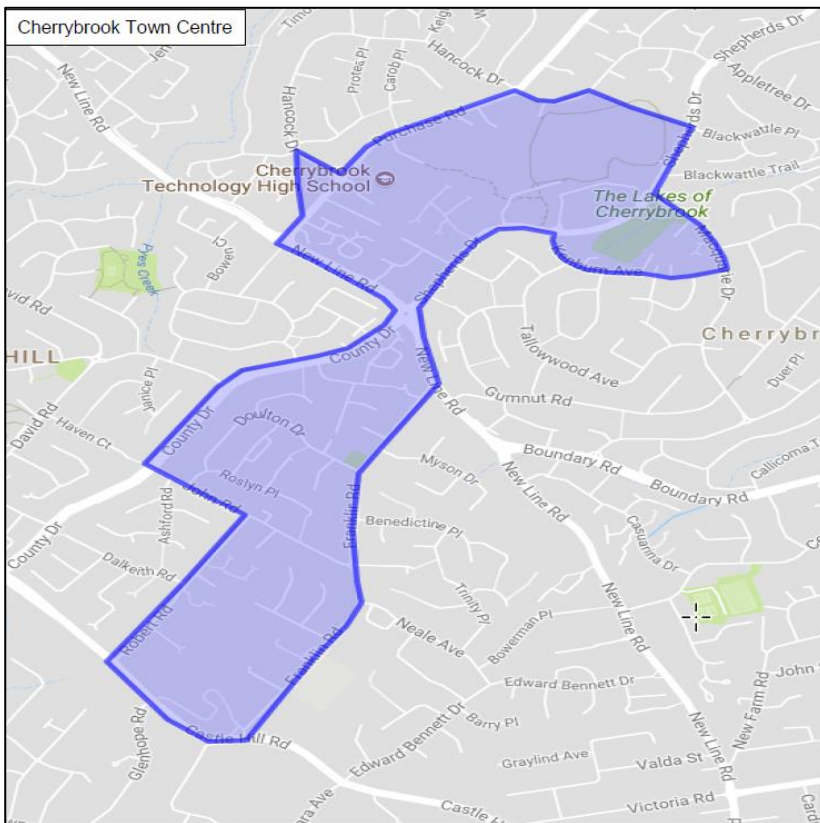


Figure 2.68: Cherrybrook Town Centre survey study area

### 2.8.1 PARKING SUPPLY

The supply survey identified 1831 parking bays on-street and 1142 parking bays off-street within the Cherrybrook Town Centre. A summary of the overall on-street and off-street parking supply in the Cherrybrook Town Centre is presented in Table 2-69 and Table 2-70.

Figure 2.69 and Figure 2.70 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-69: On-street parking inventory within the Cherrybrook Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	232	13%
Unrestricted parking	1471	80%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	4	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	124	7%
Total overall supply	1831	100%

Table 2-70: Off-street parking inventory within the Cherrybrook Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	319	28%
Unrestricted parking	671	59%
Parking for persons with a disability	25	2%
Taxi zone	0	0%
Loading zone	3	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	124	11%
Total overall supply	1142	100%

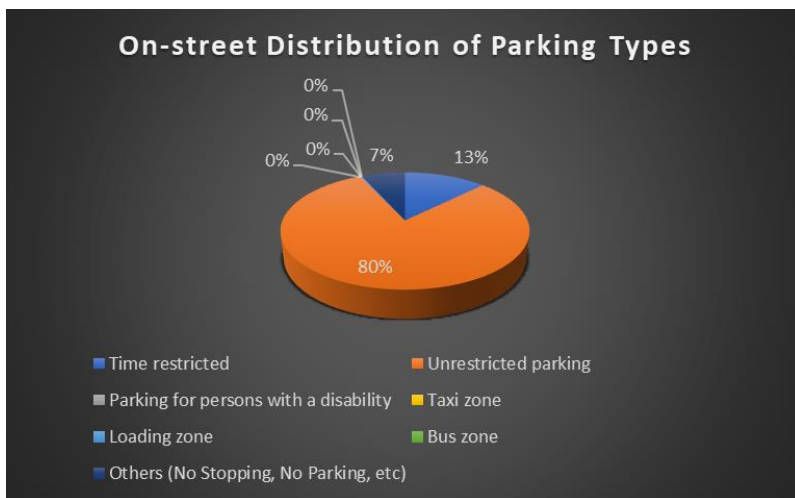


Figure 2.69: Distribution of on-street parking types in the Cherrybrook Town Centre



Figure 2.70: Distribution of off-street parking types in the Cherrybrook Town Centre

Table 2-71 presents the breakdown of on-street and off-street parking supply while Figure 2.71 presents the percentage distribution for on-street and off-street parking.

Table 2-71: On-street and off-street parking supply within the Cherrybrook Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	232	9%
Unrestricted parking	1471	55%
<b>Off-street</b>		
Time restricted parking	319	12%
Unrestricted parking	671	25%
<b>Total</b>	<b>2693</b>	<b>100%</b>



Figure 2.71: Distribution of on-street and off-street parking in the Cherrybrook Town Centre

## 2.8.2 DEMAND

Table 2-72 presents the hourly parking occupancy observed at the Cherrybrook Town Centre, while Figure 2.73 and Figure 2.74 present the on-street, off-street and overall hourly parking occupancy.

Table 2-72: Cherrybrook Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	270		18%	
7:00	587		39%	
8:00	836	774	56%	52%
9:00	876	785	59%	53%
10:00	855	782	57%	52%
11:00	860	776	58%	52%
12:00	852	762	57%	51%
13:00	851	750	57%	50%
14:00	861	742	58%	50%
15:00	856	737	57%	49%
16:00	861	723	58%	49%
17:00	839		56%	
18:00	794		53%	

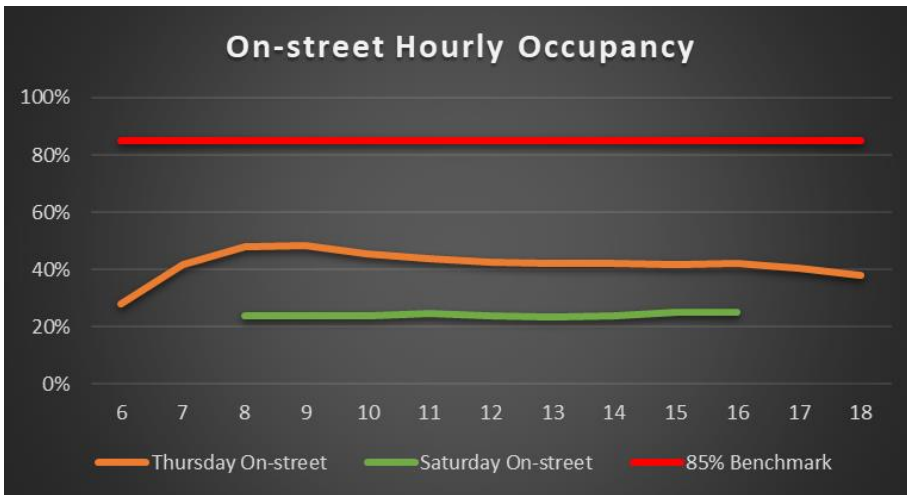


Figure 2.72: On-street hourly occupancy in the Cherrybrook Town Centre

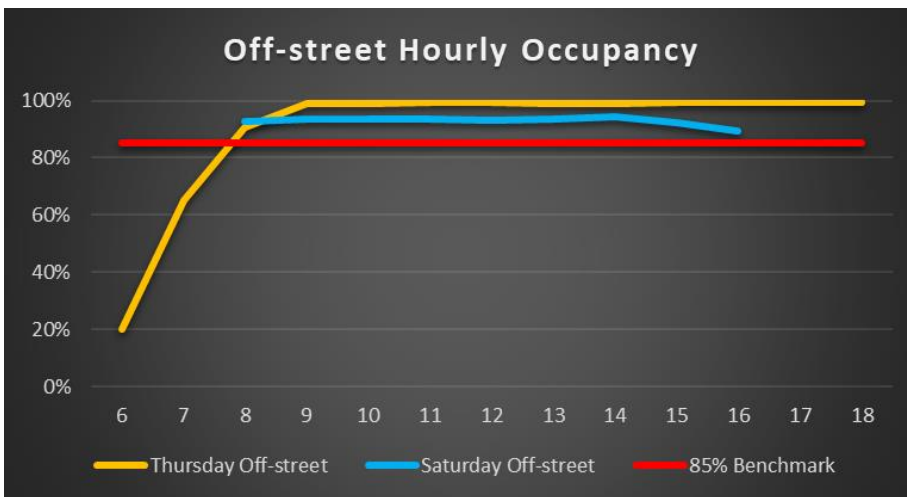


Figure 2.73: Off-street hourly occupancy in the Cherrybrook Town Centre

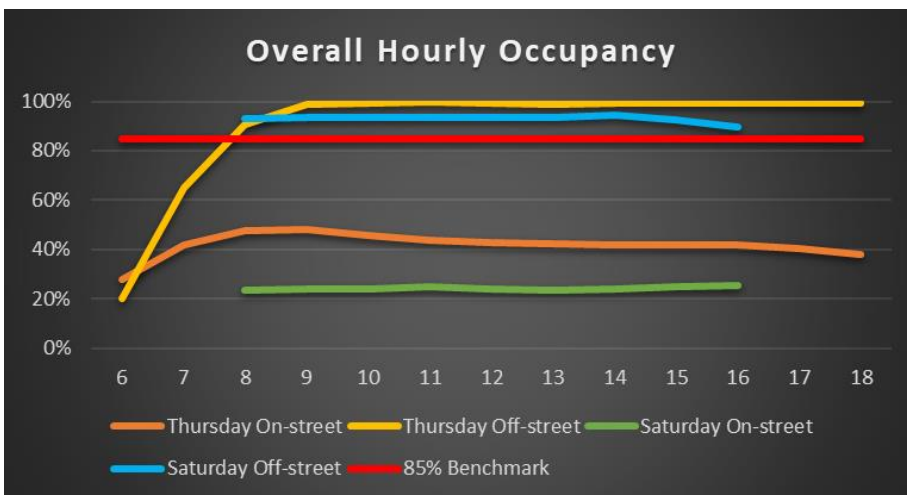


Figure 2.74: Overall Cherrybrook Town Centre parking occupancy

Table 2-73 and Table 2-74 present the on-street and off-street, average and peak occupancy for the Cherrybrook Town Centre.

Table 2-73: On-street parking capacity and occupancy in the Cherrybrook Town Centre

	Thursday	Saturday
Capacity	786	786
Average occupancy	42%	24%
Peak occupancy	48%	25%

Table 2-74: Off-street parking capacity and occupancy in the Cherrybrook Town Centre

	Thursday	Saturday
Capacity	446	446
Average occupancy	90%	93%
Peak occupancy	100%	94%

### 2.8.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-75 and Figure 2.75 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-75: On-street duration of stay in the Cherrybrook Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	85	10%	42	12%
1-2hrs	105	12%	46	13%
2-3hrs	114	13%	41	11%
3-4hrs	132	15%	65	18%
4-5hrs	103	12%	46	13%
5-6hrs	95	11%	25	7%
6-7hrs	64	7%	24	7%
7-8hrs	43	5%	23	6%
8-9hrs	37	4%	51	14%
9-10hrs	27	3%		
10+ hrs	52	6%		
Total	857	100%	363	100%
Average turnover per bay	1.1		0.5	
Average duration of stay	3		1.5	

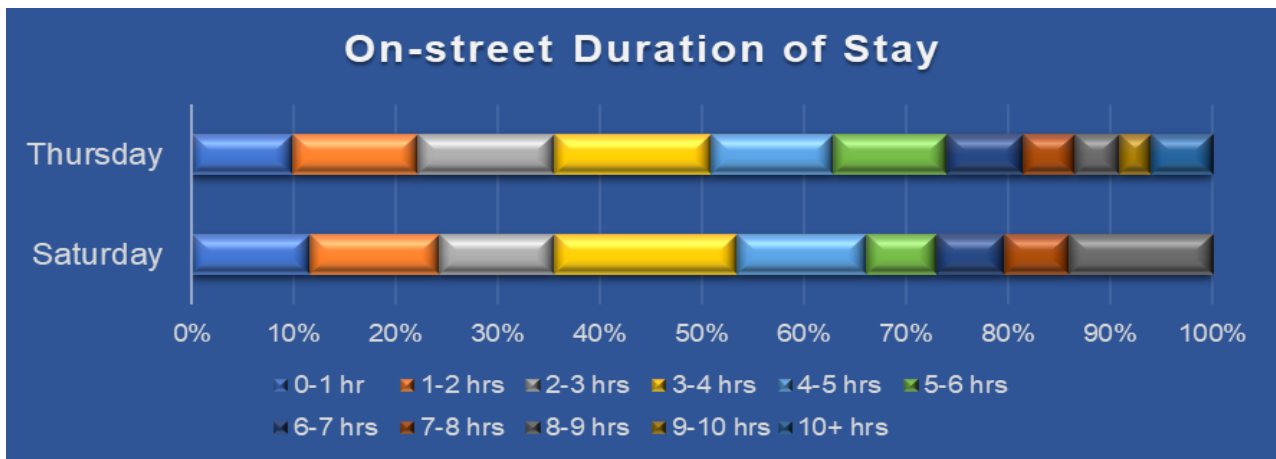


Figure 2.75: On-street duration of stay in the Cherrybrook Town Centre

Table 2-76 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-76: Average on-street turnover in the Cherrybrook Town Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1	0.4
Unrestricted	1.1	0.5

### Off-Street Duration of Stay and Turn Over

Table 2-77 and Figure 2.76 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-77: Off-street duration of stay in the Cherrybrook Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	321	20%	154	22%
1-2hrs	382	24%	179	26%
2-3hrs	357	22%	156	22%
3-4hrs	209	13%	101	14%
4-5hrs	111	7%	50	7%
5-6hrs	73	5%	27	4%
6-7hrs	38	2%	6	1%
7-8hrs	24	2%	8	1%
8-9hrs	22	1%	20	3%
9-10hrs	19	1%		
10+ hrs	32	2%		
Total	1588	100%	701	100%
Average turnover per bay	2.7		1.9	
Average duration of stay	3.1		3.7	

