



Reference: 20.374r03v05

8 March 2021

SJB Planning
Level 2, 490 Crown Street
SURRY HILLS NSW 2010

Attention: Mr Michael Baker

**Re: Kogarah War Memorial Pool (DA2020/0405) – 78 Carwar Avenue, Carss Park
Response to Request for Additional Information**

Dear Michael,

We refer to the development application (DA2020/0405) relating to the proposed demolition, remediation and landscaping works for Kogarah War Memorial Pool at 78 Carwar Avenue, Carss Park. TRAFFIX has been forwarded comments from the Georges River Council concerning the proposal as contained within Council letter, dated 3 February 2021.

TRAFFIX has reviewed all relevant comments and has responded to each issue below. This is with reference to the following reports:

- Traffic and Parking Impact Assessment report (Reference: 20.374r01v02, dated 25 September 2020); and
- Construction Traffic Management Plan (Reference: 20.374r02v02, dated 25 September 2020).

) **Council Comments**

The Georges River Council has provided comments in relation to the proposal as contained within Council letter DA2020/0405, dated 3 February 2021, with the relevant comments stated below:

Traffic and Parking

The provided Traffix Report has been reviewed by the external traffic specialists engaged by Council. The review of this report has identified that the following matters require further attention as the report:

- a) Does not determine the estimated traffic and parking demand associated with the proposed development. Whilst this is the case, the traffic and parking demand associated with the proposed development is likely to be less than that already approved at the subject site.*



- b) Does not provide a detailed assessment with regard to the traffic and parking impacts associated with the construction of the site.
- c) Raises numerous concerns due to the limited detail within the report, specifically relating to parking demand including, but not limited to, the following:
 - i. Was the subject site vacant during the parking survey period?
 - ii. Was the adjacent sports field in use during the parking survey period and to what extent was the park in use?
 - iii. Why was the Father's Day weekend surveyed and what evidence can be provided to suggest the Saturday weekend parking demand survey was higher than usual?
- d) The suggestion that the months March to August reflect reduced car parking demand within the area is unfounded within the report.
- e) Does not provide the parking survey data within the report.
- f) There is no consideration within the Traffix Report as to whether vehicular access to the Carrs Bush Park Hill Parking is appropriate and safe for the general public during the construction period, or whether traffic management measures will be implemented to ensure access to the car park operates safely.
- g) Relies upon aerial imagery to justify that the observed weekend parking demand is overestimated on weekends compared to the months between April to August. This is completely inappropriate, and the aerial images relied upon do not reflect the actual dates stated.
- h) Is unclear in whether the parking demands generated by the men's shed have formed part of the assessment of the proposal.

It is noted that the assessing traffic engineer further notes that as a result of the construction of the site and removal of 83 car parking spaces, there is likely to be overflow outside the parking survey area to surrounding local streets.

A revised report is required to address the matters identified above.

If the addressing of the outlined issues results in changes to the findings of the report, amended documentation may also be required.

) **TRAFFIX Response**

Item A

The consideration of this issue needs to be viewed in the context where open space areas generate peak activity levels during the day and do not coincide with commuter peak periods, such that trip rates are moderated by low background traffic volumes on the network.

This is likely one reason that the RMS Guideline 2002 and RMS TDT 2013 do not specify traffic generation rates for a community/park open space areas. It is noted that the community/park open space areas comprises many different uses which have a high degree of interaction. The proposed open space area has an approximate area of 9,740m² (minus car park) and will form part of the existing Carrs Park area with an approximate area of 160,000m² (minus bushland area for a conservative assessment).

The proposed open space area represents approximately 6% of the total Carrs Park area. It is emphasised that this is an established recreational area with existing picnic facilities, beach, bush walks, exercise and sporting facilities, St Georges Men Shed, playground and other recreational uses. As such, the anticipated traffic generation of the proposed open space area is in the order of 6% of



the existing overall trip generation. This is expected to be minimal with negligible traffic impacts on the surrounding area.

In summary, traffic impacts associated with this use are manageable and able to be accommodated on the road network and carpark following completion of work.

