

Dear Sir/Madam,

14 March 2021

Homes Victoria
Via email:

**Car Parking Occupancy Review
Patterson Reserve, Hawthorn**

Ratio Consultants was commissioned to review the potential implications of removing the Patterson Road car park from the Patterson Reserve. Patterson Reserve is located at 153 Robinson Road, Hawthorn and is home to the following recreational pursuits:

- **Hawthorn Velodrome:** Used by cyclists for recreational purposes, as well as the Hawthorn Cycling club who use it for junior and senior training as well as competition cycling.
- **Hawthorn Hockey Club:** The club utilises the two hockey fields located in the reserve. Juniors, Men's, Women's and Master's competitions are held at the club, including trainings.
- **Other activities:** There is a Farmer's Market that operates on certain Saturdays on each month, as well as personal training session/activities that run on the lawn area and cycle track of the Velodrome.

Car parking demands of these activities is accommodated in the on and off-street areas surrounding the reserve, including 27 spaces within the Patterson Road car park and 216 spaces in the Auburn Road off-street car park as depicted in the figure below. It is noted that there are a further 11 spaces in the Patterson Road car park which are permit restricted for the previous tenants of the buildings that were on the Homes Victoria site and are not for general public use.



This report examines the potential impact of removing the Patterson Road carpark, which is partially located within the land parcel proposed to be developed by Homes Victoria as part of Victoria’s Big Build program.

Specifically, we have reviewed whether there is sufficient capacity in the other parking areas within and surrounding the reserve to cater for the demands that are currently accommodated within the Patterson Road carpark. In exploring this question, we have examined the activities that currently rely on the car park and surveyed their existing demands on the car park. We have also surveyed the occupancy levels in the on and off-street parking areas in the broader precinct to establish whether there is sufficient capacity to cater for the displaced demand.

1 Existing Activity

Patterson Reserve generates most of its demands on weekends and during weekday evenings. In addition, pupils from the Auburn High School are understood to have access to the sporting areas during the day on weekdays.

Hockey:

Based on the information obtained from the Hawthorn Hockey Club and Hockey Victoria, games and training at the two fields at Patterson Reserve on weekday evenings. There are also games typically played on weekends during competition periods.

Cycling:

Based on the information obtained from the Hawthorn Cycling Club, recreational riding is held on the velodrome on Saturday and Sunday mornings. In addition, Cycling Victoria also hold events at the velodrome from time to time.

Boroondara Farmers Market

The Boroondara Farmers Market is held in the grassed area to the north of the southern Car Park on Saturday Week 1, 3 and 5 of each month between 8am and 12.30pm. The Farmers Market will be run at these times until Saturday 19th June 2021, according to online information. After this date, it is unclear whether these times or days of operation will change.

Other activities:

The cycling track of the velodrome is used for recreational cycling purposes; however, the lawn section is used for multiple activities, one of which is personal training sessions run by the Fitness Enhancement Personal Training company. The company provides personal training for individuals, small groups, large groups and people with disabilities.

The timings of these sessions are not fixed and varies depending on the nature of the training sessions and the demand of the public.

2 Car Parking Surveys

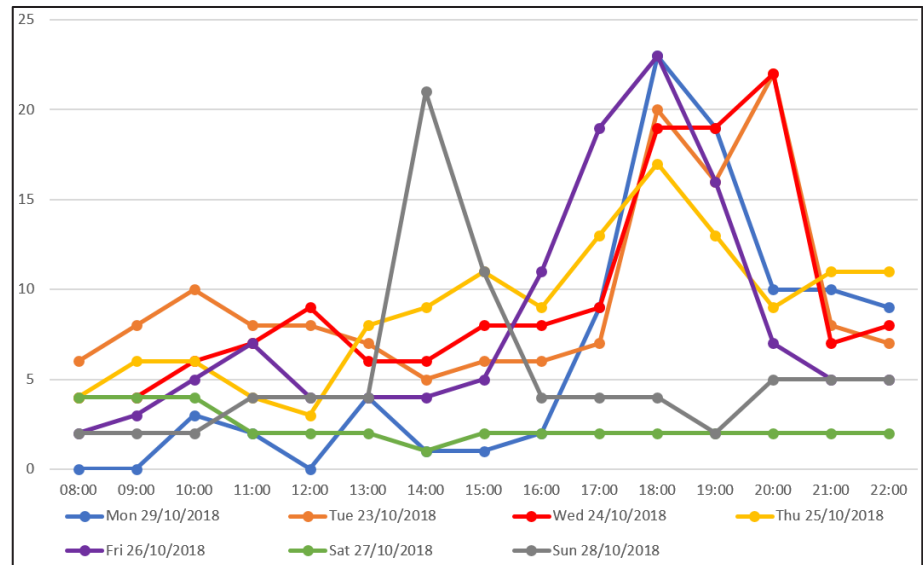
To determine the existing car parking demand levels, we have relied on the following three sources of information:

1. Occupancy surveys of the Patterson Road car park commissioned by Ratio Consultants in October 2018.
2. Car parking occupancy surveys commissioned by Ratio Consultants of the on and off-street car parking areas surrounding Patterson Reserve in February 2021.
3. Nearmap observations on select dates to capture periods of peak activity across all activity areas within the reserve.

2018 Surveys

As part of a separate engagement, parking surveys of the 27 public spaces within the Patterson Road car park were commissioned by Ratio Consultants across a standard week from Tuesday 23 October to Monday 29 October 2018. The results of the surveys are graphically shown in Figure 2.1 below, capturing the parking demands recorded between 8:00am to 10:00pm each day.

Figure 2.1: Car Parking Demand Surveys – Patterson Road Car Park



The results of the 2018 survey revealed that the peak demand for parking occurred on Monday and Friday at 6:00pm when a total of **23 spaces** were recorded to be occupied out of the 27 available spaces.

Before 5pm, demands were recorded to be less than 11 spaces on each of the days recorded, apart from Sunday when a demand of 21 spaces was recorded at 2pm.

After 5pm, higher levels of demand were recorded for the weekday evening periods, with lower demands recorded on the Sunday and Saturday evenings.

2021 Surveys

Further car parking surveys were commissioned by Ratio Consultants during February 2021 on Saturday 20th February 2021 between 11am and 7pm, and Wednesday 24th February 2021 between 7am and 10pm. The survey area is depicted in Figure 2.2 below.

Figure 2.2: Car Park Surveys Area - February 2021



The Wednesday date coincided with three women's hockey games being held on the hockey fields at 7pm, 8pm and 9pm respectively. To the best of our knowledge there were no scheduled events held in the reserve areas on the Saturday date.

The following observations were made from the survey results, with detailed results attached to Appendix A of this letter.

Wednesday 24 February 2021

- There were a total of 439 to 490 public parking spaces recorded in the survey area, with the variation relating to restrictions that apply at different times of the day.
- The maximum demand recorded was at 3:00pm, when 278 occupied spaces were recorded out of an available supply of 453 spaces, representing an occupancy of 61%.
- Of the 27 spaces in the Patterson Road car park, the maximum demand recorded was at 7:00pm, when **22 spaces** were recorded occupied. At 7:00pm, there was 387 available spaces within the survey area.

- There was a distinct drop off in demand observed after 5:00pm, when the occupancy levels dropped below 40% to the end of the survey period at 10:00pm when the occupancy was just 6%.

Saturday 20 February 2021

- There was a total of 468 public parking spaces recorded in the survey area during the Saturday survey period.
- The maximum demand recorded was at 1:00pm, when 58 occupied spaces were recorded out of an available supply of 468 spaces, representing an occupancy of 12%.
- Of the 27 spaces in the Patterson Road car park, the maximum demand recorded was at 2:00pm, when just **2 spaces** were recorded occupied. It is noted that there were no scheduled activities in the reserve throughout the Saturday survey period.
- Whilst these surveys were undertaken during a time of low activity in the reserve, the results reflect the low level of demand for on and off-street parking generated by the surrounding residential catchment.