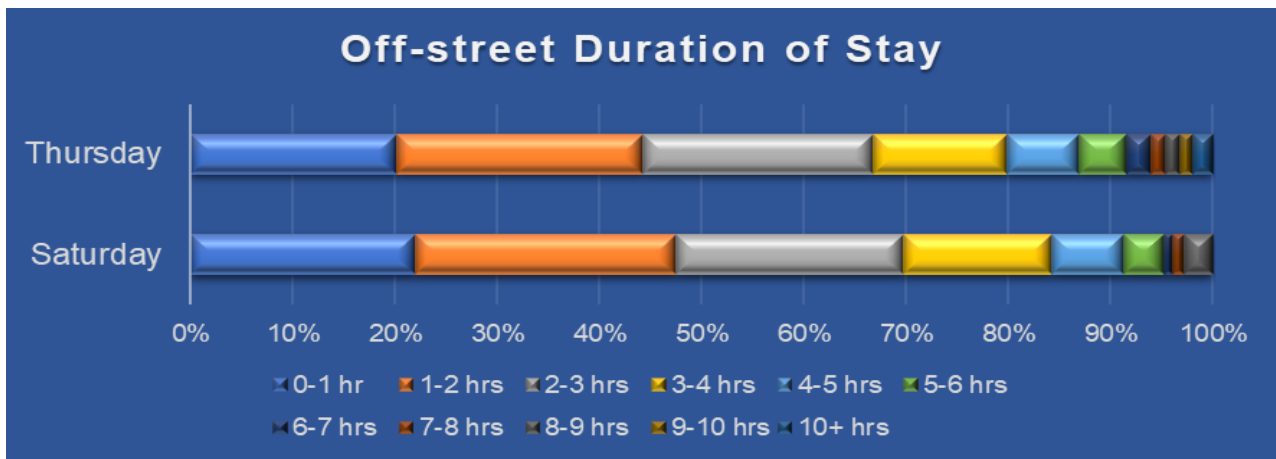


Figure 2.76: Off-street duration of stay in the Cherrybrook

Table 2-78 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-78: Average off-street turnover in the Cherrybrook

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	4.9	1.2
Unrestricted	2.2	1.9

### 2.8.4 FINDINGS

The survey results for the Cherrybrook revealed the following:

- There are 2,973 parking bays located within the study area. Of these, 20% are time restricted and 80% unrestricted.
- 63% of parking supply is on-street, while 37% is off-street.
- Peak occupancy on-street is 48% on a Thursday at 9 am, and, 25% on a Saturday with peak demand occurring at 4 pm.
- Peak occupancy off-street is 100% on a Thursday 11 am and 94% on a Saturday with peak demand occurring at 2 pm.
- The time-restricted areas of on-street parking generate an average turnover of 1 car during the survey on Thursday.
- The unrestricted areas of on-street parking generate an average turnover of 1.1 cars during the survey on Thursday.
- The average length of stay on-street on a Saturday is 1.5 hours for on-street parking.
- The following road segments yielded occupancy rates of higher than 85%:
  - Shepherds Drive
  - Kenburn Avenue
  - Kenburn Avenue – from Tallowood Avenue to Shepherds Drive
  - Purchase Road
  - Tennyson Close – from Purchase Road to Hallam Way
  - Kindalin Early Childhood
  - Carlisle Swimming Centre
  - Forest Glen
  - Cherrybrook Community And Cultural Centre – near John Purchase Oval
  - Cherrybrook Shopping Villa Basement.

## 2.8.5 TRIP ORIGIN

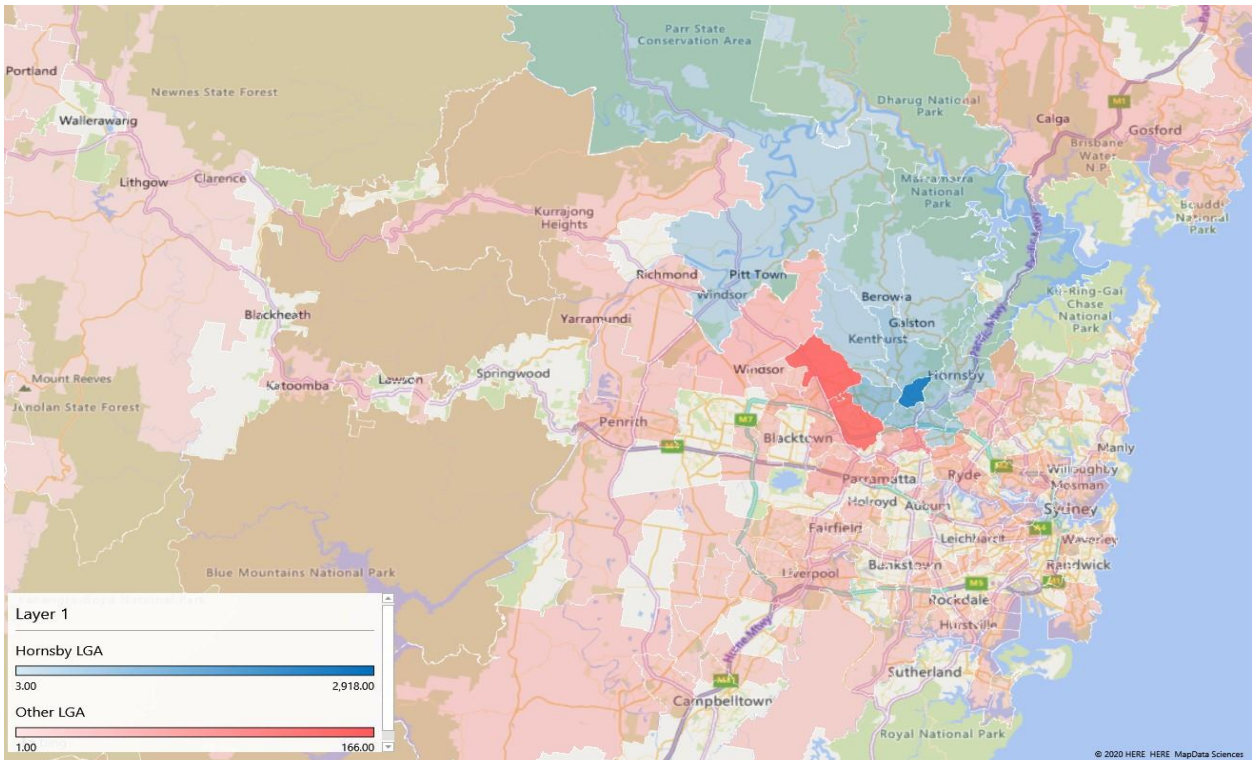


Figure 2.77: Trip origin survey results heat map

The survey results revealed 72.59% of parkers' trip origins in Cherrybrook were located within the Hornsby LGA with 27.41% in other surrounding LGA's.



## 2.9 NORMANHURST TOWN CENTRE

The study area for the Normanhurst Town Centre is presented in Figure 2.78.

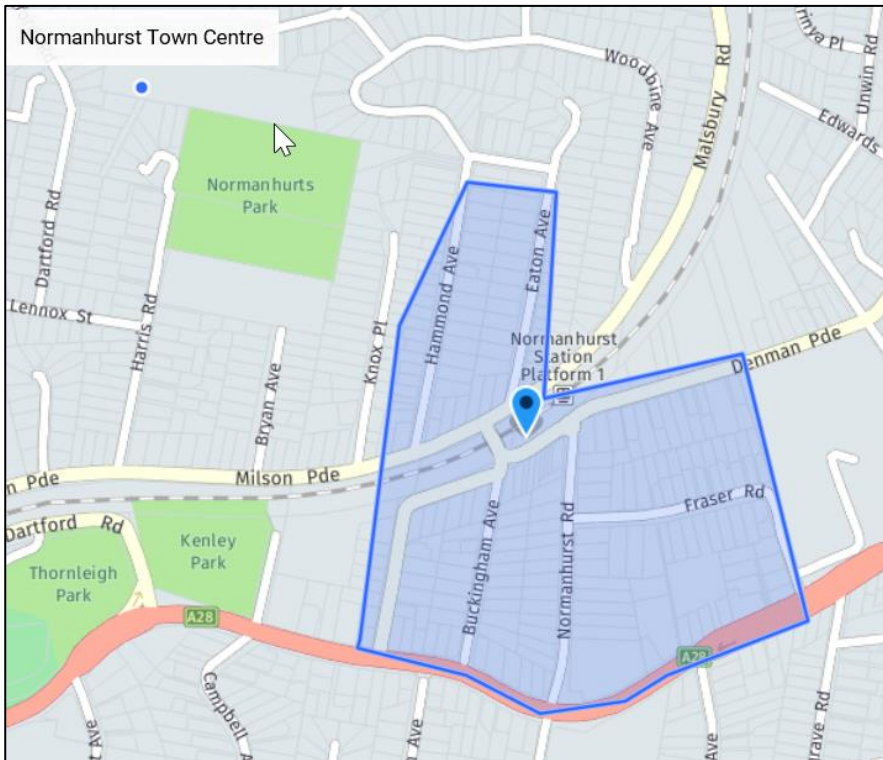


Figure 2.78: Normanhurst Town Centre survey study area

### 2.9.1 PARKING SUPPLY

The supply survey identified 659 parking bays on-street and no parking bays off-street within the Normanhurst Town Centre. A summary of the overall on-street supply in the Normanhurst Town Centre is presented in Table 2-79 and no summary is provided for off-street parking in Normanhurst survey.

Figure 2.79 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-79: On-street parking inventory within the Normanhurst Town Centre

Parking type	Parking bays	% of total
Time-restricted parking	37	6%
Unrestricted parking	582	88%
Parking for persons with a disability	0	0%
Taxi zone	2	0%
Loading zone	0	0%
Bus zone	14	2%
Others (ambulance, reserved etc.)	24	4%
Total overall supply	659	100%

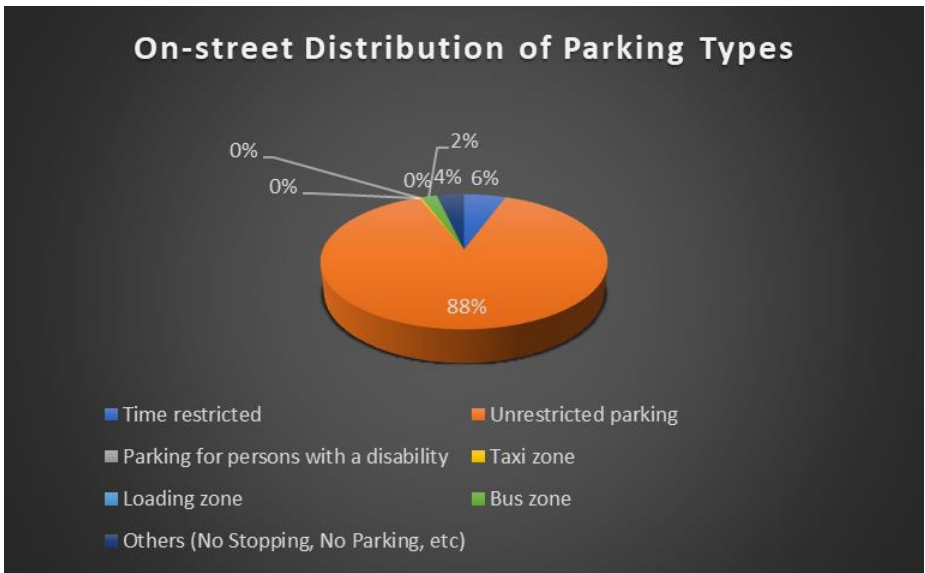


Figure 2.79: Distribution of on-street parking types in the Normanhurst Town Centre

Table 2-80 presents the breakdown of on-street and off-street parking supply while Figure 2.80 presents the percentage distribution for on-street and off-street parking.

Table 2-80: On-street and off-street parking supply within the Normanhurst Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	37	6%
Unrestricted parking	587	94%
<b>Off-street</b>		
Time restricted parking	0	0%
Unrestricted parking	0	0%
<b>Total</b>	<b>624</b>	<b>100%</b>



Figure 2.80: Distribution of on-street and off-street parking in the Normanhurst Town Centre

## 2.9.2 DEMAND

Table 2-81 presents the hourly parking occupancy observed at the Normanhurst Town Centre, while Figure 2.81 present the on-street hourly parking occupancy.

Table 2-81: Normanhurst Town Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	132		39%	
7:00	156		46%	
8:00	165	57	49%	17%
9:00	167	64	50%	19%
10:00	184	66	55%	20%
11:00	185	57	55%	17%
12:00	187	61	56%	18%
13:00	184	63	55%	19%
14:00	182	76	54%	23%
15:00	150	75	45%	22%
16:00	128	69	38%	21%
17:00	121		36%	
18:00	114		34%	

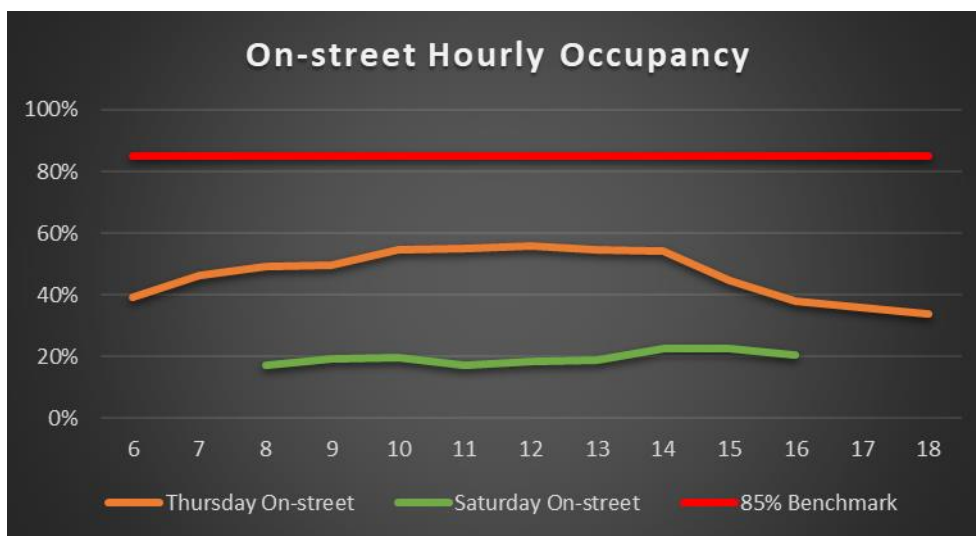


Figure 2.81: On-street hourly occupancy in the Normanhurst Town Centre

Table 2-82 presents the on-street average and peak occupancy for the Normanhurst Town Centre.