Item B

Reference should be made to the CTMP prepared for the development (Reference 20.374r02v02, dated 25/09/2020), which detailed the traffic and parking impacts associated with the proposed construction works, being:

- Section 4.3 An average volume of 20 trucks per day (20 in, 20 out). This anticipated volume equates to 2-3 trucks per hour, therefore considered minor and will have negligible impacts on the surrounding amenities and road network; and
- Section 5.5 Construction workers utilising the Carss Park Flats parking area during the construction period, which is considered appropriate, given the minimal number of workers anticipated on-site (15 workers at any given time).

As noted within the Traffic and Parking Impact Assessment, 83 car parking spaces (80 within the Carss Park Flat carpark and 3 along Carwar Avenue for construction vehicle egress manoeuvres) will be closed to the general public during the construction period. It is understood that no construction works and construction traffic will be carried out on weekends, with the Carss Park Flats car park area to remain closed to the public during the short-term construction period (3-4 months). The 3 spaces along Carwar Avenue can be utilised during the weekend periods. Reference should be made to the Site Plan in **Figure 1**, which identifies the parking utilisations during the construction period.

In addition to the above, an off-street car park area (accommodates approximately 60 spaces) is proposed to be provided on weekends via a temporary at-grade car park north of Carlton Crescent adjacent to Kogarah Bay Creek. The critical car parking survey on Saturday, 5 September 2020 showed that the peak parking demand occurred at 2:30pm with 18 vacant spaces only occurring for a maximum of 30 minutes with all other demand periods having 24 vacant spaces or more. As a result, the proposed temporary car park and the utilisation of the existing car parking areas are considered sufficient to cater for the parking demands associated with the closure of the Carss Park Flats car park. Reference should be made to the reduced plans for the temporary car park area provided in **Attachment 1**.



Figure 1: Parking Provisions and Utilisation during Construction Stages



Item C

- i. The Kogarah War Memorial Pool has been closed since July 2019. The parking surveys were conducted between 02/09/2020 and 05/09/2020. As a result, the subject site was vacant during the parking survey period.
- ii. It has been confirmed by Georges River Council that the adjacent sports field was being utilised during the survey period on 05/09/2020 by St George Football.
- iii. The Saturday parking survey was conducted on Father's Day weekend (05/09/2020), which is envisaged to have an increased number of traffic and parked vehicles, given the following:
 - In accordance with the Australian Bureau of Meteorology, the survey was conducted during relatively good weather, being:
 - Temperature of 16.2°C at 9am and 21.6°C at 3pm; and
 - 9.8 hours of sunlight recorded throughout the day.

This good weather in conjunction with Father's Day are envisaged to result in an increased number of parked vehicles utilising the car park area at the time of the survey; and

- A permanent RMS traffic counter near the vicinity of the site (King Georges Road 40041) recorded the Saturday 2020 traffic volumes during the time of the survey, as shown in **Chart 1**.

Chart 1: Saturday 2020 Traffic Volumes



It can be seen from **Chart 1** that traffic volumes near the vicinity of the site increased on the day of the survey, noting reduced volumes two (2) weeks before and after the survey date. Accordingly, the parking survey is considered conservative, with traffic and parking envisaged to be increased during the surveyed period.

Item D

In accordance with the NSW National Parks and Wildlife Service Managed Parks and Reserves 2016 report, there is a relationship with park visitations and temperature, being higher temperatures resulting in increased visitations. This is considered a general trend for parks, noting that the Georges River Council also recognised an increased demand for parking during warmer seasons, as contained within the Pre-DA Lodgement Letter (*Reference Pre2020/0106, dated 4 September 2020*), which stated:



'As we are heading into warmer climate the use of the park and its facilities will be at a premium...'

As such, the proposed construction period (during the colder seasons) are anticipated to generate a reduced parking demand within the area, noting that the estimated construction period (3-4 months) is considered short-term. Nevertheless, the colder seasons for construction is not relied upon and a temporary at-grade car park will be provided to accommodate demands, as discussed previously in Item B.

Item E

Reference should be made to the parking survey data provided in **Attachment 2**.

Item F

Carss Bush Park Hill Parking is an existing car park that is only open during weekends and special events with no additional traffic management. Accordingly, the utilisation of this car park area for the general public on weekdays (during the construction period) is considered acceptable, with no additional traffic management measures required.

Item G

NearMap imagery was provided given that there were no survey data for the colder seasons, noting that the aforementioned response to 'Item D' identified a correlation between higher temperatures resulting in increased visitations.

