
T CLARKE & SON LTD
PROPOSED RESIDENTIAL DWELLINGS
MACNAGHTEN ROAD, SOUTHAMPTON
TN01 – ON-STREET PARKING ASSESSMENT
4TH JUNE 2024

1.0 Introduction

- 1.1 Connect Consultants Limited is a firm of transport planning and highway design consultants who have been instructed in relation to proposed residential dwellings on Macnaghten Road in Southampton.
- 1.2 The proposals include the removal of the existing commercial units, which are currently vacant, and the construction of 6no. semi-detached 3-bedroom houses. Each dwelling will be fronted by 2 dedicated off-street parking spaces, accessed from Macnaghten Road.
- 1.3 The relevant parking standards are set out in the Southampton City Council (SCC) document 'Parking Standards Supplementary Planning Document' (adopted September 2011) and indicate a maximum provision of 2 spaces for a 3-bedroom house. Therefore, the proposed provision of 2 spaces per dwelling accords with local standards.
- 1.4 A planning application for the proposed development was submitted to SCC on 13th February 2024, with the planning decision currently pending (LPA reference 24/00132/FUL).
- 1.5 SCC requested that an on-street parking survey should be undertaken, based on the Lambeth methodology, in order to demonstrate that the proposals will not result in additional pressure on the existing on-street parking.
- 1.6 This Technical Note (TN01) presents an assessment of the potential parking demand of the proposed development, assessed against the surveyed capacity of the surrounding on-street parking infrastructure.

2.0 Parking Demand

- 2.1 The potential parking demand of the proposed development has been informed by Census car ownership data extracted from the 2011 and 2021 datasets.
- 2.2 The 2011 data has been extracted from the ONS dataset '*CT0103 - Accommodation type by tenure by number of rooms by car or van availability*' for the ward in which the site is located, Bitterne Park, based on houses/bungalows with all types of tenure and with 5 rooms (the definition of a room in this case does not include bathrooms, toilets, halls or landings, or rooms that can only be used for storage. All other rooms, for example, kitchens, living rooms, bedrooms, utility rooms, studies and conservatories are counted). The data is disaggregated by households with no cars, one car, two cars, or three or more cars.

- 2.3 There is not a 2021 version of the dataset above, and so the ONS dataset '*RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household*' has been used as a close comparator. The 2021 data includes the number of houses/bungalows in Bitterne Park that have either no cars, one car, or two or more cars. The data is not disaggregated by number of rooms.
- 2.4 Although the 2021 dataset is the most recent version of the Census, it was recorded during Covid and so car ownership may have been disproportionately lower due to the prevalence of homeworking and financial uncertainty.
- 2.5 The 2011 dataset is representative of the size of the proposed dwellings given that it includes the number of rooms as a metric. The 2021 dataset in this regard is less precise in its representation of car ownership as all houses are included regardless of size, but it means that a greater sample size is used.
- 2.6 Table 1 below shows the number of households within Bitterne Park that have no cars, one car, two cars (two or more cars for Census 2021), or three or more cars (Census 2011 only), from which the approximate demand has been calculated, and then the number of cars per household (car ownership) has been calculated by dividing the total households by the total car demand.

Table 1 – Census Car Ownership

Dataset		No Cars	1 Car	2 Cars	3+ Cars	Total	Cars per HH (car ownership)
Census 2011	Households	158	490	371	63	1,082	1.31
	Demand	0	490	742	189	1,421	
Census 2021	Households	416	1,657	1,838	-	3,911	1.36
	Demand	0	1,657	3,676	-	5,333	