Table 2-82: On-street parking capacity and occupancy in the Normanhurst Town Centre

	Thursday	Saturday
Capacity	336	336
Average occupancy	47%	19%
Peak occupancy	56%	23%

## 2.9.3 DURATION OF STAY AND TURNOVER

### On-street Duration of Stay and Turnover

Table 2-83 and Figure 2.82 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-83: On-street duration of stay in the Normanhurst Town Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	65	15%	23	17%
1-2hrs	66	15%	22	16%
2-3hrs	67	15%	25	18%
3-4hrs	46	10%	17	12%
4-5hrs	45	10%	11	8%
5-6hrs	47	11%	9	6%
6-7hrs	41	9%	6	4%
7-8hrs	21	5%	7	5%
8-9hrs	18	4%	19	14%
9-10hrs	13	3%		
10+ hrs	18	4%		
Total	447	100%	139	100%
Average turnover per bay	1.60		0.4	
Average duration of stay	3.2		0.9	

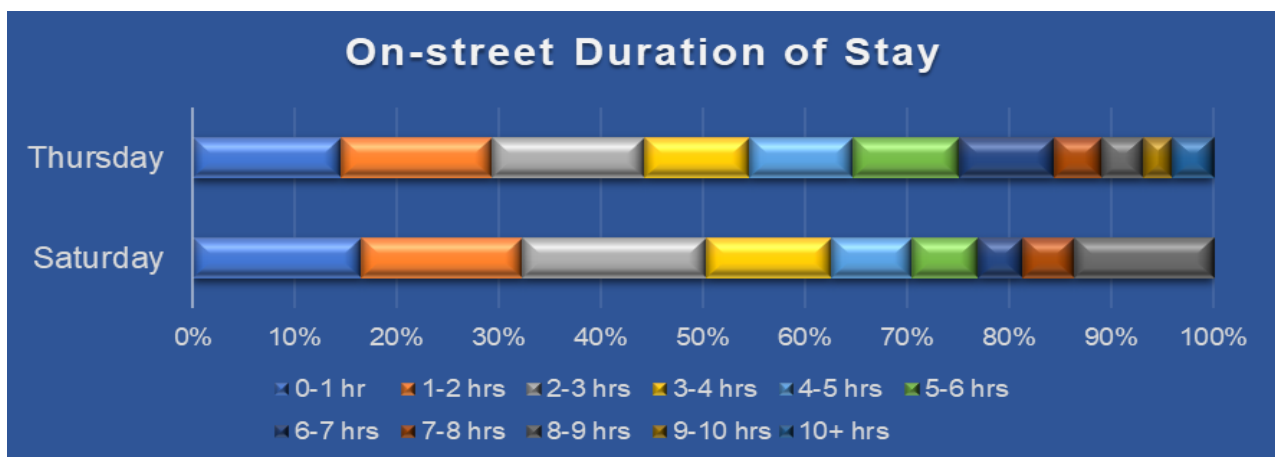


Figure 2.82: On-street duration of stay in the Normanhurst Town Centre

Table 2-84 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-84: Average on-street turnover in the Normanhurst Town Centre

Parking restriction	Average turnover per bay	
	Thursday	Saturday
Time restricted	0.6	0.5
Unrestricted	2	0.3

## 2.9.4 FINDINGS

The survey results for the Cherrybrook revealed the following:

- **There are 2973 parking bays located within the study area. Of these, 20% are time restricted and 80% unrestricted.**
- **There are 659 parking bays located within the study area. Of these, 6% are time restricted and 94% unrestricted.**
- **100% of parking supply is on-street parking.**
- **Peak occupancy on-street is 56% on a Thursday at 12 pm, and, 23% on a Saturday with peak demand occurring at 2 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 0.6 car during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 2 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 0.9 hour for on-street parking.**

## 2.9.5 TRIP ORIGIN

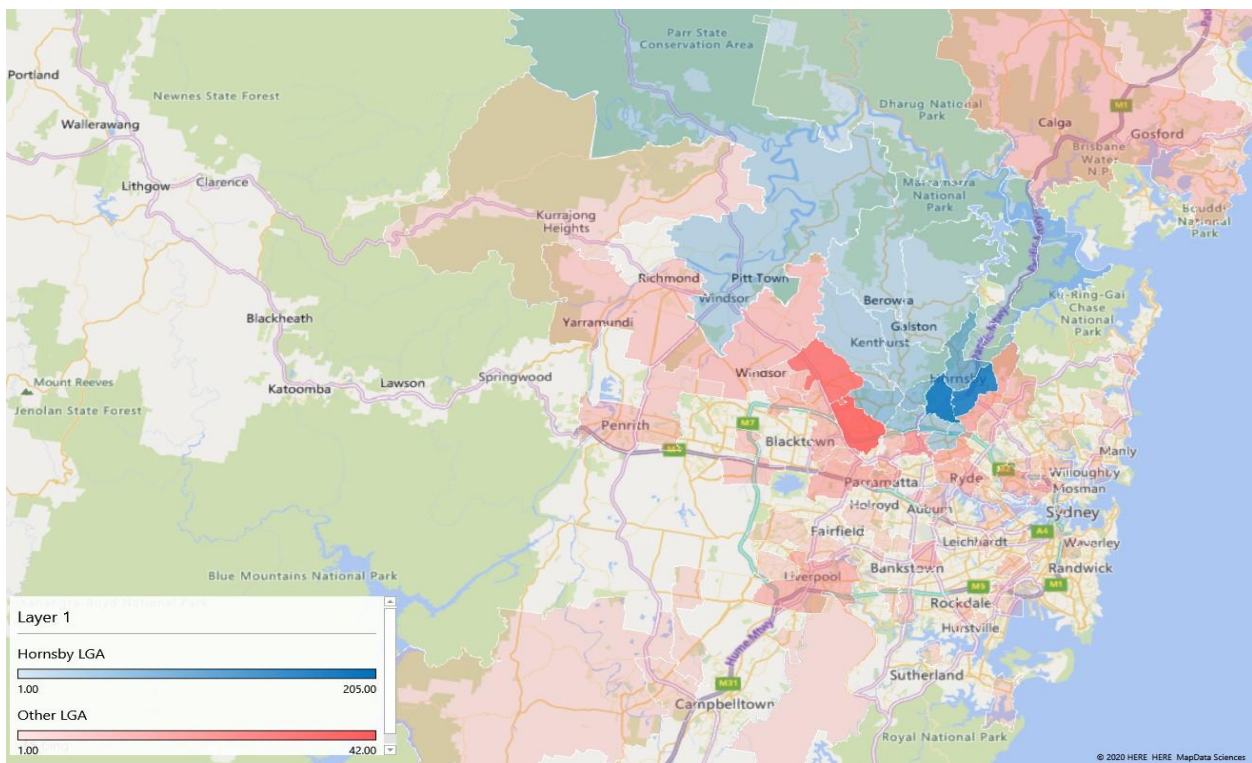


Figure 2.83: Trip origin survey results heat map

The survey results revealed 61.06% of parkers' trip origins in Normanhurst were located within the Hornsby LGA with 38.94% in other surrounding LGA's'.

## 2.10 CHERRYBROOK METRO PRECINCT

The study area for the Cherrybrook Metro Precinct is presented in Figure 2.84.

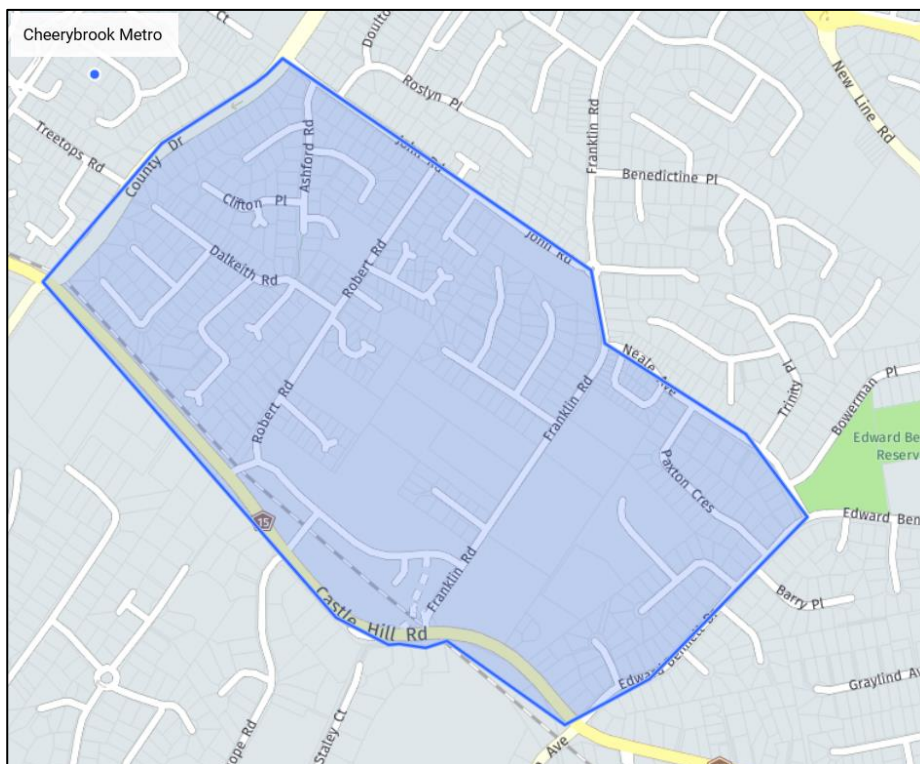


Figure 2.84: Cherrybrook Metro Precinct survey study area

### 2.10.1 PARKING SUPPLY

The supply survey identified 1,133 parking bays on-street and 570 parking bays off-street within the Cherrybrook Metro Precinct. A summary of the overall on-street and off-street parking supply in the Cherrybrook Metro Precinct is presented in Table 2-85 and Table 2-86.

Figure 2.85 and Figure 2.86 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-85: On-street parking inventory within the Cherrybrook Metro Precinct

Parking type	Parking bays	% of total
Time-restricted parking	333	29%
Unrestricted parking	706	62%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	4	0%
Bus zone	8	1%
Others (ambulance, reserved etc.)	82	7%
Total overall supply	1133	100%

Table 2-86: Off-street parking inventory within the Cherrybrook Metro Precinct

Parking type	Parking bays	% of total
Time-restricted parking	319	28%
Unrestricted parking	671	59%
Parking for persons with a disability	25	2%
Taxi zone	0	0%
Loading zone	3	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	124	11%
Total overall supply	1142	100%

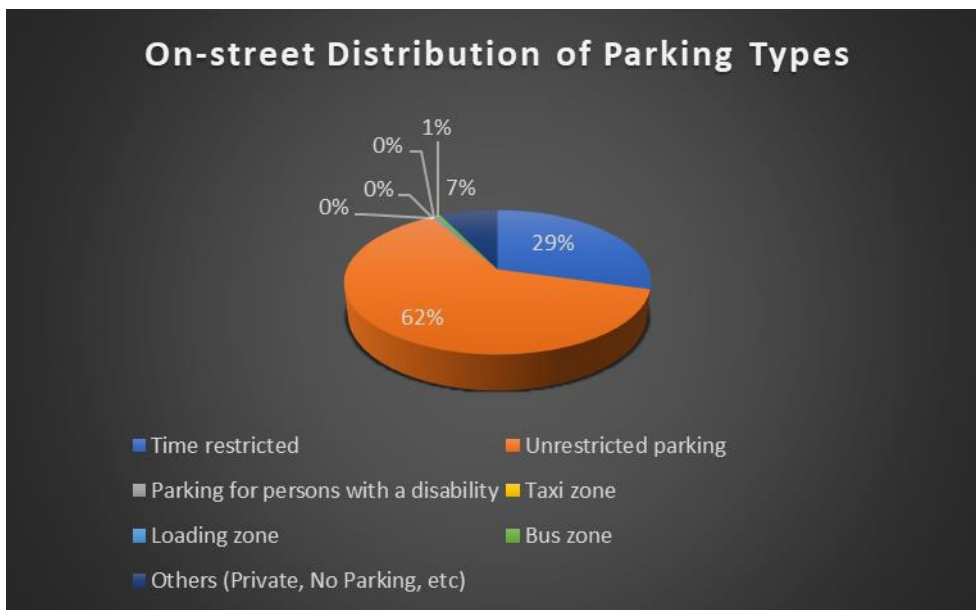


Figure 2.85: Distribution of on-street parking types in the Cherrybrook Metro Precinct

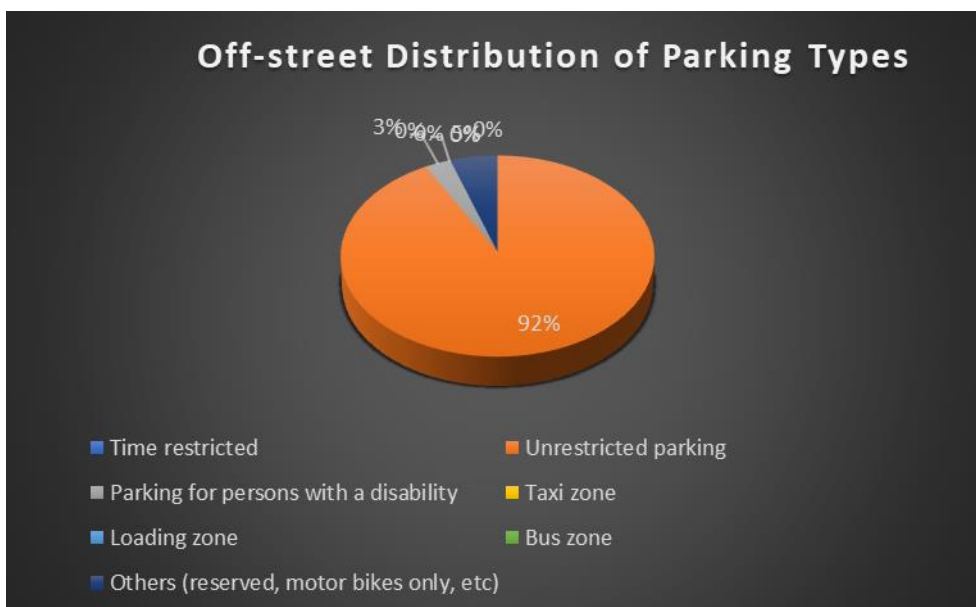


Figure 2.86: Distribution of off-street parking types in the Cherrybrook Metro Precinct

Table 2-87 presents the breakdown of on-street and off-street parking supply while Figure 2.87 presents the percentage distribution for on-street and off-street parking.

Table 2-87: On-street and off-street parking supply within the Cherrybrook Metro Precinct

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	333	21%
Unrestricted parking	706	45%
<b>Off-street</b>		
Time restricted parking	0	0%
Unrestricted parking	525	34%
<b>Total</b>	<b>1564</b>	<b>100%</b>



Figure 2.87: Distribution of on-street and off-street parking in the Cherrybrook Metro Precinct

### 2.10.2 DEMAND

Table 2-88 presents the hourly parking occupancy observed at the Cherrybrook Metro Precinct, while Figure 2.88, Figure 2.89 and Figure 2.90 present the on-street, off-street and overall hourly parking occupancy.