In reference to the Traffic and Parking Assessment report (*Reference 20.374r01v02, dated 25-September-2020*), it is acknowledged that Figure 5 to Figure 8 are referencing incorrect dates, with the correct dates as outlined below:

- Saturday 18 August 2018 (Figure 7 and Figure 8); and
- Sunday 12 April 2020 (Figure 5 and Figure 6).

In light of the above, an updated analysis of recent NearMap imagery is provided below (**Figure 2 to Figure 9**), with the following aspects noteworthy:

- The critical parking demand period is envisaged to be on weekends and as such, weekend NearMap imagery was analysed;
- Available NearMap imagery between July 2019 to present was analysed, i.e. during the closure period of Kogarah War Memorial Pool, with all NearMap imagery prior to the closure date not considered relevant; and
- The date and time of each image is captured within each figure during the envisaged weekend peak parking demand (between 10:00am-4:00pm).



Figure 2: NearMap Image on Sunday 01-09-2019 (3:09pm) for Public Car Parks



Figure 3: NearMap Image on Sunday 01-09-2019 (3:09pm) for On-Street Parking



Figure 4: NearMap Image on Sunday 12-04-2020 (2:45pm) for Public Car Parks



Figure 5: NearMap Image on Sunday 12-04-2020 (2:42pm) for On-Street Parking



Figure 6: NearMap Image on Sunday 02-08-2020 (11:49am) for Public Car Parks



Figure 7: NearMap Image on Sunday 02-08-2020 (11:49am) for On-Street Parking



Figure 8: NearMap Image on Saturday 26-09-2020 (2:29pm) for Public Car Parks



Figure 9: NearMap Image on Saturday 26-09-2020 (2:29pm) for On-Street Parking

It can be seen from **Figure 4** and **Figure 5** (April-2020) that there are noticeably reduced parking demands during the colder seasons at Carss Park Flats, with increased parking demands identified in the other figures that were taken during the warmer seasons (August and September).

It is emphasised that NearMap imagery is not being utilised to determine the car parking capacity or demand in the area, rather it provides a snapshot of parking conditions during the seasons. As such, the NearMap imagery provides a general insight towards the parking provision during the colder season and is consistent with the NSW National Parks and Wildlife Service Managed Parks and Reserves 2016 report, which identified higher temperatures resulting in increased park visitations.



Nevertheless, it is proposed that during the construction period (3-4 months) a temporary car park area be provided during the weekends, situated in the area north of Carlton Crescent and adjacent the Kogarah Bay Creek. This temporary at-grade car park is proposed to accommodate approximately 60 off-street parking spaces and will therefore assist with the weekend parking demands of the existing Carss Park during the short construction period.

Item H

The operating hours of the Men's Shed are 8:00am-12:00pm during weekdays. As such, the parking demands of the Men's Shed were recorded within the Wednesday (02/09/2020) and Friday (04/09/2020) parking surveys, noting that it is not operational on weekends.

) **Conclusion**

On the basis of the above, the proposed demolition, remediation and landscaping works for Kogarah War Memorial Pool at 78 Carwar Avenue, Carss Park, in our view has addressed the traffic impacts raised by the Georges River Council. Continued support is therefore given on traffic planning grounds.

We trust the above is of assistance and request that you contact the undersigned should you have any queries or require any further information.