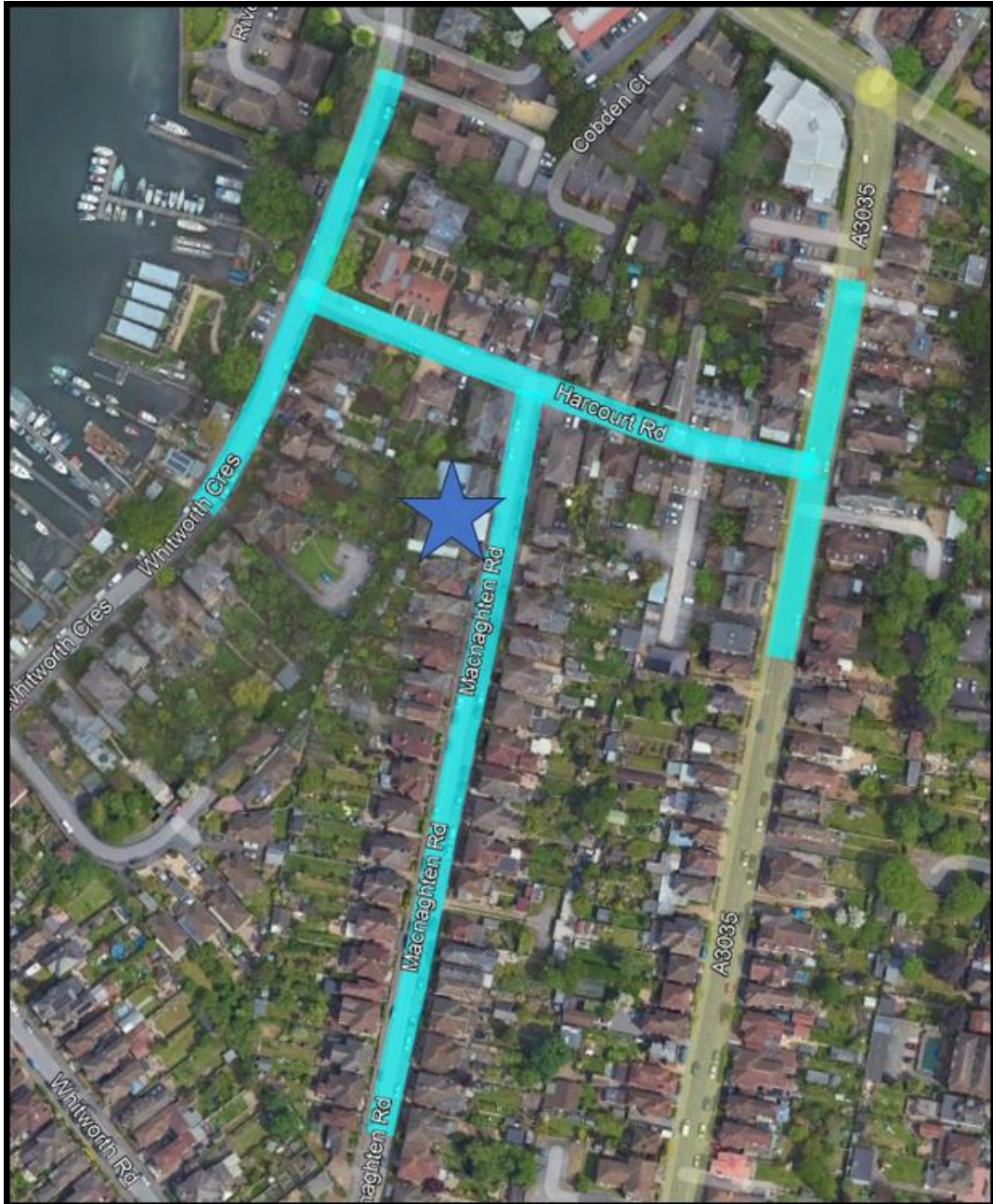
- 2.7 The Census 2021 demand is likely to be a slight underestimate as the 3+ category is not included in the dataset and so households with more than two cars are calculated as having two cars. However, as demonstrated by the 2011 data, the number of households with 5 rooms and more than two cars is likely to be minimal.
- 2.8 The similar levels of car ownership add credence to the reliability of the datasets.
- 2.9 The Census data indicates a car ownership of 1.31-1.36 cars per household, which can be accommodated by the proposed 2 spaces per dwelling. Therefore, the proposed houses are unlikely to result in additional demand on the local on-street parking infrastructure.
- 2.10 Furthermore, it is likely that future residents will not be wholly reliant on the car for regular travel given the site's high level of non-car accessibility, as explained below.