Table 2-88: Cherrybrook Metro Precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
6:00	371		22%	
7:00	719		42%	
8:00	1010	74	59%	14%
9:00	984	76	58%	14%
10:00	982	84	58%	16%
11:00	981	81	58%	15%
12:00	981	82	58%	15%



Time	Occupied bays		% Occupied	
13:00	973	78	57%	15%
14:00	972	82	57%	15%
15:00	947	76	56%	14%
16:00	937	73	55%	14%
17:00	917		54%	
18:00	892		52%	

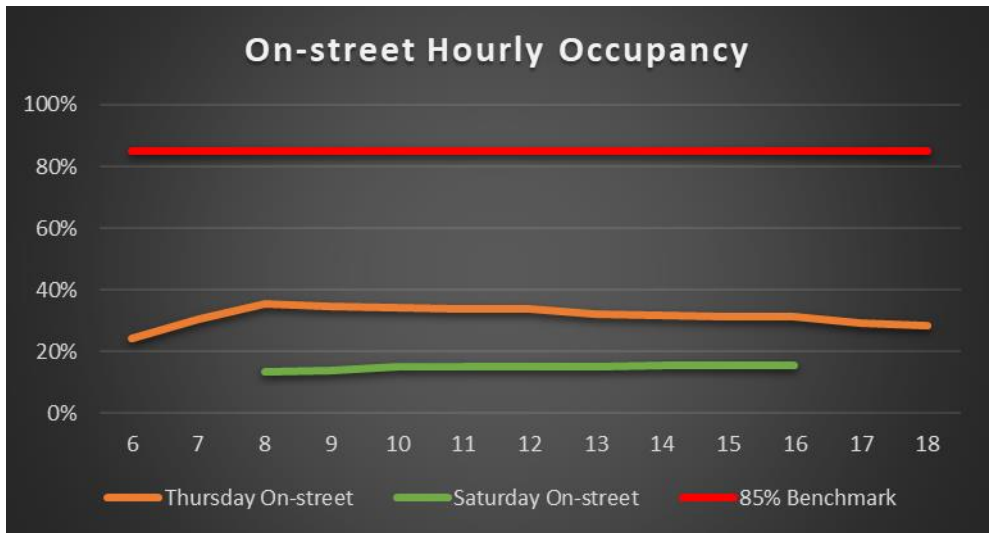


Figure 2.88: On-street hourly occupancy in the Cherrybrook Metro Precinct

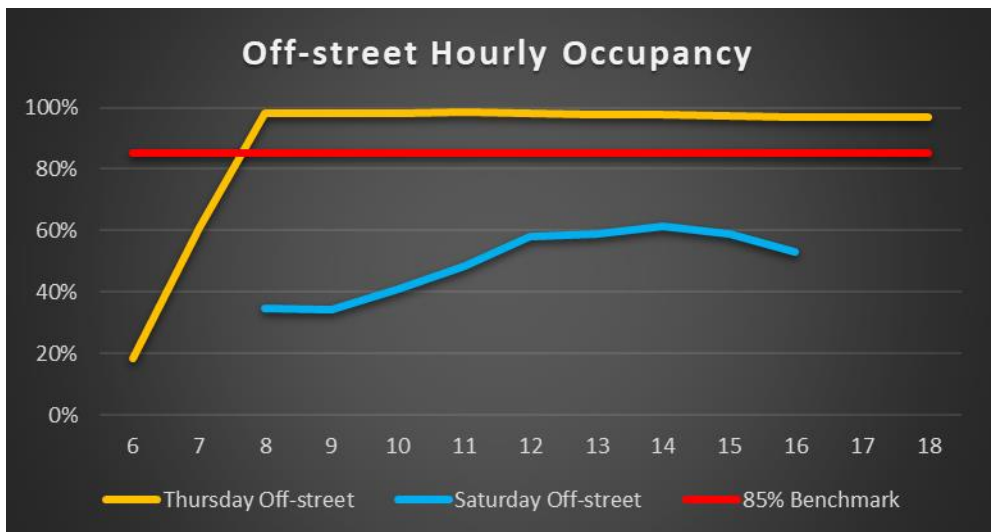


Figure 2.89: Off-street hourly occupancy in the Cherrybrook Metro Precinct

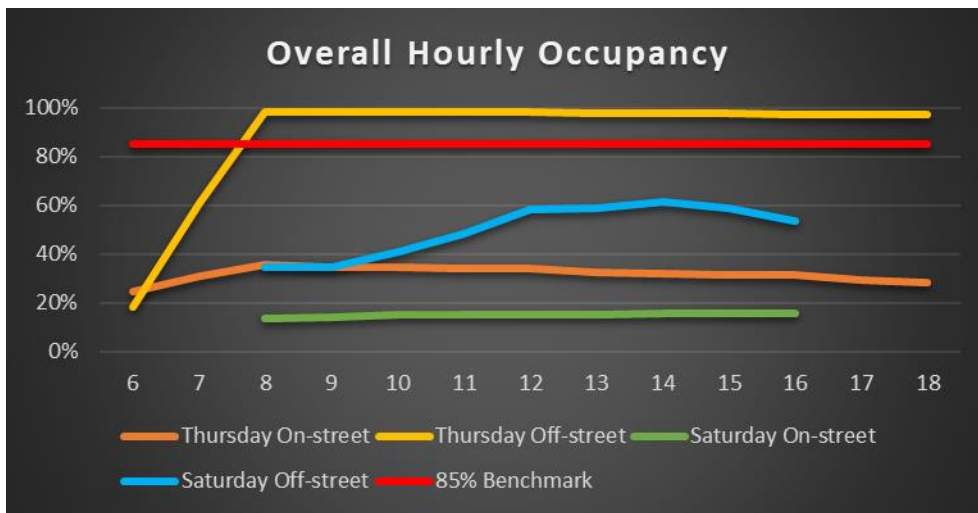


Figure 2.90: Overall Cherrybrook Metro Precinct parking occupancy

Table 2-89 and Table 2-90 present the on-street and off-street, average and peak occupancy for the Cherrybrook Metro Precinct.

Table 2-89: On-street parking capacity and occupancy in the Cherrybrook Metro Precinct

	Thursday	Saturday
Capacity	493	493
Average occupancy	32%	15%
Peak occupancy	35%	16%

Table 2-90: Off-street parking capacity and occupancy in the Cherrybrook Metro Precinct

	Thursday	Saturday
Capacity	436	436
Average occupancy	89%	50%
Peak occupancy	98%	61%

### 2.10.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-91 and Figure 2.91 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-91: On-street duration of stay in the Cherrybrook Metro Precinct

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	66	15%	21	14%
1-2hrs	77	17%	18	12%
2-3hrs	57	13%	22	15%
3-4hrs	54	12%	24	16%
4-5hrs	57	13%	17	11%
5-6hrs	37	8%	14	9%

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
6-7hrs	38	8%	9	6%
7-8hrs	23	5%	7	5%
8-9hrs	17	4%	17	11%
9-10hrs	9	2%		
10+ hrs	19	4%		
Total	454		149	
Average turnover per bay		0.9		0.3
Average duration of stay		1.9		0.7

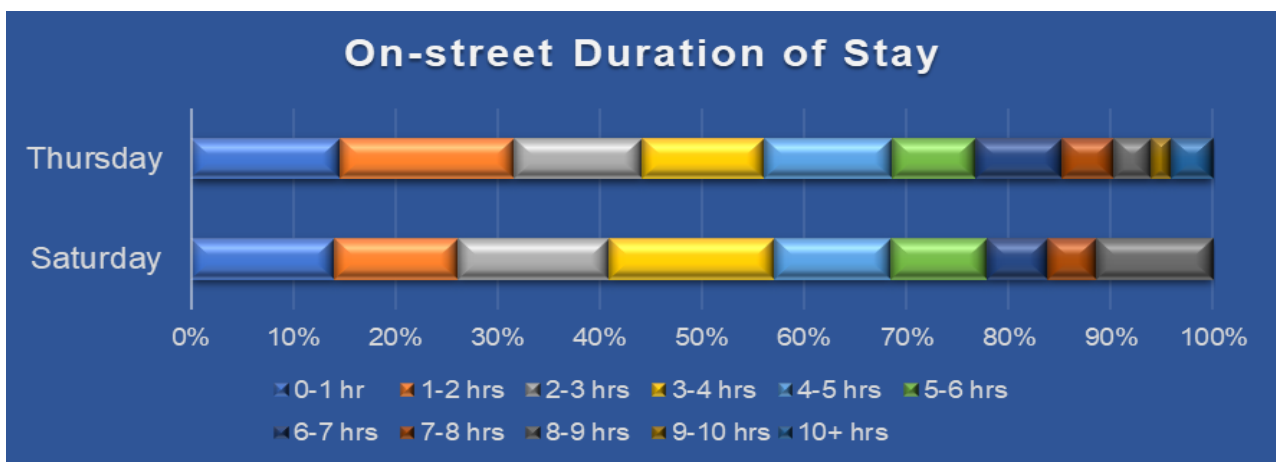


Figure 2.91: On-street duration of stay in the Cherrybrook Metro Precinct

Table 2-92 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-92: Average on-street turnover in the Cherrybrook Metro Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.3	0.2
Unrestricted	2.3	0.7

#### Off-Street Duration of Stay and Turn Over

Table 2-93 and Figure 2.92 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-93: Off-street duration of stay in the Cherrybrook Metro Precinct

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	100	11%	34	9%
1-2hrs	111	12%	37	9%
2-3hrs	114	12%	46	12%
3-4hrs	106	11%	58	15%
4-5hrs	95	10%	52	13%
5-6hrs	109	12%	56	14%
6-7hrs	80	8%	46	12%
7-8hrs	67	7%	15	4%
8-9hrs	49	5%	49	12%
9-10hrs	36	4%		
10+ hrs	79	8%		
Total	946		393	
Average turnover per bay	2.9		0.7	
Average duration of stay	4.3		2	

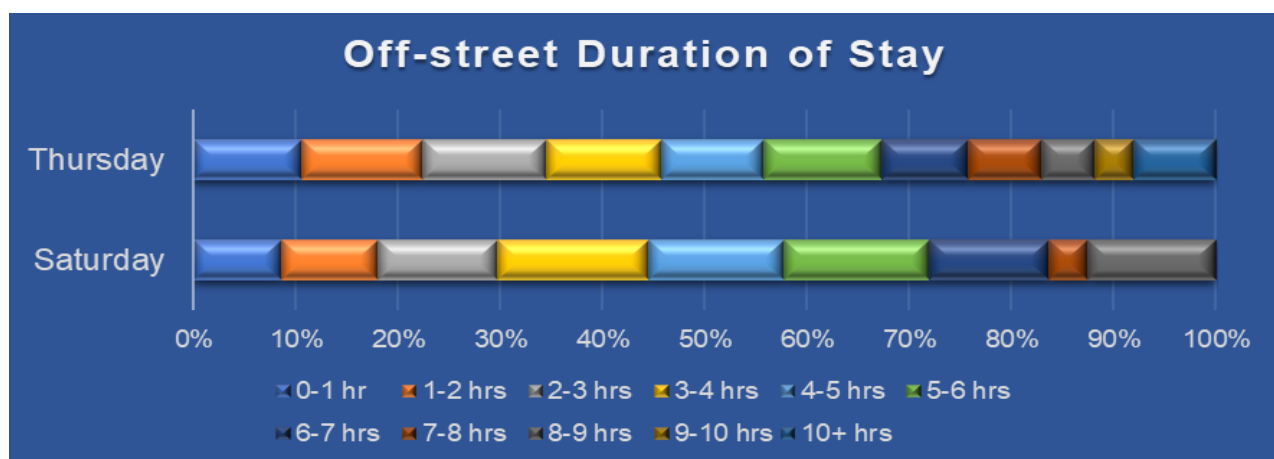


Figure 2.92: Off-street duration of stay in the Cherrybrook

Table 2-94 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-94: Average off-street turnover in the Cherrybrook

Parking restriction	Average turnover per bay	
	Thursday	Saturday
Time restricted	N/A	N/A
Unrestricted	0.9	0.7

## 2.10.4 FINDINGS

The survey results for the Cherrybrook revealed the following:

- **There are 1,703 parking bays located within the study area. Of these, 21% are time restricted and 69% unrestricted.**
- **66% of parking supply is on-street, while 34% is off-street.**
- **Peak occupancy on-street is 35% on a Thursday at 8 am, and, 16% on a Saturday with peak demand occurring at 2 pm.**
- **Peak occupancy off-street is 98% on a Thursday from 8 am to 2 pm and 61% on a Saturday with peak demand occurring at 2 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 0.6 car during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1 car during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 0.7 hour for on-street parking.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **Ashford Road**
  - **Clifton Place - Ashford Road end**
  - **Country Drive - from Treetops Road to John Road.**

## 2.10.5 TRIP ORIGIN

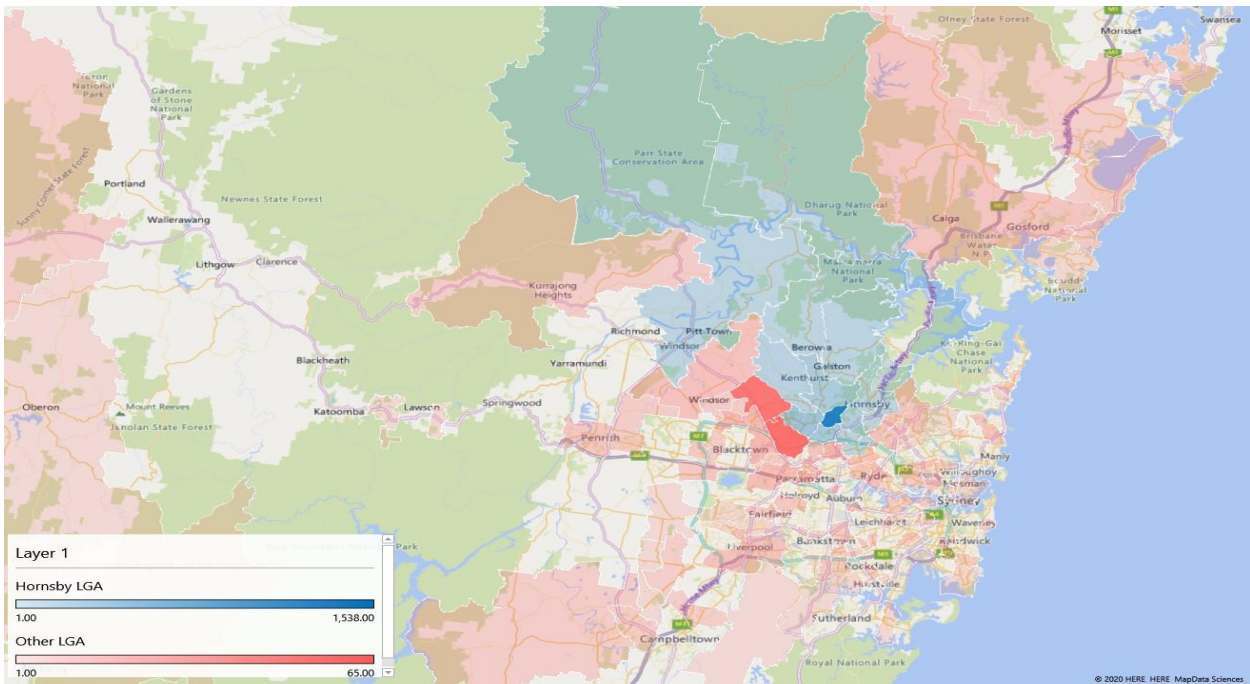


Figure 2.93: Trip origin survey results heat map

The survey results revealed 78.72% of parkers' trip origins in Cherrybrook Metro were located within the Hornsby LGA with 21.28% in other surrounding LGA's'.