Yours faithfully,

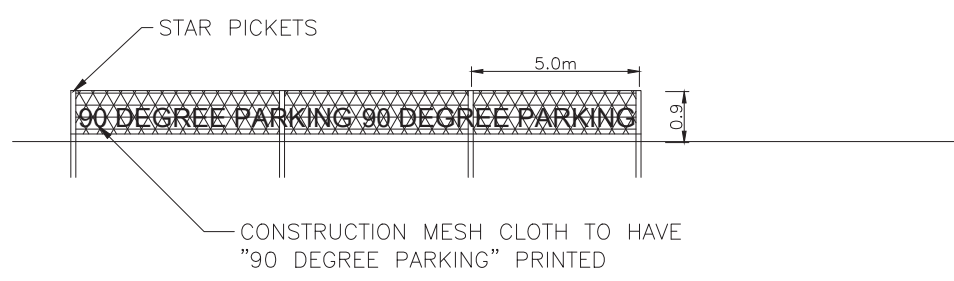
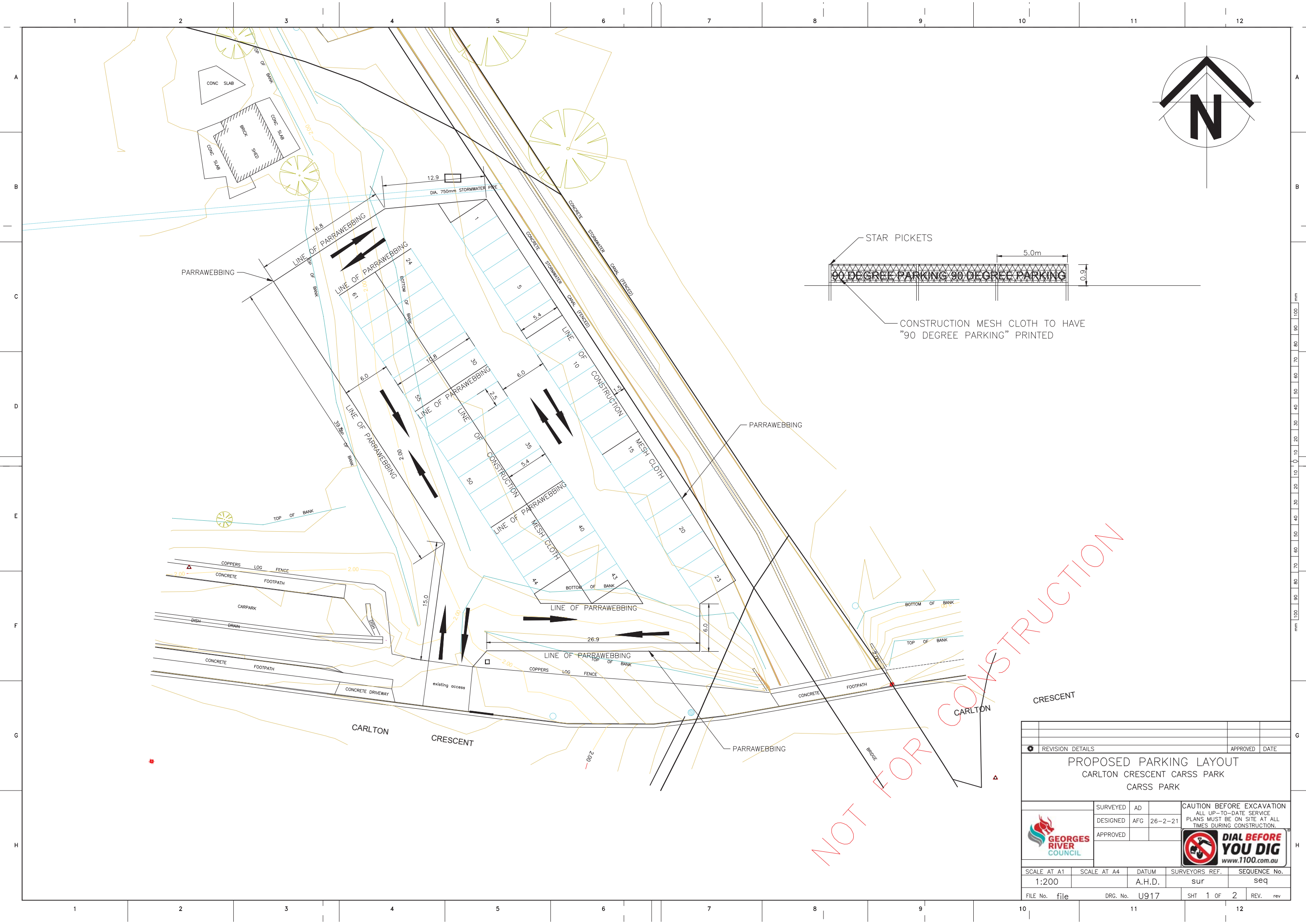
Traffix

Vince Doan
Executive Engineer


Encl: Attachment 1 – Temporary Car Park Reduced Plans
Attachment 2 – Parking Survey Data