Figure 2.3: Car Parking Demand Surveys – Saturday 20 February 2021

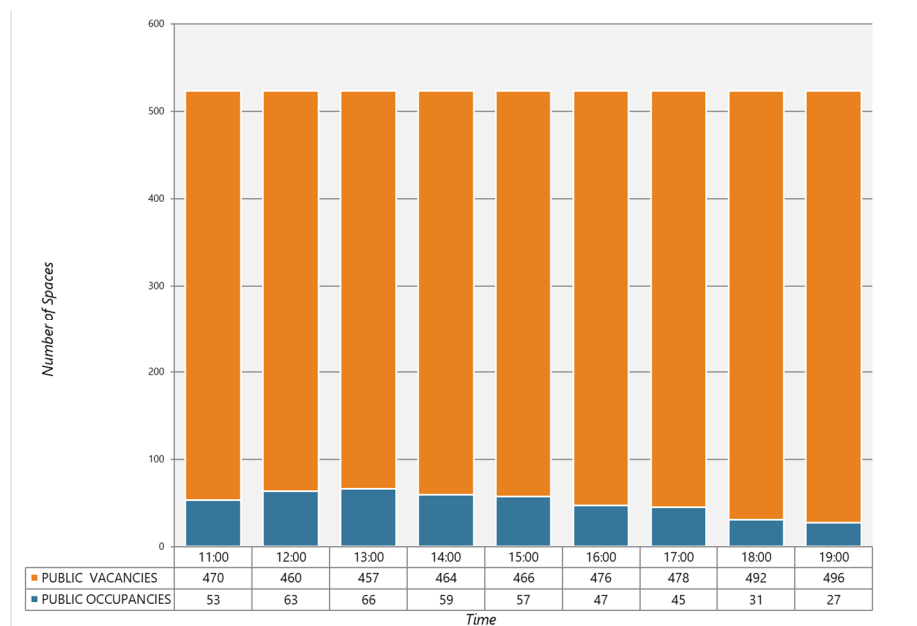
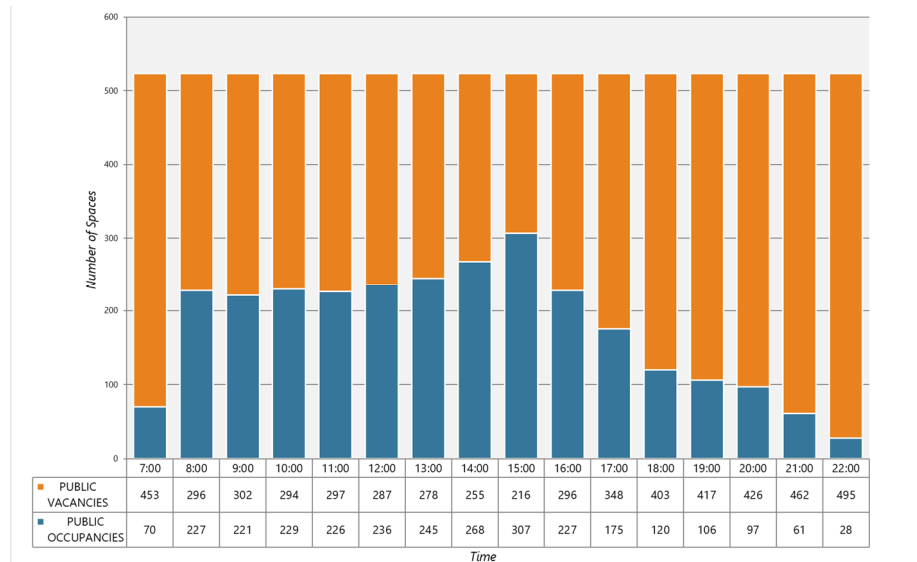


Figure 2.4: Car Parking Demand Surveys – Wednesday 24 February 2021



Aerial Observations

It is acknowledged that the surveyed date did not coincide with peak weekend activity within Patterson Reserve, due to a combination of Covid-19 pandemic disruptions and the time of year.