## 2.11 FAGAN PARK

The study area for the Fagan Park Activity Centre is presented in Figure 2.94.

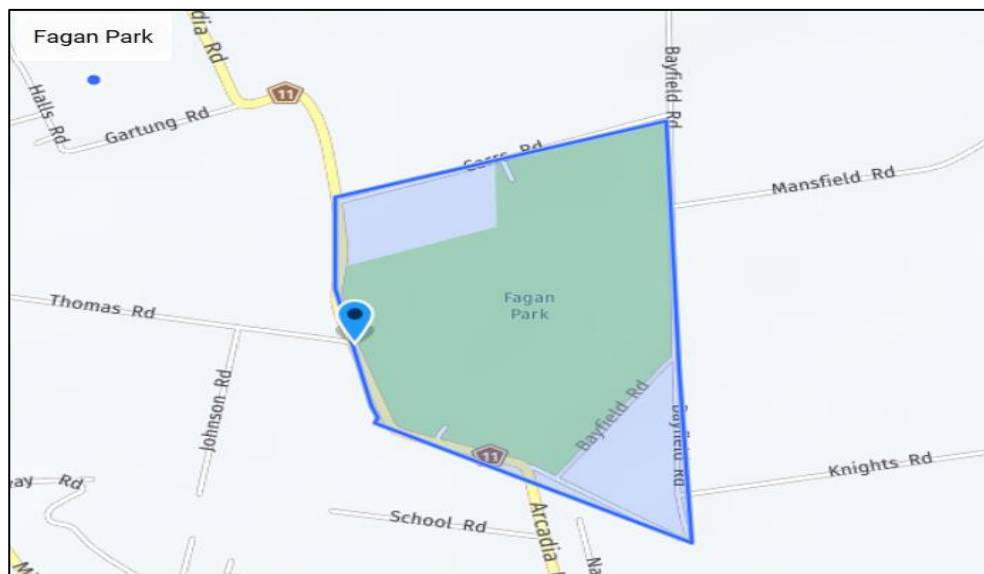


Figure 2.94: Fagan Park Activity Centre survey study area

### 2.11.1 PARKING SUPPLY

The supply survey identified 530 parking bays on-street and 412 parking bays off-street within the Fagan Park Activity Centre. A summary of the overall on-street and off-street parking supply in the Fagan Park Activity Centre is presented in Table 2-95 and Table 2-96.

Figure 2.95 and Figure 2.96 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-95: On-street parking inventory within the Fagan Park Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	474	89%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	56	11%
Total overall supply	530	100%

Table 2-96: Off-street parking inventory within the Fagan Park Activity Centre

Parking type	Parking bays	% of total
Time-restricted parking	0	0%
Unrestricted parking	135	33%
Parking for persons with a disability	7	2%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	270	66%
Total overall supply	412	100%

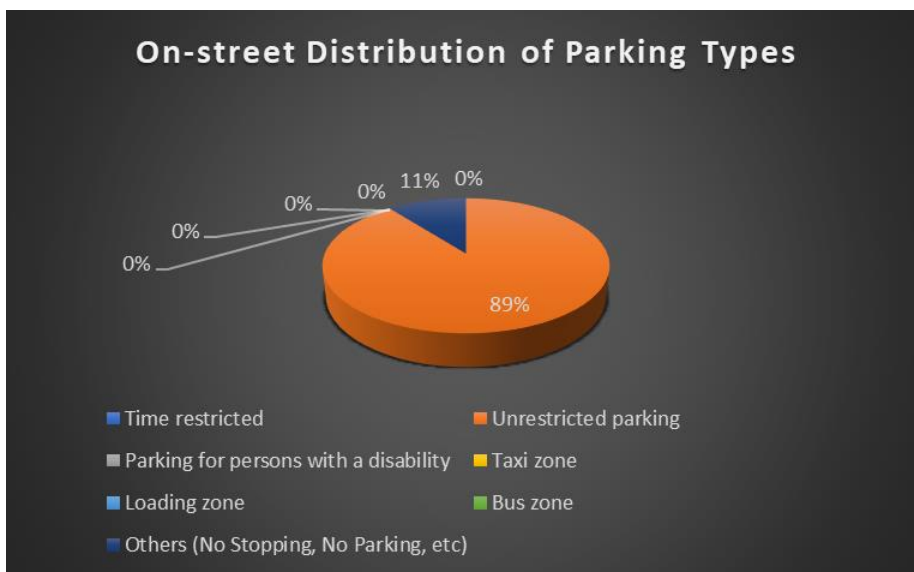


Figure 2.95: Distribution of on-street parking types in the Fagan Park Activity Centre



Figure 2.96: Distribution of off-street parking types in the Fagan Park Activity Centre

Table 2-97 presents the breakdown of on-street and off-street parking supply while Figure 2.97 presents the percentage distribution for on-street and off-street parking.

Table 2-97: On-street and off-street parking supply within the Fagan Park Activity Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	0	0%
Unrestricted parking	474	78%
<b>Off-street</b>		
Time restricted parking	0	0%
Unrestricted parking	135	22%
<b>Total</b>	<b>609</b>	<b>100%</b>



Figure 2.97: Distribution of on-street and off-street parking in the Fagan Park Activity Centre

### 2.11.2 DEMAND

Table 2-4 presents the hourly parking occupancy observed at the Fagan Park Activity Centre, while Figure 2.5, Figure 2.6 and Figure 2.7 present the on-street, off-street and overall hourly parking occupancy.

Table 2-98: Fagan Park Activity Centre hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Sunday	Thursday	Saturday
9:00	0	2	0%	0%
10:00	1	7	0%	2%
11:00	2	7	0%	2%
12:00	3	10	1%	2%
13:00	3	11	1%	3%
14:00	3	10	1%	2%
15:00	1	10	0%	2%
16:00	1	10	0%	2%



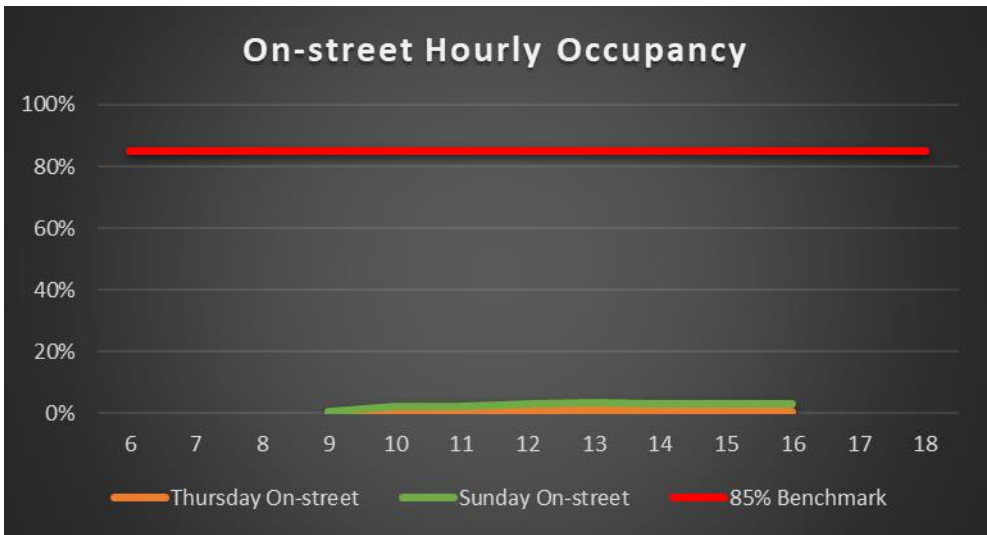


Figure 2.98: On-street hourly occupancy in the Fagan Park Activity Centre

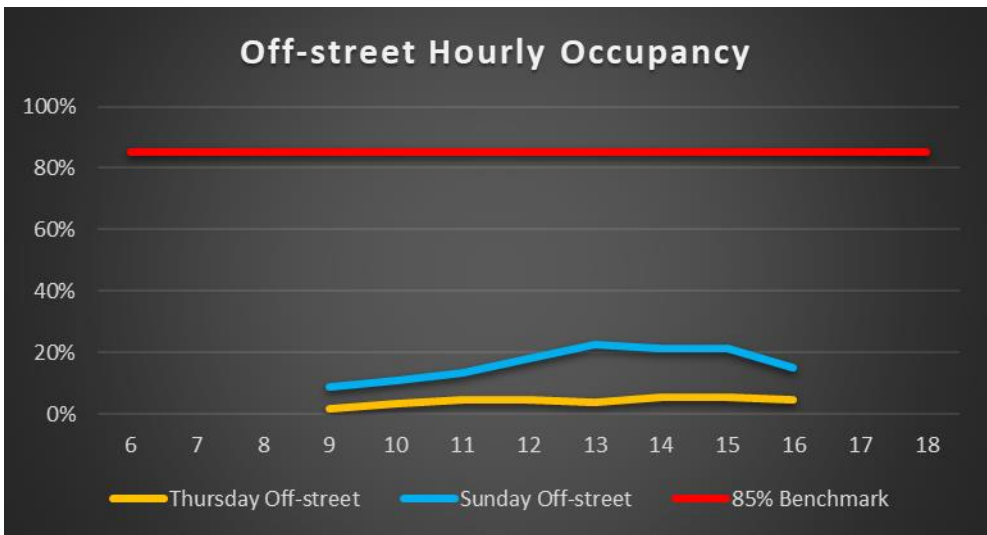


Figure 2.99: Off-street hourly occupancy in the Fagan Park Activity Centre

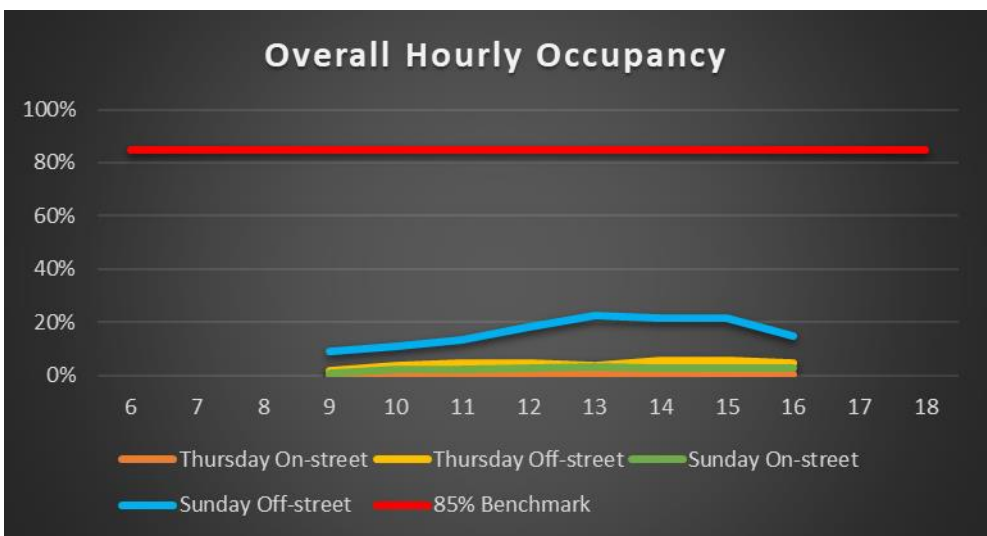


Figure 2.100: Overall Fagan Park Activity Centre parking occupancy

Table 2-99 and Table 2-100 present the on-street and off-street, average and peak occupancy for the Fagan Park Activity Centre.

*Table 2-99: On-street parking capacity and occupancy in the Fagan Park Activity Centre*

	Thursday	Saturday
Capacity	357	357
Average occupancy	0%	2%
Peak occupancy	1%	3%

*Table 2-100: Off-street parking capacity and occupancy in the Fagan Park Activity Centre*

	Thursday	Saturday
Capacity	288	288
Average occupancy	4%	17%
Peak occupancy	6%	23%

### 2.11.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-101 and Figure 2.101 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

*Table 2-101: On-street duration of stay in the Fagan Park Activity Centre*

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	0	0%	2	13%
1-2hrs	1	25%	2	13%
2-3hrs	1	25%	1	7%
3-4hrs	1	25%	0	0%
4-5hrs	1	25%	6	40%
5-6hrs	0	0%	1	7%
6-7hrs	0	0%	2	13%
7-8hrs	0	0%	1	7%
Total	4	100%	15	100%
Average turnover per bay	0		0	
Average duration of stay	0		0.1	

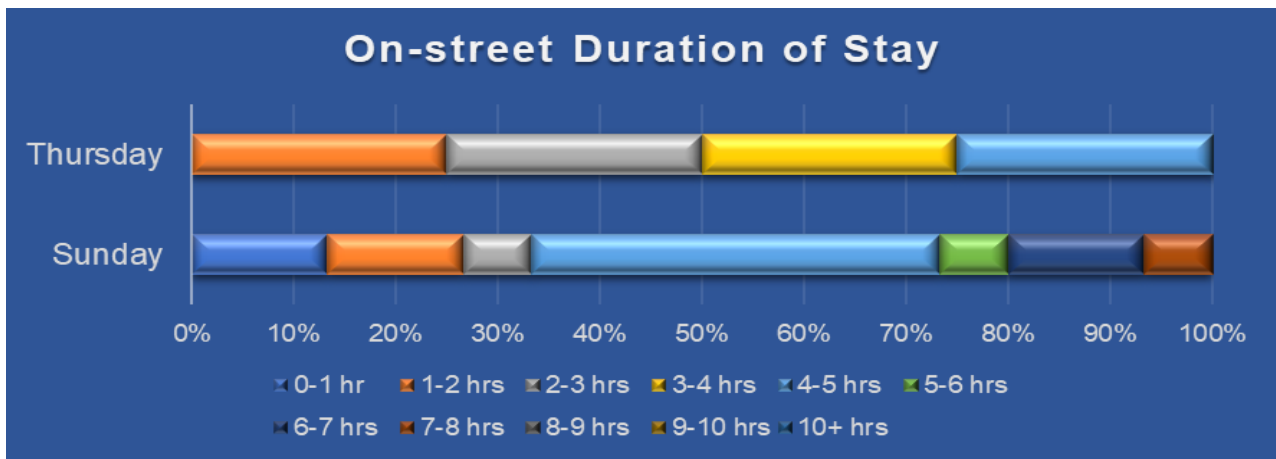


Figure 2.101: On-street duration of stay in the Fagan Park Activity Centre

Table 2-102 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-102: Average on-street turnover in the Fagan Park Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	N/A	N/A
Unrestricted	0	0.1