ATTACHMENT 1

Temporary Car Park Reduced Plans



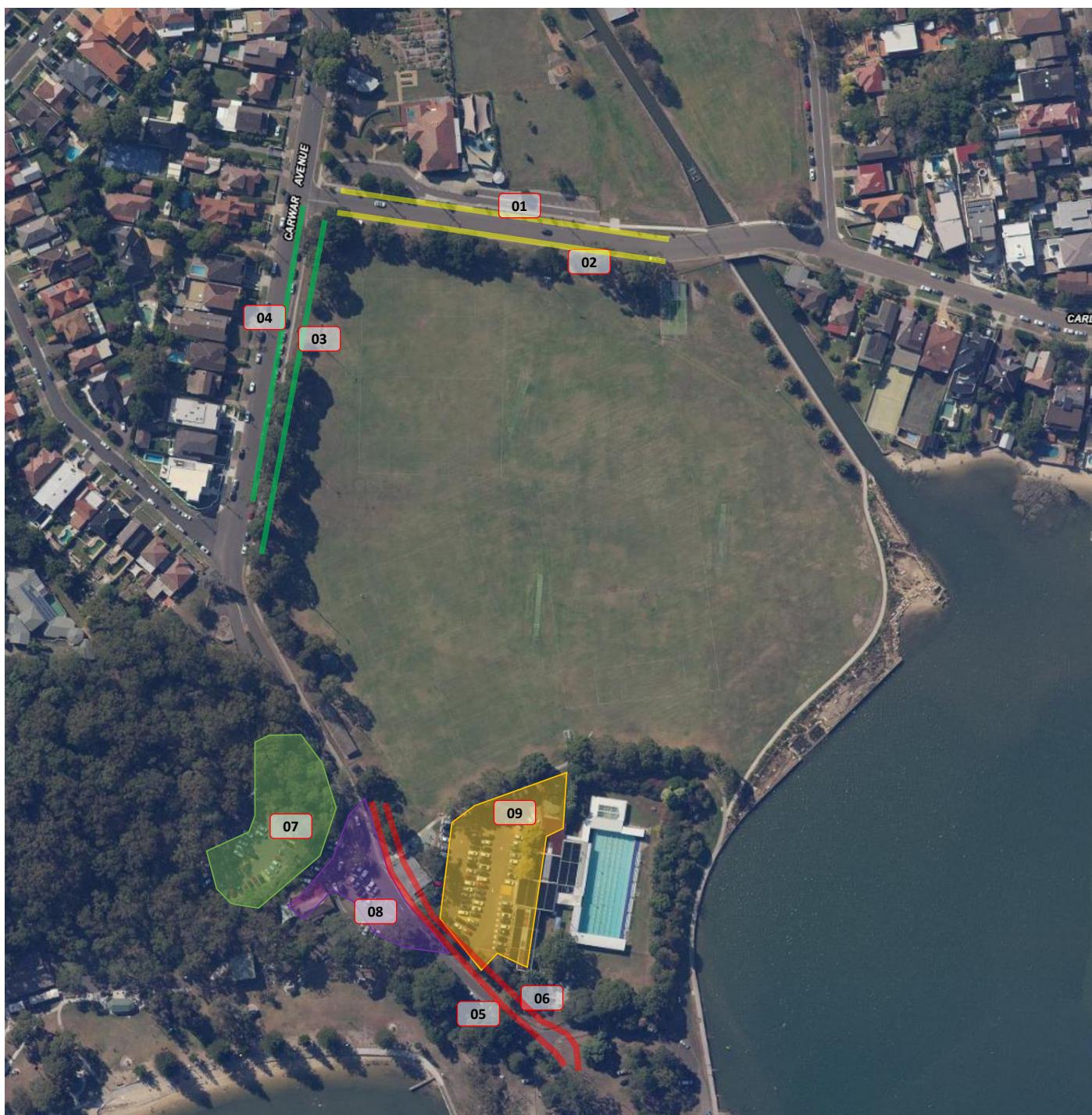
NOT FOR CONSTRUCTION

REVISION DETAILS		APPROVED	DATE
PROPOSED PARKING LAYOUT CARLTON CRESCENT CARSS PARK CARSS PARK			
	SURVEYED	AD	CAUTION BEFORE EXCAVATION ALL UP-TO-DATE SERVICE PLANS MUST BE ON SITE AT ALL TIMES DURING CONSTRUCTION.
	DESIGNED	AFG 26-2-21	
	APPROVED		
SCALE AT A1 1:200		DATUM A.H.D.	SURVEYORS REF. sur
FILE No. file		DRG. No. U917	SEQUENCE No. seq
		SHT 1 OF 2	REV. rev