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- 2.11 The site is within reasonable walking and cycling distance of a range of amenities, facilities and employment sites. A Tesco Express is located a short distance north of the site on the A3035 and a larger Sainsbury's supermarket is situated west of Cobden Bridge. A range of retail attractions are concentrated in Bitterne Village approximately 1.5km southeast of the site. Nearby schools include Charlton House to the east and Bitterne Park primary and secondary schools to the north. The parks of Deep Dene and Riverside are also located within walking distance of the site. Employment sites within the local area include the industrial / commercial uses flanking the River Itchen, west of the site.
 - 2.12 Cycle travel would be encouraged through access of National Cycle Route 23 north of the site via the A3035 and Local Cycle S4 south of the site via the A3024 Bitterne Road West, as well as by a surrounding network of local roads conducive to cycling.
 - 2.13 The nearest bus stops to the site are located on the A3035 Cobden Avenue to the north and the A3024 Bitterne Road West to the south, which provide frequent Monday-Sunday services to a range of destinations across Southampton, including the city centre.
 - 2.14 Bitterne Station is situated c.350m walking distance south of the site. The station serves routes on the South Western line, which includes destinations between Southampton Central and Portsmouth & Southsea.
 - 2.15 Given that the site is within walking/cycling distance of a range of amenities, facilities and employment sites and that there are options for regular non-car travel, it is likely that future residents will choose to live a car-free or low car use lifestyle, thereby reducing the likelihood of excess demand on the local parking infrastructure.
 - 2.16 Nevertheless, since the proposed development includes dropped-kerb accesses to the on-site parking, comprising a total length of approximately 22m where there is currently unrestricted on-street parking, a parking stress assessment of the roads local to the site has been undertaken at the request of SCC.

3.0 Parking Stress Assessment

- 3.1 As requested by SCC, an on-street parking stress survey has been undertaken in accordance with the guidelines set out in the Lambeth Council Parking Survey Guidance Note (2021).
- 3.2 All public roads within 200m walking distance of the site have been surveyed and their parking capacities (i.e. number of viable parking spaces) have been approximated by measuring the lengths of sections between obstructions (e.g. crossovers, double yellow lines, etc.), divided by 5 and rounded down.
- 3.3 The surveyed roads are identified at Figure 1 below. The proposal site is denoted by a blue star.

Figure 1 – Surveyed Roads



- 3.4 The survey took the form of a beat count undertaken during the period of maximum demand (overnight between 00:30-05:30) on Wednesday 15th May and Thursday 16th May 2024. The parking stress on each road has then been calculated as the number of recorded parked vehicles (occupancy) divided by the road's parking capacity.
- 3.5 The raw survey data is provided at Appendix 1, which also provides plans of the surveyed roads showing the sections of unrestricted and restricted parking, and the locations of surveyed parked vehicles.
- 3.6 Table 2 below shows the total capacity of unrestricted parking (i.e. sections of road with no parking restrictions) and the observed occupancies within those sections on each road across both of the survey days.

Table 2 – Unrestricted Parking Occupancy – Bitterne Park

Road	Capacity	Wed 15 May 2024		Thu 16 May 2024	
		Occupancy	Available Spaces	Occupancy	Available Spaces
Harcourt Road	24	21	3	16	8
A3035 Bullar Road	8	8	0	8	0
Macnaghten Road	72	71	1	70	2
Whitworth Crescent	29	20	9	17	12

- 3.7 The survey results for Harcourt Road indicate 3 spare spaces on 15th May and 8 spare spaces on 16th May. No spare capacity was surveyed on the section on the A3035 Bullar Road. Macnaghten Road, on which the site is situated, exhibited one spare space on 15th May and 2 spare spaces on 16th May. Whitworth Crescent exhibited 9 spare spaces on 15th May and 12 spare spaces on 16th May.
- 3.8 The proposals include the creation of new frontage accesses to the proposed on-site parking, which includes a total length of approximately 22m where there is currently unrestricted on-street parking. In other words, it will result in the displacement of up to 4 parking spaces based on the Lambeth methodology calculation.
- 3.9 The parking survey data indicates that there is sufficient existing on-street parking capacity on the roads within 200m of the site to accommodate the 4 spaces displaced by the proposed development.