### Off-Street Duration of Stay and Turn Over

Table 2-103 and Figure 2.102 presents the off-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-103: Off-street duration of stay in the Fagan Park Activity Centre

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	3	11%	13	12%
1-2hrs	7	25%	17	16%
2-3hrs	7	25%	29	27%
3-4hrs	4	14%	19	18%
4-5hrs	1	4%	14	13%
5-6hrs	4	14%	12	11%
6-7hrs	0	0%	3	3%
7-8hrs	2	7%	1	1%
Total	28	100%	108	100%
Average turnover per bay	0.1		0.2	
Average duration of stay	0.1		0.4	

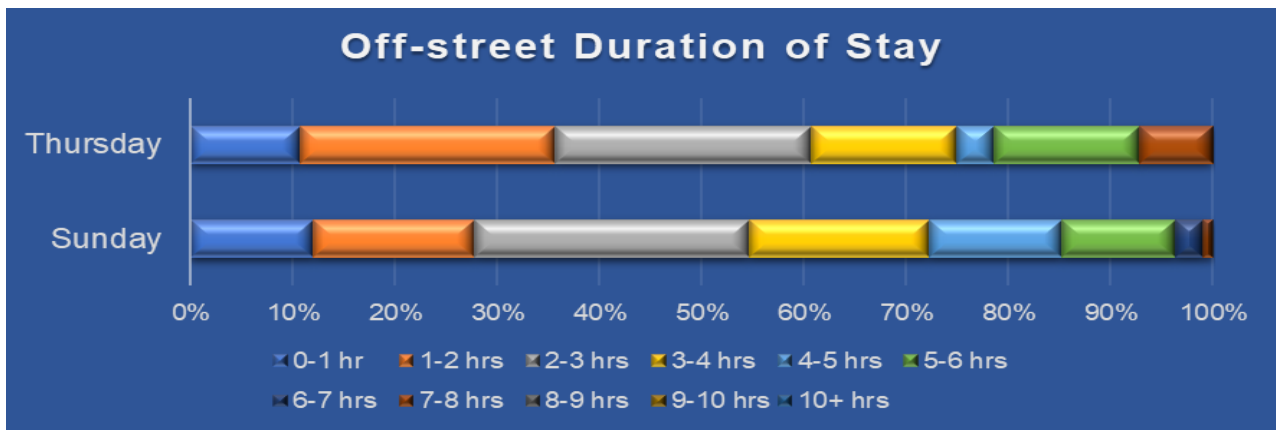


Figure 2.102: Off-street duration of stay in the Fagan Park Activity Centre

Table 2-104 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-104: Average off-street turnover in the Fagan Park Activity Centre

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	N/A	N/A
Unrestricted	0	0

#### 2.11.4 FINDINGS

The survey results for the Fagan Park Activity Centre revealed the following:

- **There are 942 parking bays located within the study area. Of these, 100% are unrestricted parking.**
- **78% of parking supply is on-street, while 22% is off-street.**
- **Peak occupancy on-street is 1% on a Thursday from 12 pm to 3 pm, and, 3% on a Sunday with peak demand occurring from 12 pm to 4 pm.**
- **Peak occupancy off-street is 6% on a Thursday from 2 pm to 4 pm and 23% on a Sunday with peak demand occurring at 1 pm.**
- **The unrestricted areas of on-street parking generate an average turnover of 0 cars during the survey on Thursday.**
- **The average length of stay on-street on a Sunday is 0.1 hours for on-street parking.**

## 2.11.5 TRIP ORIGIN

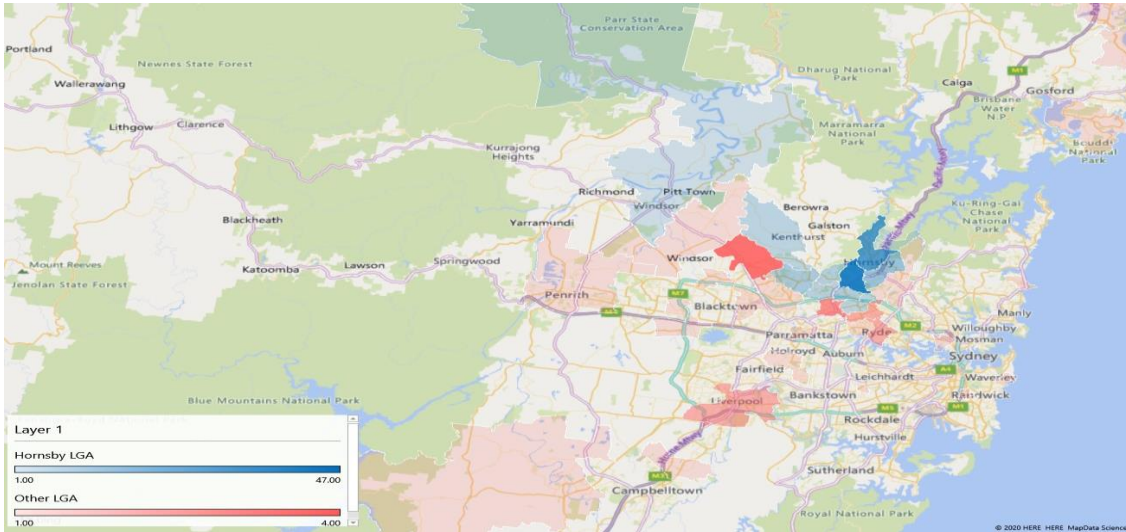


Figure 2.103: Trip origin survey results heat map

The survey results revealed 66.10% of parkers' trip origins in Fagan Park were located within the Hornsby LGA with 33.90% in other surrounding LGA's'.

## 2.12 GALSTON VILLAGE PRECINCT

The study area for the Galston Village Precinct is presented in Figure 2.104.

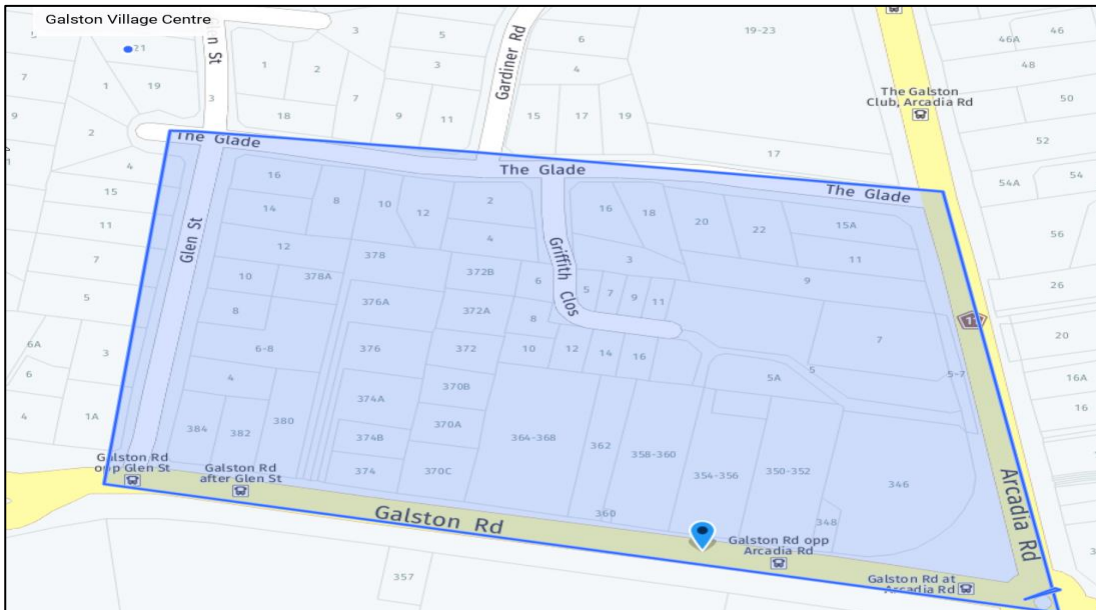


Figure 2.104: Galston Village Precinct survey study area

### 2.12.1 PARKING SUPPLY

The supply survey identified 274 parking bays on-street and 211 parking bays off-street within the Galston Village Precinct. A summary of the overall on-street and off-street parking supply in the Galston Village Precinct is presented in Table 2-105 and Table 2-106.

Figure 2.105 and Figure 2.106 present the distribution of on-street and off-street parking types in pie chart format.

Table 2-105: On-street parking inventory within the Galston Village Precinct

Parking type	Parking bays	% of total
Time-restricted parking	37	6%
Unrestricted parking	582	88%
Parking for persons with a disability	0	0%
Taxi zone	2	0%
Loading zone	0	0%
Bus zone	14	2%
Others (ambulance, reserved etc.)	24	4%
Total overall supply	659	100%

Table 2-106: Off-street parking inventory within the Galston Village Precinct

Parking type	Parking bays	% of total
Time-restricted parking	67	32%
Unrestricted parking	131	62%
Parking for persons with a disability	5	2%
Taxi zone	0	0%
Loading zone	6	3%
Bus zone	0	0%
Others (ambulance, reserved etc.)	2	1%
Total overall supply	211	100%

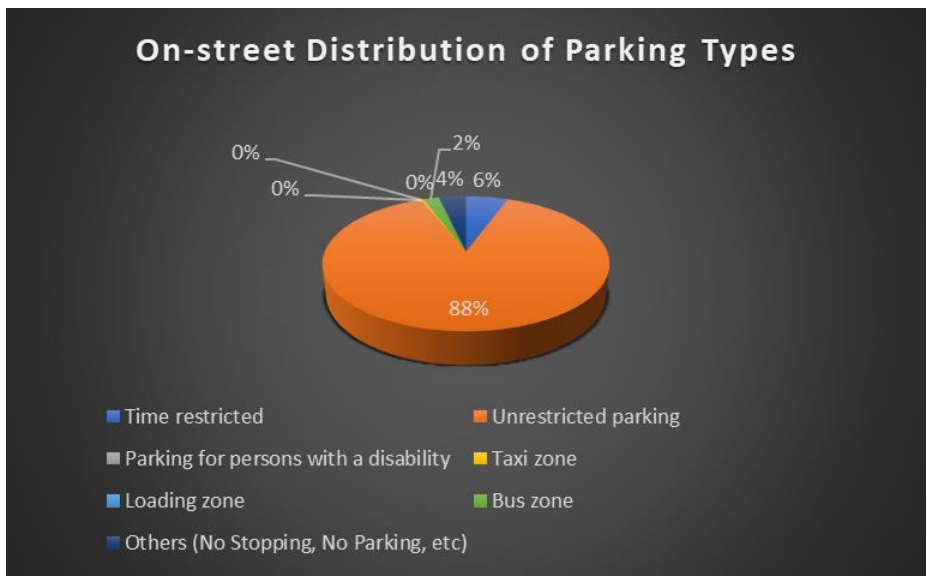


Figure 2.105: Distribution of on-street parking types in the Galston Village Precinct



Figure 2.106: Distribution of on-street and off-street parking in the Galston Village Precinct

Table 2-107: On-street and off-street parking supply within Galston Village Precinct

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	27	7%
Unrestricted parking	173	43%
<b>Off-street</b>		
Time restricted parking	67	17%
Unrestricted parking	131	33%
<b>Total</b>	<b>398</b>	<b>100%</b>

### 2.12.2 DEMAND

Table 2-108 presents the hourly parking occupancy observed at the Galston Village Precinct, while Figure 2.107, Figure 2.108 and Figure 2.109 present the on-street, off-street and overall hourly parking occupancy.

Table 2-108: Galston Village Precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
9:00		167		54%
10:00	227	177	73%	57%
11:00	229	185	73%	59%
12:00	223	165	71%	53%
13:00	219	160	70%	51%
14:00	223	151	71%	48%
15:00	215	130	69%	42%
16:00	208	131	67%	42%
17:00	201		64%	
18:00	193		62%	