ATTACHMENT 2

Parking Survey Data



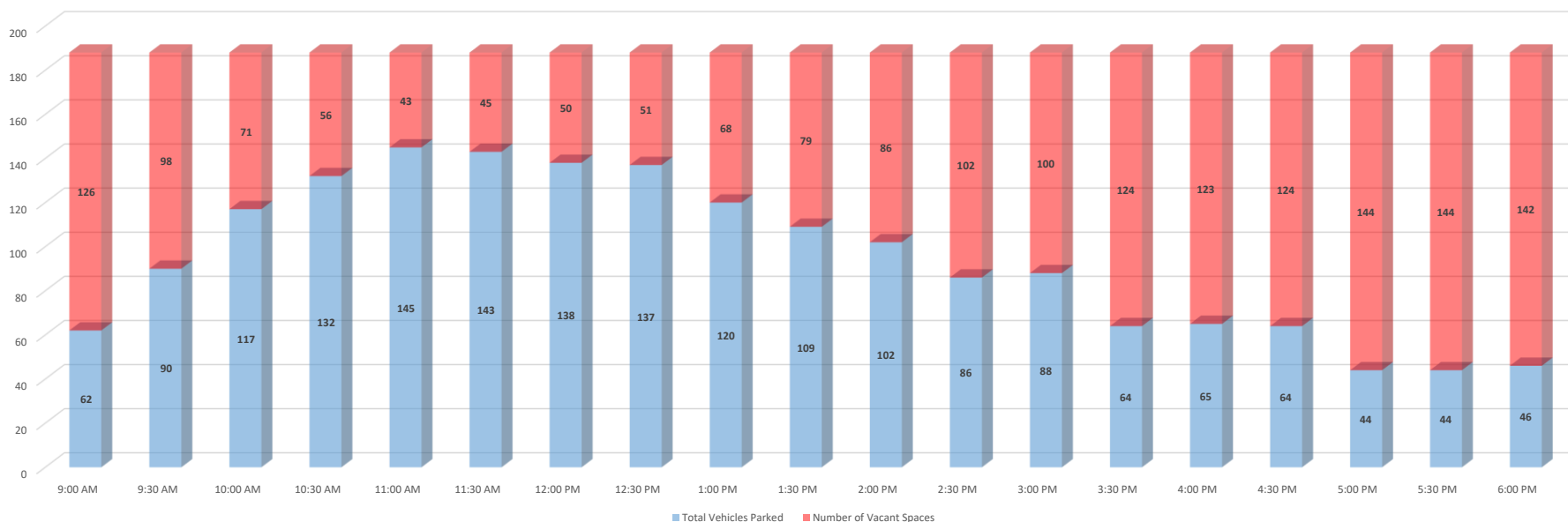
Kogarah War Memorial Pool

	Street Names	Zone	Parking Restrictions	No. of Spaces	
1	Carlton Crescent - North	Yellow	No Restriction	18	Bays
2	Carlton Crescent - South	Yellow	No Restriction	19	Bays
3	Carwar Avenue - East	Green	No Restriction	26	Bays
4	Carwar Avenue - West	Green	No Restriction	13	Bays
5	Carwar Avenue - East	Red	No Restriction	10	Bays
6	Carwar Avenue - West	Red	No Parking	0	Bays
7	Carss Bush Park Hill Parking	Light Green	Open weekend/special event only	0	Bays
8	Carss Park Life Saving Hall	Purple	No Restriction	22	Bays
9	Carss Park Flats Parking	Orange	No Restriction	80	Bays
Total Capacity				188	Bays

Location	Kogarah War Memorial Pool
Suburb	KOGARAH
Client	TRAFFIX
Job No/Name	20074
Survey Duration	9 Hours
Day/Date	Wednesday, 2 September 2020