We have instead obtained aerial photographs prior to the Covid-19 pandemic disruptions on dates that indicate peak level activity. Saturday, August 31 2019, in particular depicts a busy snapshot of activity in Patterson Reserve where each of the key areas within the reserve depict a high level of activity, as illustrated in the figures below.

The following notes are made with respect to car parking demand and occupancy:

- In the Robinson Road car park, 22 of the 27 public spaces were recorded occupied at 10am.
- The off-street parking area at the southern end of Patterson Reserve contained some 120 vacant car parking spaces at 10am, i.e the time of the photograph being taken.
- The on-street parking on Auburn Road was observed to be highly utilised. It is noted that there was a sporting fixture occurring within the John Gardiner Reserve at the time of the photograph which is likely to have contributed in part to this demand.

Figure 2.5: Velodrome Rider Activity and Patterson Road Car Park (31/08/19 – 10am)



Figure 2.6: Hockey Fields H1 and H2 Games and Spectator Activity (31/08/19 – 10am)



Figure 2.7: Farmers Market Activity and Southern Carpark (31/08/19 – 10am)

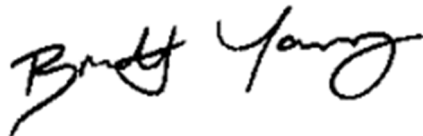


3 Conclusions

- The surveys indicate that the 27 public spaces within the Patterson Road car park are subject to moderate levels of demand, coincident with times when there are high activity levels within Patterson Reserve. This is largely limited to weekday evenings and weekends. A maximum demand of 23 spaces was recorded for these spaces throughout the survey periods.
- In the event that the Patterson Road car park was removed from the available supply, the surveys indicate that the 216 off-street public spaces located at the southern end of Patterson Reserve would readily cater for this displaced demand. In this regard, the peak activity levels observed from the August 31 2019 aerial photograph, when all activity areas were being utilised within the reserve, suggest there were at least 120 spaces available. This would readily cater for the maximum demand of 23 spaces recorded in the Patterson Road car park noting the southern car park is a convenient 5-minute walk to the hockey fields.
- Consideration should be made to the disabled parking space that is currently provided within the Patterson Road carpark. Ideally, this space would be retained or replaced in the event that the carpark was removed to cater for those with mobility requirements.
- There is sufficient capacity observed in the broader precinct at all times to cater for the parking demand that is currently accommodated in the Robinson Road car park. The removal of the Patterson Road car park would not have adverse parking impacts on the surrounding area.

Should you wish to discuss the above further, please contact the undersigned on 9429 3111.