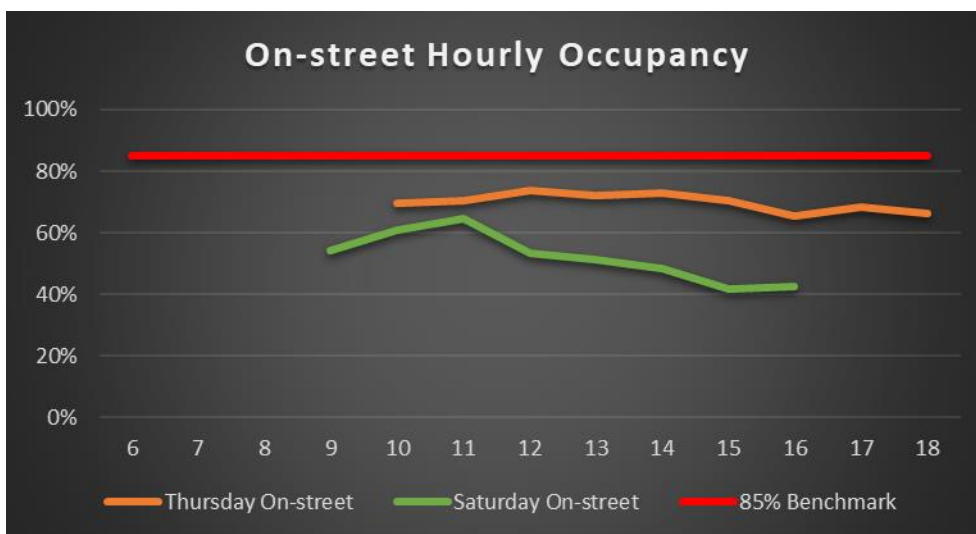


Figure 2.107: On-street hourly occupancy in the Galston Village Precinct



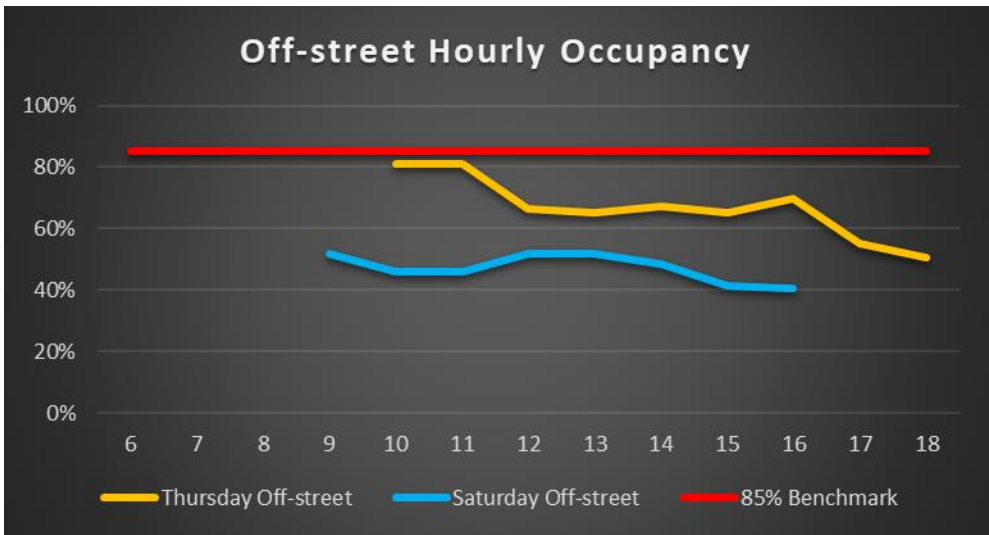


Figure 2.108: Off-street hourly occupancy in the Galston Village Precinct

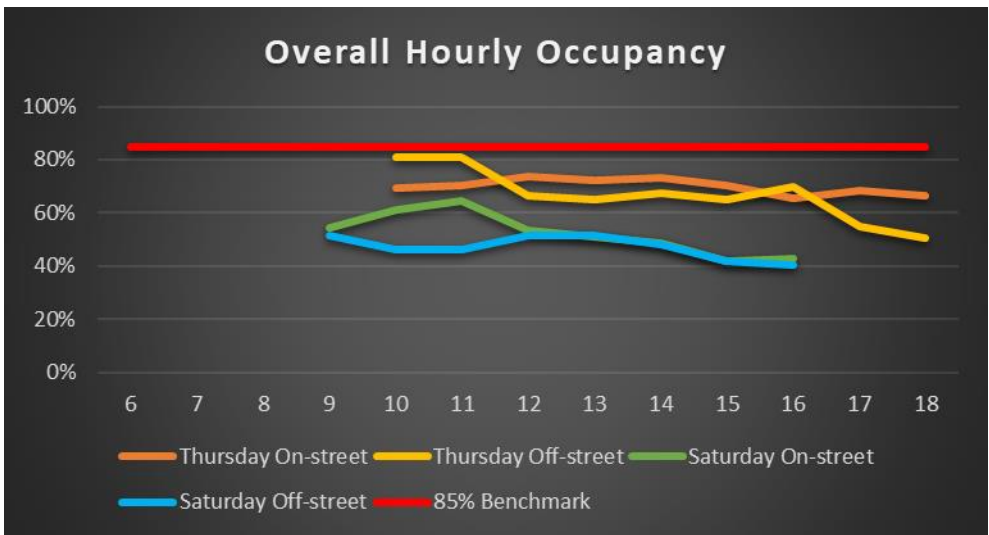


Figure 2.109: Overall parking occupancy

Table 2-109 and Table 2-110 presents the on-street average and peak occupancy for the Galston Village Precinct.

Table 2-109: On-street parking capacity and occupancy in the Galston Village Precinct

	Thursday	Saturday
Capacity	223	223
Average occupancy	70%	52%
Peak occupancy	74%	65%

Table 2-110: Off-street parking capacity and occupancy in the Galston Village Precinct

	Thursday	Saturday
Capacity	89	89
Average occupancy	67%	47%
Peak occupancy	81%	52%

### 2.12.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-111 and Figure 2.110 presents the on-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-111: On-street duration of stay in the Galston Village Precinct

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	147	40%	97	36%
1-2hrs	33	9%	37	14%
2-3hrs	28	8%	28	10%
3-4hrs	27	7%	18	7%
4-5hrs	24	6%	19	7%
5-6hrs	27	7%	20	7%
6-7hrs	13	4%	12	4%
7-8hrs	23	6%	38	14%
8-9hrs	49	13%		
Total	447	100%	139	100%
Average turnover per bay	1.6		1	
Average duration of stay	2.1		1.4	

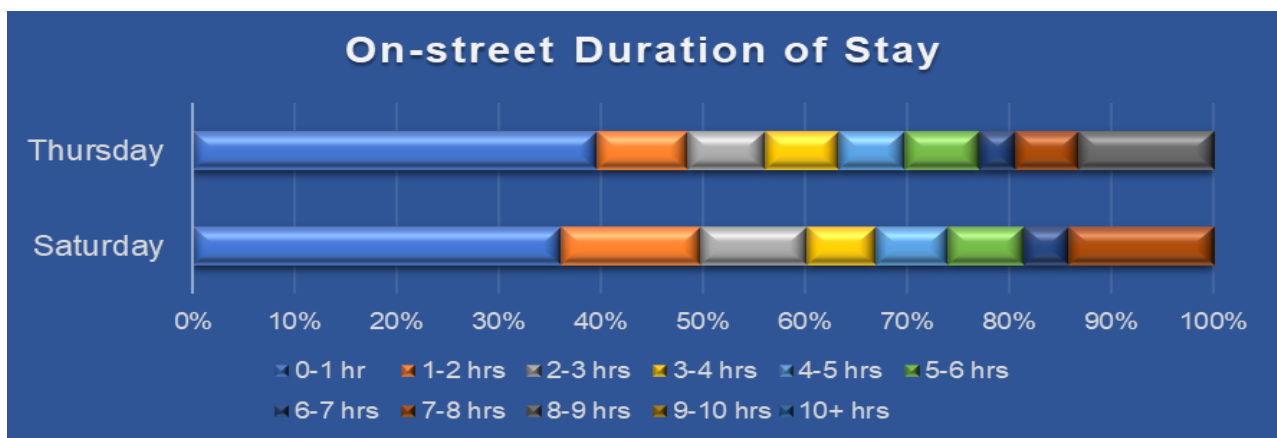


Figure 2.110: On-street duration of stay in the Galston Village Precinct

Table 2-112 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-112: Average on-street turnover in the Galston Village Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.9	1.2
Unrestricted	2.6	1.8

## Off-Street Duration of Stay and Turn Over

Table 2-113 and Figure 2.111 presents the off-street duration of stay and average turnover observed on Thursday and Saturday.

Table 2-113: Off-street duration of stay in the Galston Village Precinct

Time	Thursday		Saturday	
	Vehicles	%	Vehicles	%
0-1hr	207	61%	149	65%
1-2hrs	95	28%	62	27%
2-3hrs	27	8%	17	7%
3-4hrs	8	2%	3	1%
4-5hrs	5	1%	0	0%
Total	342	100%	231	100%
Average turnover per bay	2.2		1.5	
Average duration of stay	0.9		0.5	

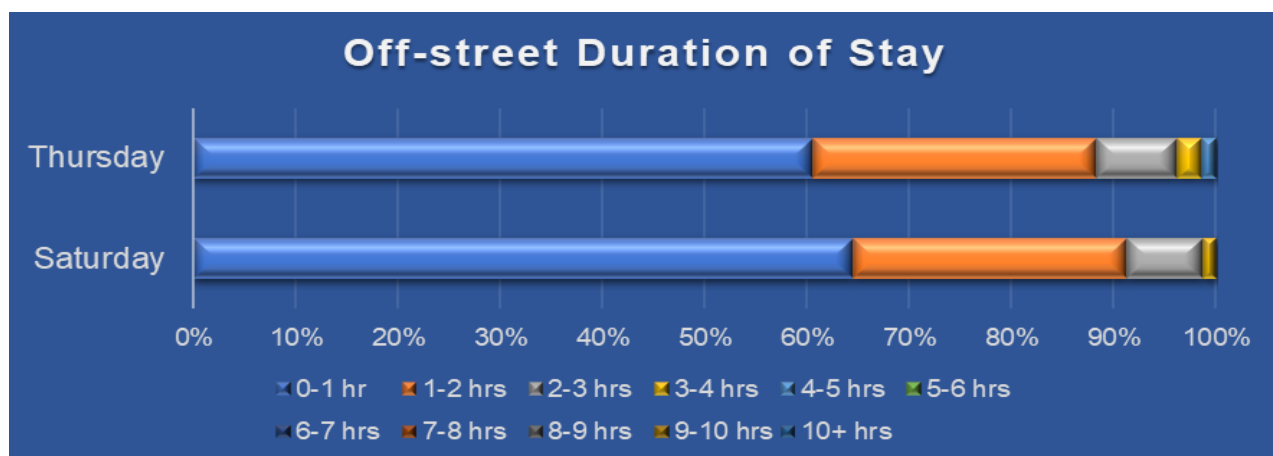


Figure 2.111: Off-street duration of stay in the Galston Village Precinct

Table 2-114 presents the Thursday and Saturday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-114: Average off-street turnover in the Galston Village Precinct

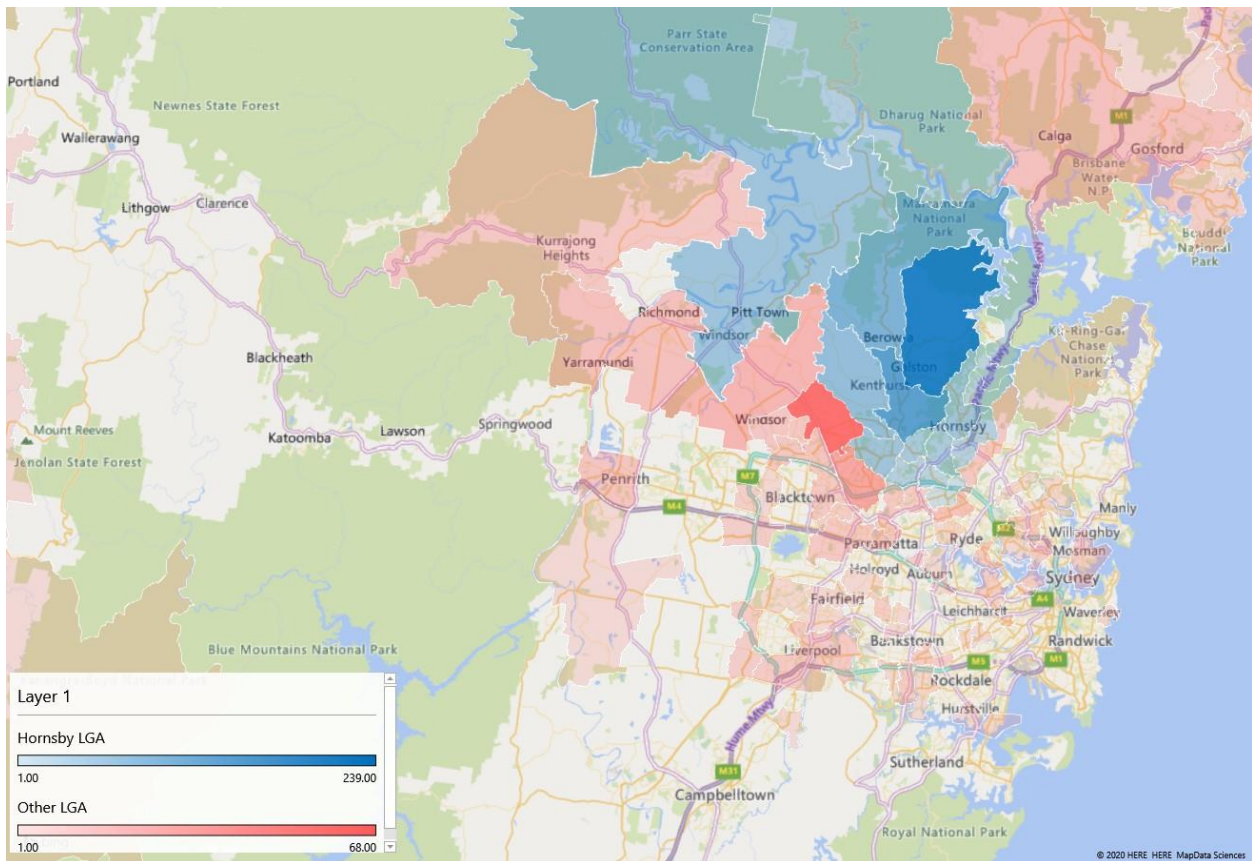
Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	1.2	0.7
Unrestricted	1.6	1.1

## 2.12.4 FINDINGS

The survey results for the Cherrybrook revealed the following:

- **There are 485 parking bays located within the study area. Of these, 24% are time restricted and 76% unrestricted.**
- **50% of parking supply is on-street, while 50% is off-street.**
- **Peak occupancy on-street is 74% on a Thursday at 12 pm, and, 65% on a Saturday with peak demand occurring at 11 am.**
- **Peak occupancy off-street is 81% on a Thursday from 10 am to 12 pm and 52% on a Saturday with peak demand occurring at 10 am and between 12 pm to 2 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 1.2 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 1.6 cars during the survey on Thursday.**
- **The average length of stay on-street on a Saturday is 1.4 hour for on-street parking.**

## 2.12.5 TRIP ORIGIN



The survey results revealed 67.63% of parkers' trip origins in Galston Village Precinct were located within the Hornsby LGA with 32.37% in other surrounding LGA's'.

## 2.13 SALISBURY ROAD AND LEIGHTON PLACE INDUSTRIAL PRECINCT

The study area for the Salisbury Road and Leighton Place Industrial Precinct is presented Figure 2.113.

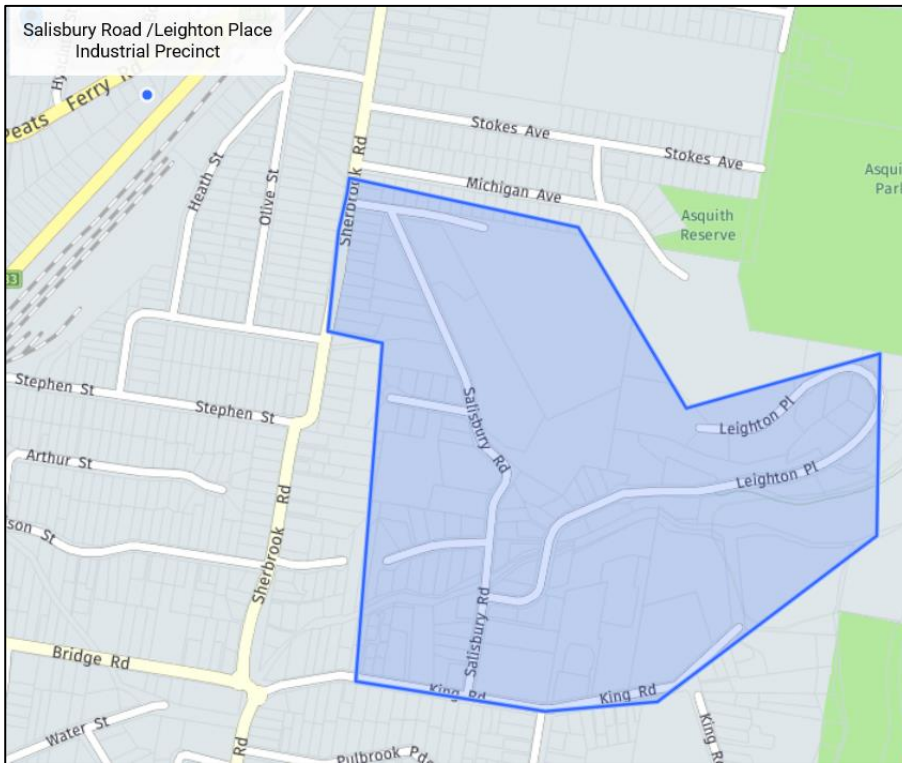


Figure 2.113: Salisbury Road and Leighton Place Industrial Precinct survey study area

### 2.13.1 PARKING SUPPLY

The supply survey identified 656 parking bays on-street and no on-street parking bays within the Salisbury Road and Leighton Place Industrial Precinct. A summary of only on-street parking is supplied in the Salisbury Road and Leighton Place Industrial Precinct is presented in Table 2-115.