Location	Capacity	Parking Restriction	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM
1 Carlton Crescent - North	18	No Restriction	8	10	10	9	10	10	11	12	10	10	10	10	20	10	9	9	6	4	1
2 Carlton Crescent - South	19	No Restriction	3	12	12	12	2	3	2	2	3	2	2	2	3	3	8	6	2	2	5
3 Carwar Avenue - East	26	No Restriction	10	7	12	13	16	15	15	18	16	13	12	9	9	7	6	9	4	7	12
4 Carwar Avenue - West	13	No Restriction	5	4	4	4	9	7	6	7	6	7	5	5	6	6	7	7	5	5	5
5 Carwar Avenue - East	10	No Restriction	5	9	10	10	9	10	10	9	10	9	10	9	9	4	7	6	3	1	1
6 Carwar Avenue - West	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Carss Bush Park Hill Parking	0	Open weekend/special event only	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Carss Park Life Saving Hall	22	No Restriction	20	21	22	22	21	22	22	22	22	20	20	19	14	14	11	13	13	13	12
9 Carss Park Flats Parking	80	No Restriction	11	27	47	62	78	76	72	67	53	48	43	32	27	20	17	14	11	12	10
Total Vehicles Parked	188		62	90	117	132	145	143	138	137	120	109	102	86	88	64	65	64	44	44	46
Number of Vacant Spaces			126	98	71	56	43	45	50	51	68	79	86	102	100	124	123	124	144	144	142
% of Capacity Used			33.0%	47.9%	62.2%	70.2%	77.1%	76.1%	73.4%	72.9%	63.8%	58.0%	54.3%	45.7%	46.8%	34.0%	34.6%	34.0%	23.4%	23.4%	24.5%

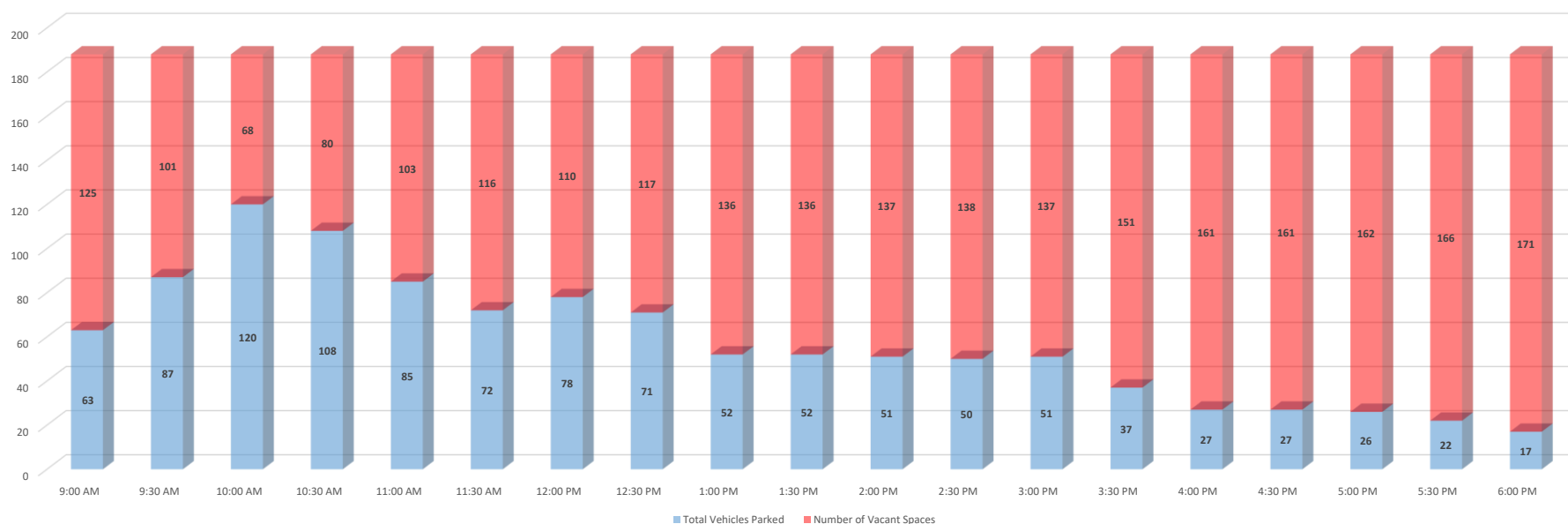
Parking Occupancy - KOGARAH WAR MEMORIAL POOL