Yours Sincerely

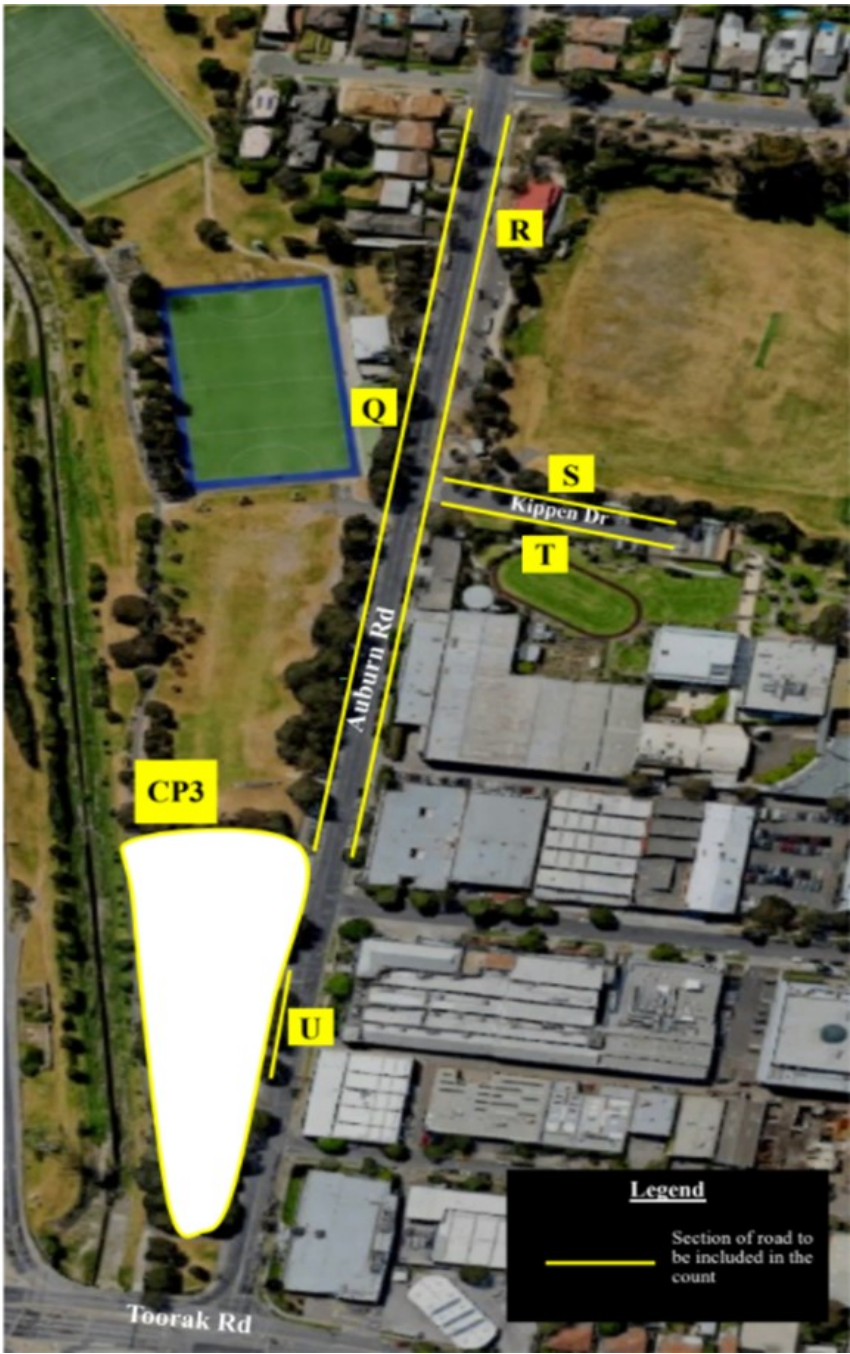


Brett Young
Director: Transport
Ratio Consultants

Appendix A Survey Results

TRANS TRAFFIC SURVEY

Map and Surveyed Area



Parking Bills St, Hawthorn - Binh TTS



Occupancy Survey

Wednesday, 24 February 2021
Bills St, Hawthorn
-37.838448, 145.040178
File
Ratio

Map Ref	Street	Section (GPS/Street Address if Off-Street Car Park)	Side	Restriction	Clear Way	Capacity	Parking Occupancy															
							7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00
A	Reserve Rd	From Robinson Rd To End	N	Unrestricted	No Stopping 8am-6pm Mon-Fri	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B			S	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
C	Robinson Rd	From Woodburn Rd To Reserve Rd	W	2P 8am-6pm Mon-Fri, 8am-6pm Sat		10	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	0
D			E	Unrestricted		3	0	2	3	3	2	2	1	2	3	3	3	3	0	0	0	0
E	Woodburn Rd	From Auburn Rd To Robinson Rd	N	No Stopping		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F			S	Unrestricted		16	5	12	10	9	9	10	14	15	16	16	14	10	3	3	1	0
G	Bills St	From Robinson Rd To Blockage	N	Permit Zone		12	0	5	2	0	0	0	0	2	7	4	0	0	0	0	0	0
H			S	Permit Zone		10	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
I		From Auburn Rd To Blockage	N	Unrestricted		6	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0
J	Heather Ct	From Auburn Rd To End	N	2P 8am-6pm Mon-Fri		11	0	0	0	1	1	1	0	1	1	1	0	1	1	1	0	2
K			S	2P 8am-6pm Mon-Fri		12	2	3	4	5	5	6	6	7	7	7	6	5	4	4	3	2
L	Auburn Rd	From Burgess St To Heather Ct	E	Unrestricted		7	1	2	2	1	2	2	1	0	0	0	0	0	0	0	0	0
M	Burgess St	From Auburn Rd To #19	N	2P 8am-6pm Mon-Fri, 8am-12pm Sat		8	0	0	0	1	1	1	1	1	0	0	0	1	2	1	0	0
N			S	Unrestricted	No Stopping 8am-9am, 3pm-4pm School Days	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
N				Unrestricted		12	7	8	9	10	10	11	12	12	12	12	11	7	3	3	3	2