4.0 Conclusions

- 4.1 The proposed 2 dedicated parking spaces per dwelling accords with the SCC parking standards.
- 4.2 2011 and 2021 Census data indicates a local car ownership level of 1.31-1.36 cars per household, which can be accommodated by the proposed 2 dedicated spaces per dwelling.
- 4.3 Due to the site’s high level of non-car accessibility, residents have realistic opportunities to live a car-free or low car use lifestyles, thereby reducing the demand on the local parking infrastructure.
- 4.4 The proposal will result in the displacement of up to 4 existing parking spaces along the site’s frontage, which may cause inconvenience to some local residents if they are accustomed to parking in this location.
- 4.5 The parking survey undertaken overnight on Wednesday 15th May and Thursday 16th May 2024 indicates that there is enough residual capacity on the surrounding roads within 200m of the site to accommodate the displaced on-street parking provision.

Appendix 1 – Raw Survey Data

Parking Beat Survey

Macnaghten Road, Southampton



Wednesday 15th May 2024

Thursday 16th May 2024



Created by Bert Ramos

SURVEY DETAILS

Survey Type	PARKING BEAT SURVEY	
Methodology	London Borough of Lambeth	
Guidance	London Borough of Lambeth	
Site	Macnaghten Road, Southampton	
Survey Area	As advised by client	
Date/s	Wednesday 15th May 2024	Thursday 16th May 2024
Time/s	00:30 - 05:30hrs	00:30 - 05:30hrs
Beat Frequency	Snapshot	
Unit for 1 Unmarked Lengthwise Space (m)	5	
Unit for 1 Unmarked Crosswise Space (m)	2.5	
Areas Excluded From Survey	Private parking spaces, private roads and off road parking (unless requested in survey specification).	
Sections of road excluded from parking capacity calculation	<p>First 7.5m from junction mouth (for reasons of highway safety). Crossovers, dropped kerbs, build-outs, traffic islands, 24/7 illegal parking.</p> <p>Sections of legal lengthwise parking between illegal parking (crossover, dropped kerbs, double yellow etc) that measure less than the unit specified for 1 space.</p> <p>Where the width of the road is such that parking on both sides would cause an obstruction. In this instance one side of the road has been excluded from the capacity calculation.</p>	
Parking excluded from stress calculation	<p>Skips or any other non-vehicle occupying a parking space (but noted separately if observed).</p> <p>Any illegal parking on double yellow lines, crossovers, keep clear lines etc (but noted separately if observed).</p>	
Terminology	<p>"Parking Stress" - Calculation to express the number of parked vehicles as a percentage of available parking for each parking type. Stress can be over 100% if cars are small and/or parked very closely together.</p> <p>"Parking Capacity Calculation" - Measurement of each length of road between illegal parking (e.g. crossovers, traffic islands, double yellow etc) converted into parking spaces by rounding down to the nearest unit assigned to one parking space and dividing this figure by the unit.</p> <p>"Lengthwise Parking" - Vehicles parked in a lengthwise orientation with wheels parallel to the kerbside.</p> <p>"Crosswise Parking" - Vehicles parked in a crosswise orientation (as seen in car parks or wide sections of road)</p>	