Location	Kogarah War Memorial Pool
Suburb	KOGARAH
Client	TRAFFIX
Job No/Name	20074
Survey Duration	9 Hours
Day/Date	Friday, 4 September 2020

Location	Capacity	Parking Restriction	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM	4:30 PM	5:00 PM	5:30 PM	6:00 PM
1 Carlton Crescent - North	18	No Restriction	11	10	10	11	10	11	11	11	11	9	9	9	8	7	6	5	5	1	0
2 Carlton Crescent - South	19	No Restriction	6	9	10	7	7	7	7	7	6	7	7	6	8	7	6	5	3	3	1
3 Carwar Avenue - East	26	No Restriction	7	7	13	14	11	9	7	8	6	6	4	4	6	4	5	5	4	3	3
4 Carwar Avenue - West	13	No Restriction	3	3	3	5	3	3	3	2	2	2	2	2	3	4	3	3	3	3	5
5 Carwar Avenue - East	10	No Restriction	5	8	10	7	6	3	5	5	5	5	6	6	4	1	1	1	0	0	0
6 Carwar Avenue - West	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Carss Bush Park Hill Parking	0	Open weekend/special event only	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 Carss Park Life Saving Hall	22	No Restriction	14	19	20	20	15	18	21	20	16	18	18	16	16	10	4	6	9	8	5
9 Carss Park Flats Parking	80	No Restriction	17	31	54	44	33	21	24	18	6	5	5	7	6	4	2	2	2	4	3
Total Vehicles Parked	188		63	87	120	108	85	72	78	71	52	52	51	50	51	37	27	27	26	22	17
Number of Vacant Spaces			125	101	68	80	103	116	110	117	136	136	137	138	137	151	161	161	162	166	171
% of Capacity Used			33.5%	46.3%	63.8%	57.4%	45.2%	38.3%	41.5%	37.8%	27.7%	27.7%	27.1%	26.6%	27.1%	19.7%	14.4%	14.4%	13.8%	11.7%	9.0%

Parking Occupancy - KOGARAH WAR MEMORIAL POOL



Location	Kogarah War Memorial Pool
Suburb	KOGARAH
Client	TRAFFIX
Job No/Name	20074
Survey Duration	7 Hours
Day/Date	Saturday, 5 September 2020

Location	Capacity	Parking Restriction	9:00 AM	9:30 AM	10:00 AM	10:30 AM	11:00 AM	11:30 AM	12:00 PM	12:30 PM	1:00 PM	1:30 PM	2:00 PM	2:30 PM	3:00 PM	3:30 PM	4:00 PM
1 Carlton Cresnet - North	18	No Restriction	10	16	17	15	15	13	17	18	15	14	16	15	15	16	14
2 Carlton Cresnet - South	19	No Restriction	12	17	17	19	19	16	15	19	13	17	18	19	17	20	17
3 Carwar Avenue - East	26	No Restriction	20	20	21	21	22	23	23	23	21	23	23	23	22	21	17
4 Carwar Avenue - West	13	No Restriction	8	9	12	12	21	11	11	15	12	12	13	14	10	13	11
5 Carwar Avenue - East	10	No Restriction	8	8	10	10	10	10	10	10	10	11	10	10	10	10	10
6 Carwar Avenue - West	0	No Parking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Carss Bush Park Hill Parking	55	Open weekend/special event only	4	9	13	21	30	29	29	26	24	28	39	41	39	31	26
8 Carss Park Life Saving Hall	22	No Restriction	21	21	20	22	22	20	22	22	24	23	22	23	23	23	23
9 Carss Park Flats Parking	80	No Restriction	27	45	64	79	80	79	80	80	74	79	78	80	80	68	63
Total Vehicles Parked	243		110	145	174	199	219	201	207	213	193	207	219	225	216	202	181
Number of Vacant Spaces			133	98	69	44	24	42	36	30	50	36	24	18	27	41	62
% of Capacity Used			45.3%	59.7%	71.6%	81.9%	90.1%	82.7%	85.2%	87.7%	79.4%	85.2%	90.1%	92.6%	88.9%	83.1%	74.5%