O		From Auburn Rd To End	N	Permit Zone 8am-6pm Mon-Fri, 9am-8pm Sat&Sun		6	0	1	2	3	3	3	3	3	3	3	2	2	2	2	1	0
P			S	2P 8am-6pm Mon-Fri, 9am-8pm Sat&Sun		6	0	0	0	1	2	1	0	0	0	0	0	2	4	4	3	2
Q	Auburn Rd	From Cp3 To Burgess St	W	Unrestricted		52	4	19	21	21	21	21	22	22	21	19	23	26	24	15	3	
				3P Disabled		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				P 5mins 8am-9am, P 10mins 3pm-4:15pm School Days		6	1	5	3	0	0	0	0	2	6	4	2	3	5	5	2	0
R	Auburn Rd	From Burgess St To Calo St	E	Unrestricted		23	9	10	11	11	11	11	12	12	12	11	9	7	4	4	3	2
				P 5mins 8am-9am, P 10mins 3pm-4pm School Days		12	2	10	4	2	0	0	2	8	12	10	5	2	4	2	0	0
				1P 9am-3:30pm Mon-Fri	No Stopping 7am-9am, 3:30pm-6:30pm Mon-Fri	10	0	0	0	0	0	1	1	2	2	1	0	0	0	0	0	0
S	Kippen Dr	From Auburn Rd To End	N	2P 8am-5pm Mon-Fri		20	4	20	8	7	7	7	7	8	20	17	6	11	16	14	12	8
				P Disabled		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
T		From Auburn Rd To End	S	Unrestricted	No Parking 7:30am-9am	4	0	0	0	4	4	4	4	4	4	4	3	2	0	0	0	0
U	Auburn Rd	From Cp3 To Cp3	W	Unrestricted		5	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
CP1	Patterson Road OSCP			2P		27	1	10	7	4	5	6	7	5	15	8	6	13	22	20	12	5
CP1	Patterson Road OSCP			Permit Zone		11	0	0	0	0	0	0	1	1	1	1	2	3	3	1	0	
CP1	Patterson Road OSCP			P Disabled		1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CP2	Unknown			Locked		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CP3	North of Auburn OSCP			P Disabled		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CP3	North of Auburn OSCP			Unrestricted		211	32	116	130	140	140	145	150	156	161	100	84	22	4	4	3	2
PUBLIC CAPACITY							456	439	457	474	474	474	474	474	453	443	464	464	490	490	490	490
PUBLIC OCCUPANCIES							67	206	217	226	223	233	242	262	278	204	171	115	103	94	60	28
PUBLIC VACANCIES							389	233	240	248	251	241	232	212	175	239	293	349	387	396	430	462
PUBLIC % OCCUPANCIES							15%	47%	47%	48%	47%	49%	51%	55%	61%	46%	37%	25%	21%	19%	12%	6%