Area Map
Macnaghten Road, Southampton
15/05/2024
00:30 - 05:30

Unrestricted Parking

Unrestricted Kerb

Restricted Parking

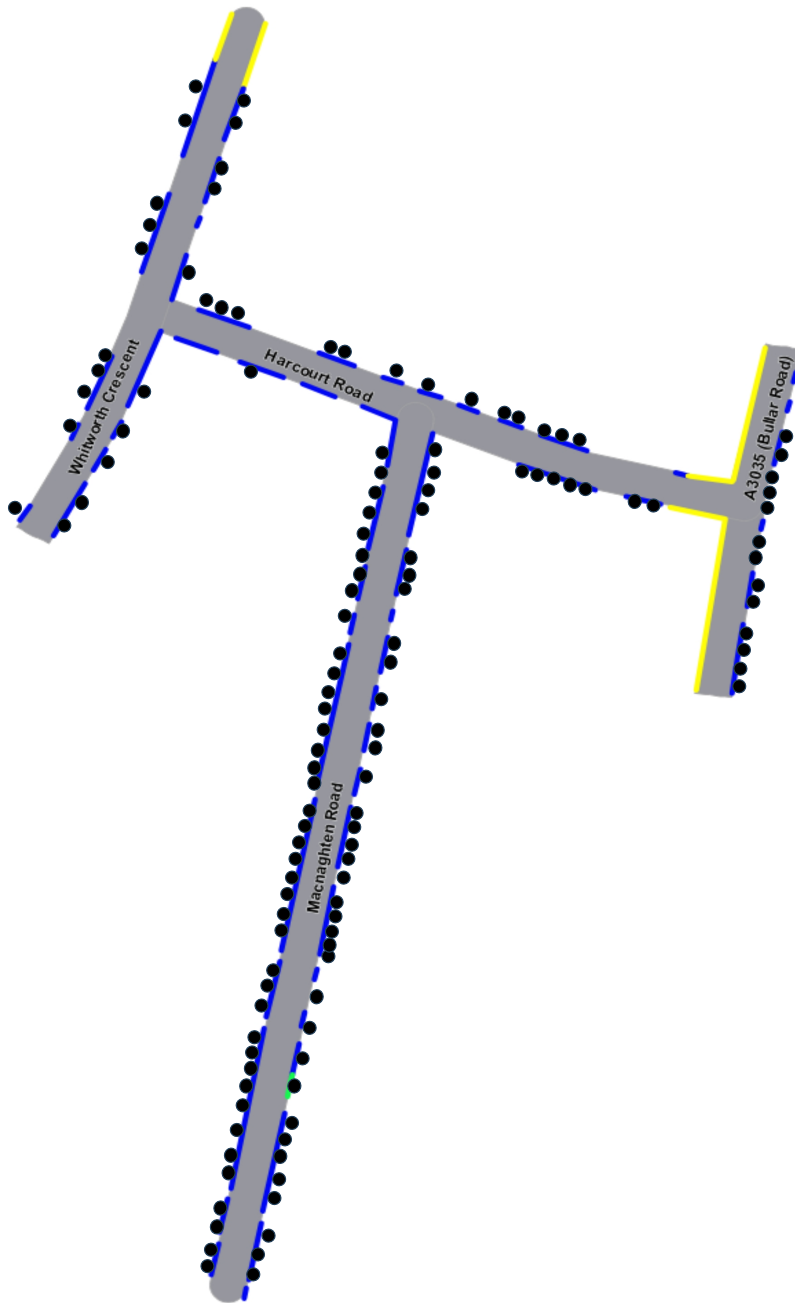
Disabled Parking

No Parking

Double Yellow Lines

Vehicles

Parked Vehicles



Area Map
Macnaghten Road, Southampton
16/05/2024
00:30 - 05:30

Unrestricted Parking

Unrestricted Kerb

Restricted Parking

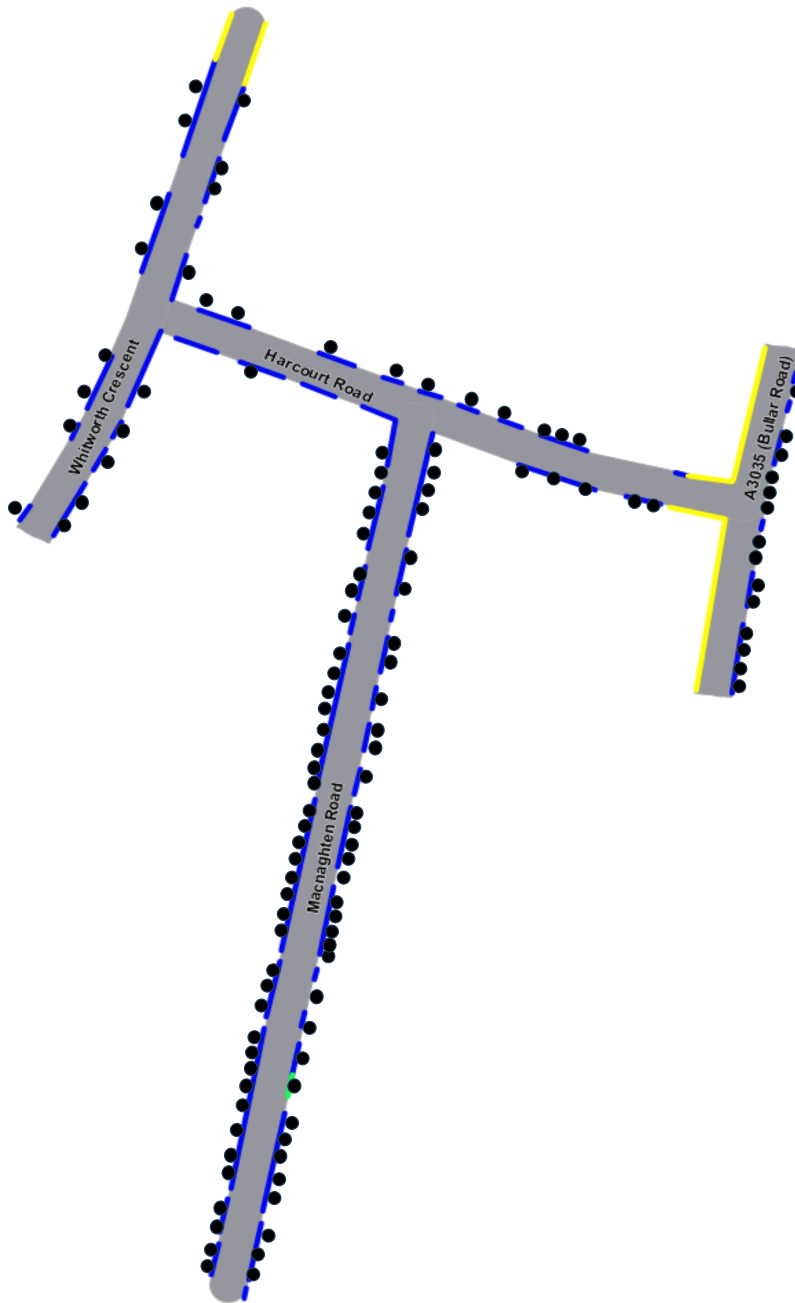
Disabled Parking

No Parking

Double Yellow Lines

Vehicles

Parked Vehicles



PARKING STRESS TABLES

Restriction 1					Unrestricted					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	Wednesday 15th May 2024			Thursday 16th May 2024		
					00:30 - 05:30hrs			00:30 - 05:30hrs		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Harcourt Road	120	24	0	24	21	3	88%	16	8	67%
A3035 (Bullar Road)	40	8	0	8	8	0	100%	8	0	100%
Macnaghten Road	360	72	0	72	71	1	99%	70	2	97%
Whitworth Crescent	145	29	0	29	20	9	69%	17	12	59%
Total	665	133	0	133	120	13	90%	111	22	83%

Restriction 2					Disabled Parking					
Location	Lengthwise Parking (m)	Lengthwise Spaces	Marked/Crosswise Bays	Total Spaces	Wednesday 15th May 2024			Thursday 16th May 2024		
					00:30 - 05:30hrs			00:30 - 05:30hrs		
					Occupied	Spaces	Stress (%)	Occupied	Spaces	Stress (%)
Macnaghten Road	5	1	0	1	1	0	100%	1	0	100%
Total	5	1	0	1	1	0	100%	1	0	100%

Illegal/Obstructive Parking

Location	Description	Wednesday 15th May 2024		Thursday 16th May 2024	
		00:30 - 05:30hrs		00:30 - 05:30hrs	
		Occupied		Occupied	
A3035 (Bullar Road)	Crossover	5		6	
Macnaghten Road	Crossover	4		3	
Total		9		9	

PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road & Measuring Orientation	Parking Type	Section Length (m)	Crosswise Spaces or Lengthwise Marked Bays	Number of Crosswise Space or Marked Bays	Unit Round Down (If Lengthwise & Unmarked)	Total Spaces
Harcourt Road	N W-E	Crossover	7.3			5	1
Harcourt Road	N W-E	Unrestricted	15.8			15	3
Harcourt Road	N W-E	Crossover	20.7			20	4
Harcourt Road	N W-E	Unrestricted	10.1			10	2
Harcourt Road	N W-E	Crossover	7.4			5	1
Harcourt Road	N W-E	Unrestricted	5.3			5	1
Harcourt Road	N W-E	Crossover	5.6			5	1
Harcourt Road	N W-E	Unrestricted	6.9			5	1
Harcourt Road	N W-E	Crossover	6.8			5	1
Harcourt Road	N W-E	Unrestricted	5.5			5	1
Harcourt Road	N W-E	Crossover	6.8			5	1
Harcourt Road	N W-E	Unrestricted	6.2			5	1
Harcourt Road	N W-E	Crossover	6.2			5	1
Harcourt Road	N W-E	Unrestricted	13.2			10	2
Harcourt Road	N W-E	Crossover	28.6			25	5
Harcourt Road	N W-E	Unrestricted	2			0	0
Harcourt Road	N W-E	Double Yellow Lines	15.7			15	3
A3035 (Bullar Road)	W S-N	Double Yellow Lines	39.5			35	7
A3035 (Bullar Road)	E N-S	Crossover	6.2			5	1
A3035 (Bullar Road)	E N-S	Unrestricted	2.8			0	0
A3035 (Bullar Road)	E N-S	Crossover	6.5			5	1
A3035 (Bullar Road)	E N-S	Unrestricted	2.1			0	0
A3035 (Bullar Road)	E N-S	Crossover	9.3			5	1
A3035 (Bullar Road)	E N-S	Unrestricted	10.3			10	2
A3035 (Bullar Road)	E N-S	Crossover	16			15	3
A3035 (Bullar Road)	E N-S	Unrestricted	2.7			0	0
A3035 (Bullar Road)	E N-S	Crossover	9.3			5	1
A3035 (Bullar Road)	E N-S	Unrestricted	10.2			10	2
A3035 (Bullar Road)	E N-S	Crossover	5.6			5	1
A3035 (Bullar Road)	E N-S	Unrestricted	20.3			20	4
A3035 (Bullar Road)	W S-N	Double Yellow Lines	50.4			50	10
Harcourt Road	S E-W	Double Yellow Lines	15.2			15	3
Harcourt Road	S E-W	Crossover	3.2			0	0
Harcourt Road	S E-W	Unrestricted	10.3			10	2
Harcourt Road	S E-W	Crossover	9.9			5	1
Harcourt Road	S E-W	Unrestricted	22.2			20	4
Harcourt Road	S E-W	Crossover	25.7			25	5
Macnaghten Road	E N-S	Unrestricted	30.1			30	6
Macnaghten Road	E N-S	Crossover	4.6			0	0
Macnaghten Road	E N-S	Unrestricted	13			10	2
Macnaghten Road	E N-S	Crossover	4.1			0	0
Macnaghten Road	E N-S	Unrestricted	2.9			0	0
Macnaghten Road	E N-S	Crossover	8.3			5	1
Macnaghten Road	E N-S	Unrestricted	10.4			10	2
Macnaghten Road	E N-S	Crossover	4.7			0	0
Macnaghten Road	E N-S	Unrestricted	6.5			5	1
Macnaghten Road	E N-S	Crossover	4.7			0	0
Macnaghten Road	E N-S	Unrestricted	7.4			5	1
Macnaghten Road	E N-S	Crossover	5.3			5	1
Macnaghten Road	E N-S	Unrestricted	7.4			5	1