Figure 2.114 presents the distribution of on-street parking types in pie chart format.

Table 2-115: On-street parking inventory within the Salisbury Road and Leighton Place Industrial Precinct

Parking type	Parking bays	% of total
Time-restricted parking	10	2%
Unrestricted parking	605	92%
Parking for persons with a disability	0	0%
Taxi zone	0	0%
Loading zone	0	0%
Bus zone	0	0%
Others (ambulance, reserved etc.)	41	6%
Total overall supply	656	100%

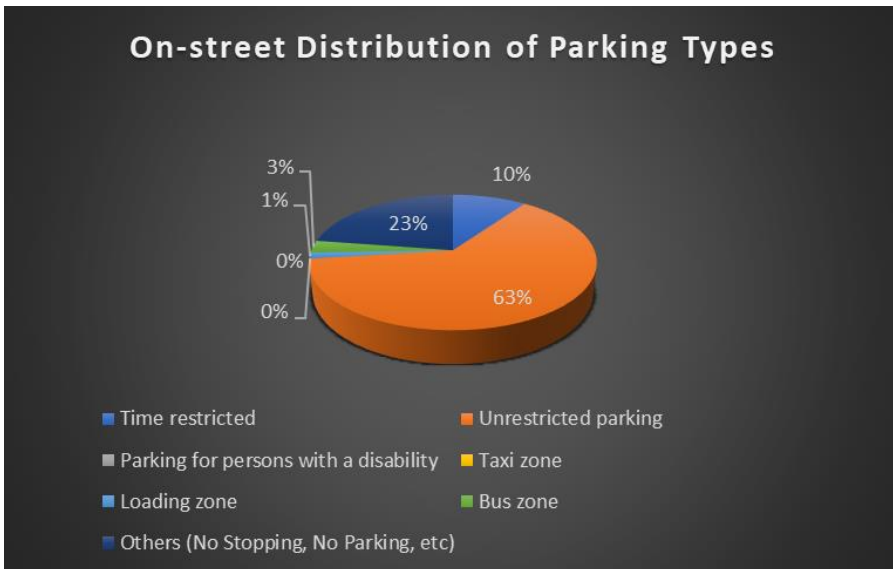


Figure 2.114: Distribution of on-street parking types in Salisbury Road and Leighton Place Industrial Precinct

Table 2-116 presents the breakdown of on-street and off-street parking supply while Figure 2.51 presents the percentage distribution for on-street and off-street parking.

Table 2-116: On-street and off-street parking supply within the Pennant Hills Town Centre

Parking type	Parking bays	% of total
<b>On-street</b>		
Time restricted parking	10	2%
Unrestricted parking	605	98%
<b>Off-street</b>		
Time restricted parking	0	0%
Unrestricted parking	0	0%
<b>Total</b>	<b>615</b>	<b>100%</b>



Figure 2.115: Distribution of on-street and off-street parking in the Salisbury Road and Leighton Place Industrial Precinct

## 2.13.2 DEMAND

Table 2-117 presents the hourly parking occupancy observed at the Salisbury Road and Leighton Place Industrial Precinct, while Figure 2.116 presents the on-street hourly parking occupancy on Thursday only. Businesses are closed on weekends hence no survey was conducted.

Table 2-117: Salisbury Road and Leighton Place Industrial Precinct hourly occupancy

Time	Occupied bays		% Occupied	
	Thursday	Saturday	Thursday	Saturday
7:00	248	N/A	58%	N/A
8:00	271	N/A	63%	N/A
9:00	287	N/A	67%	N/A
10:00	312	N/A	73%	N/A
11:00	323	N/A	75%	N/A
12:00	323	N/A	75%	N/A
13:00	322	N/A	75%	N/A
14:00	321	N/A	75%	N/A
15:00	315	N/A	74%	N/A
16:00	288	N/A	67%	N/A
17:00	253	N/A	59%	N/A
18:00	220	N/A	51%	N/A

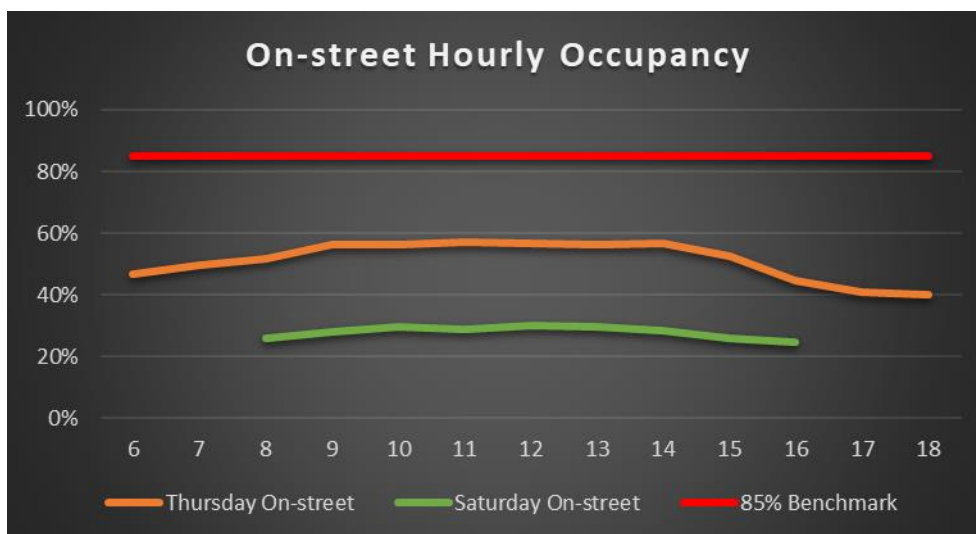


Figure 2.116: On-street hourly occupancy in the Salisbury Road and Leighton Place Industrial Precinct

Table 2-118 presents the on-street average and peak occupancy for the Salisbury Road and Leighton Place Industrial Precinct.

Table 2-118: On-street parking capacity and occupancy in the Salisbury Road and Leighton Place Industrial Precinct

	Thursday
Capacity	428
Average occupancy	68%
Peak occupancy	75%

### 2.13.3 DURATION OF STAY AND TURNOVER

#### On-street Duration of Stay and Turnover

Table 2-119 presents the on-street duration of stay and average turnover observed on Thursday.

Table 2-119: On-street duration of stay in the Salisbury Road and Leighton Place Industrial Precinct

Time	Thursday	
	Vehicles	%
0-1hr	56	20%
1-2hrs	38	14%
2-3hrs	23	8%
3-4hrs	33	12%
4-5hrs	26	9%
5-6hrs	21	8%
6-7hrs	20	7%
7-8hrs	23	8%
8-9hrs	8	3%
9-10hrs	6	2%
10+ hrs	21	8%
Total	<b>257</b>	
Average turnover per bay	3	
Average duration of stay	5.7	

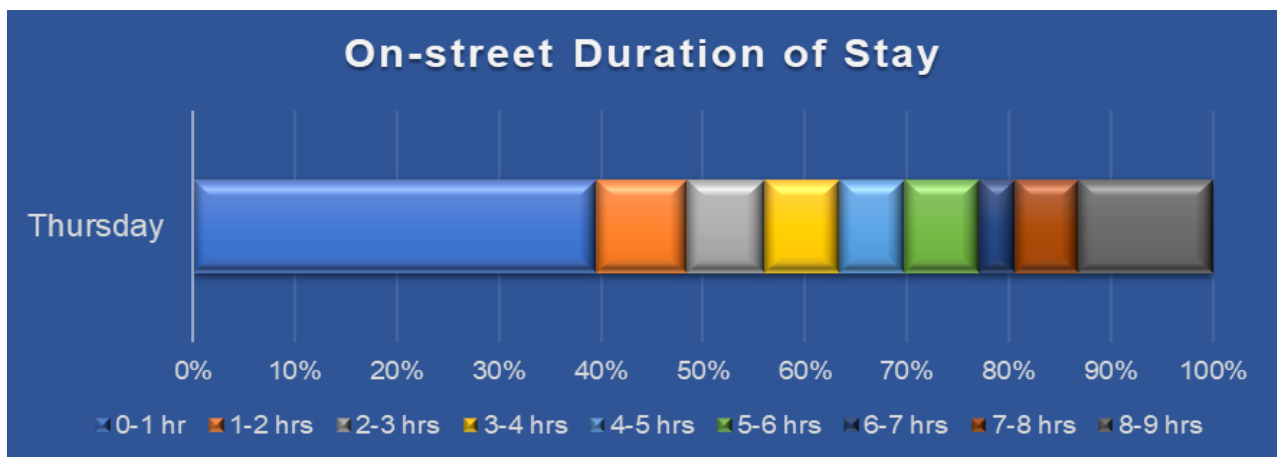


Figure 2.117: On-street duration of stay in the Salisbury Road and Leighton Place Industrial Precinct

Table 2-120 presents the Thursday average turnover per bay, which has been categorised by restricted and unrestricted areas.

Table 2-120: Average on-street turnover in the Salisbury Road and Leighton Place Industrial Precinct

Average turnover per bay		
Parking restriction	Thursday	Saturday
Time restricted	2.2	N/A
Unrestricted	3.1	N/A



### Off-Street Duration of Stay and Turn Over

No survey was conducted as there is no off-street parking found in Salisbury Road and Leighton Place Industrial Precinct.

#### 2.13.4 FINDINGS

The survey results for the Salisbury Road and Leighton Place Industrial Precinct revealed the following:

- **There are 656 parking bays located within the study area. Of these, 2% are time restricted and 98% unrestricted.**
- **100% of parking supply is on-street.**
- **Peak occupancy on-street is 75% on a Thursday from 11 am to 1 pm.**
- **The time-restricted areas of on-street parking generate an average turnover of 2.2 cars during the survey on Thursday.**
- **The unrestricted areas of on-street parking generate an average turnover of 3.1 car during the survey on Thursday.**
- **The average length of stay on-street on a Thursday is 2.6 hours for on-street parking.**
- **The following road segments yielded occupancy rates of higher than 85%:**
  - **King Road**
  - **Leighton Place**
  - **Brennan Close**
  - **Kelray Place – Salisbury Road end**
  - **Salisbury Road**
  - **Sherbrook Road.**

#### 2.13.5 TRIP ORIGIN

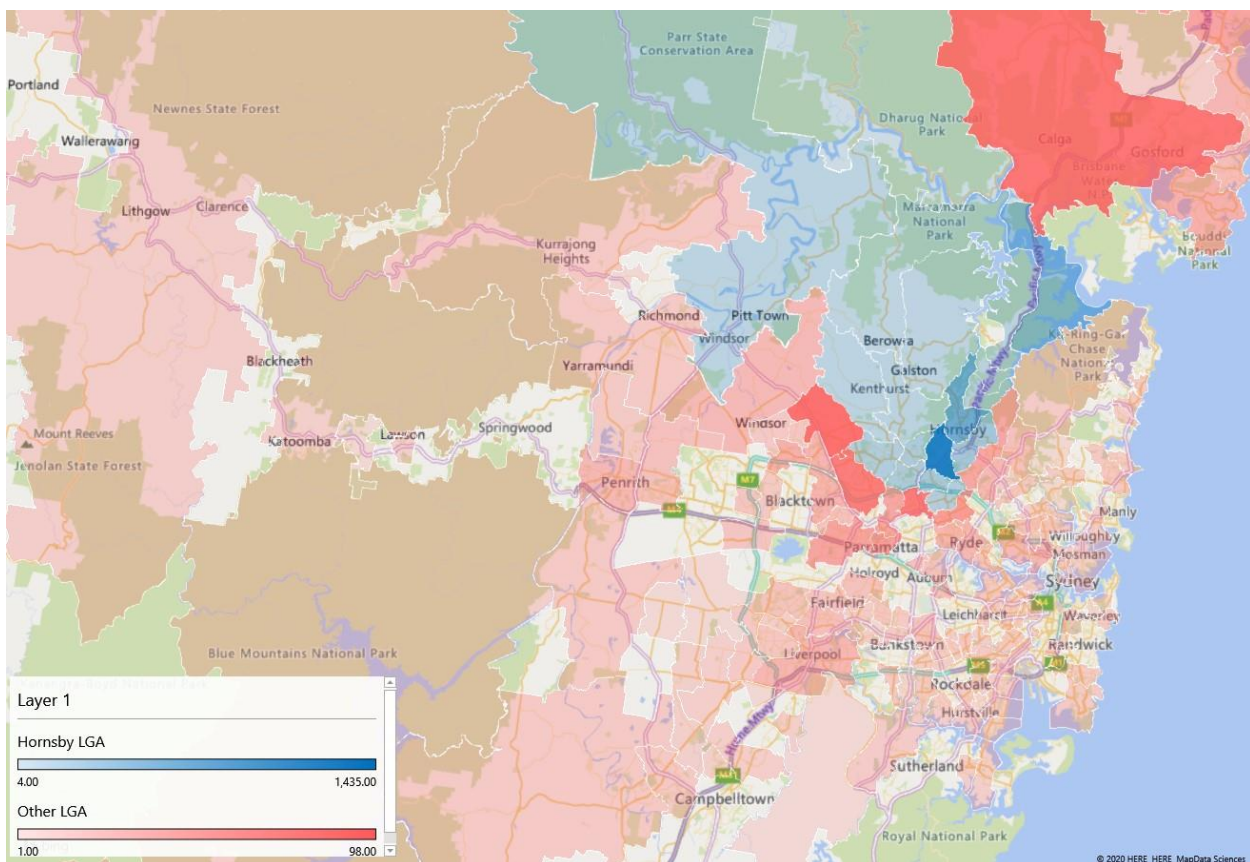


Figure 2.118: Trip origin survey results heat map

The survey results revealed 70.32% of parkers' trip origins in the Industrial area were located within the Hornsby LGA with 29.68% in other surrounding LGA's'.

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