Parking Bills St, Hawthorn - Binh TTS



Occupancy Survey

Saturday, 20 February 2021
Bills St, Hawthorn
-37.836448, 145.040176
File
Ratio

Map Ref	Street	Section (GPS/Street Address if Off-Street Car Park)	Side	Restriction	Clear Way	Capacity	Parking Occupancy									
							11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	
A	Reserve Rd	From Robinson Rd To End	N	Unrestricted	No Stopping 8am-6pm Mon-Fri	10	0	0	0	0	0	0	0	0	0	
B			S	No Stopping		0	0	0	0	0	0	0	0	0	0	
C	Robinson Rd	From Woodburn Rd To Reserve Rd	W	2P 8am-8pm Mon-Fri, 8am-6pm Sat		10	0	0	1	2	1	0	0	0	2	
D			E	Unrestricted		3	0	1	1	0	0	0	1	1		
E	Woodburn Rd	From Auburn Rd To Robinson Rd	N	No Stopping		0	0	0	0	0	0	0	0	0	0	
F			S	Unrestricted		16	8	8	8	7	7	6	6	5	4	
G	Bills St	From Robinson Rd To Blockage	N	Permit Zone		12	0	2	1	0	1	1	1	0	0	
H			S	Permit Zone		10	0	1	1	0	1	2	1	0	1	
I		From Auburn Rd To Blockage	N	Unrestricted		6	0	0	0	0	0	0	0	0	0	
J	Heather Ct	From Auburn Rd To End	N	2P 8am-6pm Mon-Fri		11	4	4	4	4	4	3	3	2	0	
K			S	2P 8am-6pm Mon-Fri		12	4	5	5	4	4	3	3	2	2	
L	Auburn Rd	From Burgess St To Heather Ct	E	Unrestricted		7	7	7	7	6	6	5	5	4	3	
M	Burgess St	From Auburn Rd To #19	N	2P 8am-6pm Mon-Fri, 8am-12pm Sat		8	6	7	7	6	5	4	4	3	3	
N			S	Unrestricted	No Stopping 8am-9am,3pm-4pm School Days	3	0	0	0	0	0	0	0	0	0	
N				Unrestricted		12	3	3	3	3	3	2	1	0	2	
O		From Auburn Rd To End	N	Permit Zone 8am-6pm Mon-Fri, 9am-8pm Sat&Sun		6	4	5	5	5	5	4	4	3	2	
P			S	2P 8am-6pm Mon-Fri, 9am-8pm Sat&Sun		6	5	6	6	5	5	4	4	3	2	
Q	Auburn Rd	From Cp3 To Burgess St	W	Unrestricted		52	0	0	1	2	1	0	0	0	0	
				3P Disabled		2	0	0	0	0	0	0	0	0	0	
				P 5mins 8am-9am, P 10mins 3pm-4:15pm School Days		6	1	0	1	2	2	1	1	0	0	
R	Auburn Rd	From Burgess St To Cato St	E	Unrestricted		23	0	0	1	1	1	1	1	0	0	
				P 5mins 8am-9am, P 10mins 3pm-4pm School Days		12	0	0	0	0	0	0	0	0	0	
				1P 9am-3:30pm Mon-Fri	No Stopping 7am-9am,3:30pm-6:30pm Mon-Fri	10	0	0	0	0	0	0	0	0	0	
S	Kippen Dr	From Auburn Rd To End	N	2P 8am-5pm Mon-Fri		20	0	0	0	0	0	0	0	0	0	
				P Disabled		2	0	0	0	0	0	0	0	0	0	
T		From Auburn Rd To End	S	Unrestricted	No Parking 7:30am-9am	4	0	0	0	0	0	0	0	0	0	
U	Auburn Rd	From Cp3 To Cp3	W	Unrestricted		5	0	0	0	0	0	1	2	2	1	
CP1				2P		27	0	0	1	2	1	1	1	1	0	
				Permit Zone		11	1	2	1	0	0	0	0	0	0	
				P Disabled		1	0	0	0	0	0	0	0	0	0	
CP2				Locked		0	0	0	0	0	0	0	0	0	0	
CP3				P Disabled		5	0	1	1	0	0	0	0	0	0	
				Unrestricted		211	10	11	11	10	9	8	7	6	5	
PUBLIC CAPACITY							468	468	468	468	468	468	468	468	468	
PUBLIC OCCUPANCIES							48	53	58	54	50	40	39	28	24	
PUBLIC VACANCIES							420	415	410	414	418	428	429	440	444	
PUBLIC % OCCUPANCIES							10%	11%	12%	12%	11%	9%	8%	6%	5%	

not available for public parking