Macnaghten Road	E N-S	Crossover	4.6			0	0
Macnaghten Road	E N-S	Unrestricted	17.7			15	3
Macnaghten Road	E N-S	Crossover	4.7			0	0
Macnaghten Road	E N-S	Unrestricted	20.6			20	4
Macnaghten Road	E N-S	Crossover	4.6			0	0
Macnaghten Road	E N-S	Unrestricted	3.6			0	0
Macnaghten Road	E N-S	Crossover	12.3			10	2
Macnaghten Road	E N-S	Unrestricted	3.7			0	0
Macnaghten Road	E N-S	Crossover	5.2			5	1
Macnaghten Road	E N-S	Unrestricted	10.1			10	2
Macnaghten Road	E N-S	Disabled Parking	5.6			5	1
Macnaghten Road	E N-S	Crossover	3.4			0	0
Macnaghten Road	E N-S	Unrestricted	33.5			30	6
Macnaghten Road	E N-S	Crossover	4.7			0	0
Macnaghten Road	E N-S	Unrestricted	19.1			15	3
Macnaghten Road	E N-S	Crossover	4.7			0	0
Macnaghten Road	E N-S	Unrestricted	2.5			0	0
Macnaghten Road	E N-S	Crossover	2.7			0	0
Macnaghten Road	W S-N	Crossover	10.1			10	2
Macnaghten Road	W S-N	Unrestricted	10.1			10	2
Macnaghten Road	W S-N	Crossover	2.8			0	0
Macnaghten Road	W S-N	Unrestricted	10.2			10	2
Macnaghten Road	W S-N	Crossover	2.9			0	0
Macnaghten Road	W S-N	Unrestricted	47.1			45	9
Macnaghten Road	W S-N	Crossover	6.5			5	1
Macnaghten Road	W S-N	Unrestricted	16.7			15	3
Macnaghten Road	W S-N	Crossover	4.6			0	0
Macnaghten Road	W S-N	Unrestricted	45.1			45	9
Macnaghten Road	W S-N	Crossover	5.2			5	1
Macnaghten Road	W S-N	Unrestricted	42.3			40	8
Macnaghten Road	W S-N	Crossover	4.8			0	0
Macnaghten Road	W S-N	Unrestricted	5.6			5	1
Macnaghten Road	W S-N	Crossover	6.8			5	1
Macnaghten Road	W S-N	Unrestricted	10.2			10	2
Macnaghten Road	W S-N	Crossover	5.2			5	1
Macnaghten Road	W S-N	Unrestricted	18.2			15	3
Macnaghten Road	W S-N	Crossover	6.6			5	1
Macnaghten Road	W S-N	Unrestricted	13.1			10	2
Harcourt Road	S E-W	Junction	17.2			15	3
Harcourt Road	S E-W	Unrestricted	11.5			10	2
Harcourt Road	S E-W	Crossover	7.4			5	1
Harcourt Road	S E-W	Unrestricted	9.5			5	1
Harcourt Road	S E-W	Crossover	4.7			0	0
Harcourt Road	S E-W	Unrestricted	13			10	2
Harcourt Road	S E-W	Crossover	6.5			5	1
Harcourt Road	S E-W	Unrestricted	12.3			10	2
Harcourt Road	S E-W	Crossover	7.1			5	1
Whitworth Crescent	E N-S	Unrestricted	23.3			20	4
Whitworth Crescent	E N-S	Crossover	4.6			0	0
Whitworth Crescent	E N-S	Unrestricted	5.4			5	1
Whitworth Crescent	E N-S	Crossover	4			0	0
Whitworth Crescent	E N-S	Unrestricted	7.5			5	1
Whitworth Crescent	E N-S	Crossover	4.7			0	0
Whitworth Crescent	E N-S	Unrestricted	17.4			15	3
Whitworth Crescent	W S-N	Unrestricted	4.6			0	0

Whitworth Crescent	W S-N	Crossover	18.6			15	3
Whitworth Crescent	W S-N	Unrestricted	3.8			0	0
Whitworth Crescent	W S-N	Crossover	6.5			5	1
Whitworth Crescent	W S-N	Unrestricted	16.7			15	3
Whitworth Crescent	W S-N	Crossover	23.2			20	4
Whitworth Crescent	W S-N	Unrestricted	23.2			20	4
Whitworth Crescent	W S-N	Crossover	11.2			10	2
Whitworth Crescent	W S-N	Unrestricted	30.9			30	6
Whitworth Crescent	W S-N	Double Yellow Lines	17.5			15	3
Whitworth Crescent	E N-S	Double Yellow Lines	19.1			15	3
Whitworth Crescent	E N-S	Unrestricted	15.4			15	3
Whitworth Crescent	E N-S	Crossover	5.6			5	1
Whitworth Crescent	E N-S	Unrestricted	13.1			10	2
Whitworth Crescent	E N-S	Crossover	4.6			0	0
Whitworth Crescent	E N-S	Unrestricted	2.9			0	0
Whitworth Crescent	E N-S	Crossover	9.3			5	1
Whitworth Crescent	E N-S	Unrestricted	13.9			10	2