



TRAFFIC & PARKING IMPACT ASSESSMENT

**Kogarah War Memorial Swimming Pool
78 Carwar Avenue, Carss Park**

Reference: 20.374r01v02
Date: September 2020

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DOCUMENT VERIFICATION

Job Number	20.374			
Project	Kogarah War Memorial Swimming Pool			
Client	SJB Planning			
Revision	Date	Prepared By	Checked By	Signed
v02	25/09/2020	Neil Caga	Vince Doan	

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Reference: 20.374r01v02

25 September 2020

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

Attention: Mr Michael Baker, Director

Re: Kogarah War Memorial Swimming Pool (DA16/1029)
78 Carwar Avenue, Carss Park
Traffic and Parking Impact Assessment

Dear Michael,

TRAFFIX has been commissioned by SJB Planning to undertake a traffic and parking analysis in relation to construction works for the demolition of the existing pool complex and associated structures Kogarah of War Memorial Swimming Pool at 78 Carwar Avenue, Carss Park.

This statement documents the parking analysis during the proposed construction activities and should be read in conjunction with any other construction documentation prepared by the applicant.

Reference should be made to the pre-lodgement phone conference held on 17 August 2020 with the pre-lodgement letter provided on 4 September 2020 (PRE2020/0106).

➤ Location and Site

The subject site known as the Kogarah War Memorial Swimming Pool at 78 Carwar Avenue, Carss Park is located approximately 7.4 kilometres southwest of the Sydney Airport. More specifically, it is situated adjacent the Carss Park Flats carpark and approximately 70 metres north of the Carss Cottage Museum at Carss Point. The site legally forms part or all of the following:

- Lot 1 in DP125981;
- Lot 376 in DP1118749;
- Lot 511 in DP752056; and
- Unreserved Crown Land.

Vehicular access to the site is currently provided to the Carss Park Flats public carpark situated to the immediate west of the site and is accessible via Carwar Avenue through separated entry and egress vehicular accesses. A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**.

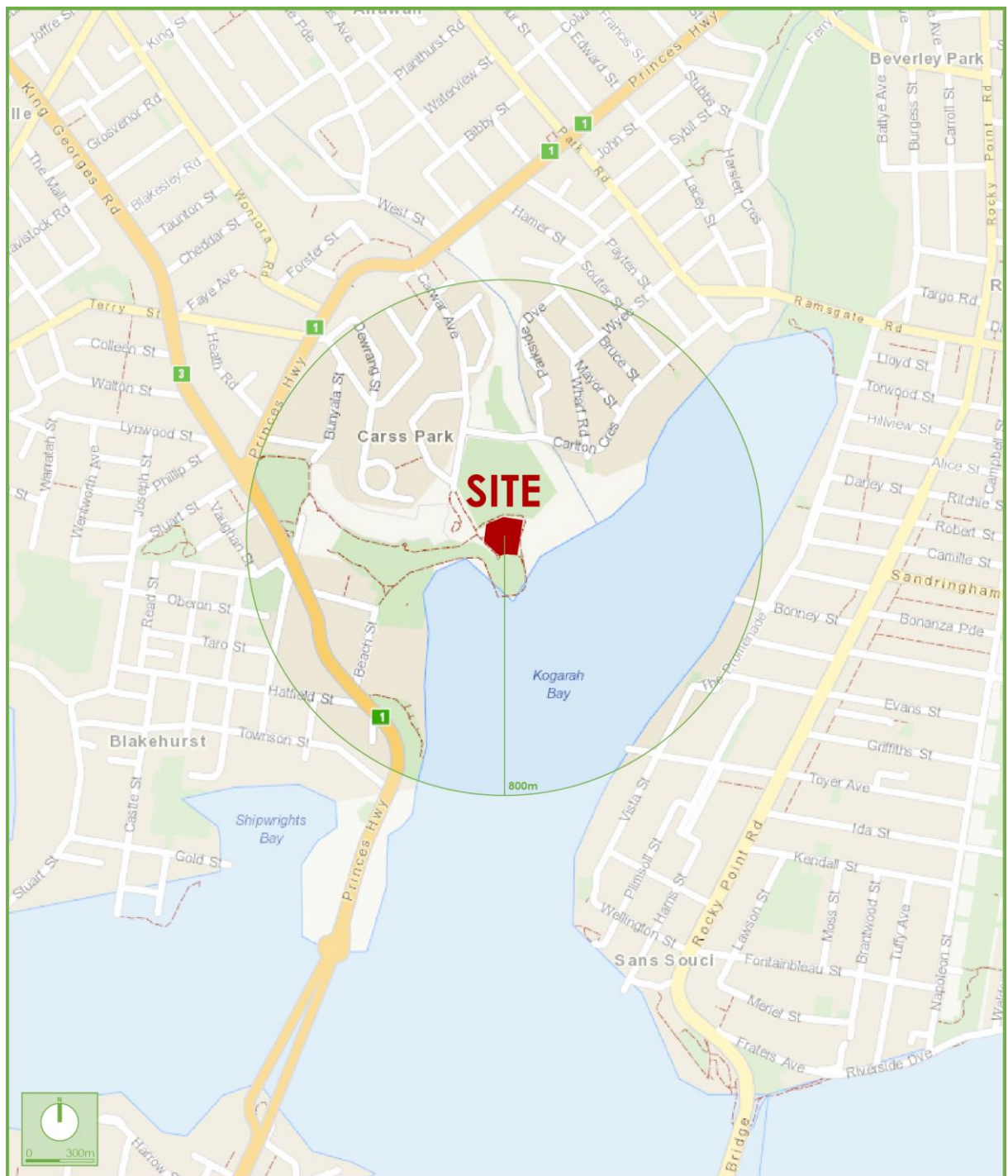


Figure 1: Location Plan



Figure 2: Site Plan



➤ Existing Parking Capacity

The available parking areas in the vicinity of Carss Park Flats are shown in **Figure 3** with the following carpark areas of particular interest:

Public Carpark Areas

- Carss Park Flat: a public carpark situated to the immediate west of the site that is able to accommodate a total of 80 unrestricted parking spaces during all days of the week. This carpark provides line-marked spaces in the form of 90° angled spaces and is accessible from Carwar Avenue via separate entry-only and egress-only in the south.
- Carwar Avenue (west): a public carpark situated adjacent the vehicular accesses of the Carss Park Flat carpark that is able to accommodate a total of 10 unrestricted parking spaces during all days of the week. This carpark provides line-marked spaces in the form of parallel spaces, with spaces accessible via a turning area at the end of Carwar Avenue
- Carss Life Saving Hall: a public carpark situated to the immediate east of the Carss Park Life Saving Hall that is able to accommodate a total of 22 unrestricted parking spaces during all days of the week. This carpark provides line-marked spaces in the form of 45° and 90° angled spaces and is accessible from Carwar Avenue in the south, with egress in the north.
- Carss Bush Park Hill: a public carpark situated to the immediate north of the Carss Park Life Saving Hall that is able to accommodate a total of 55 unrestricted parking spaces during weekends and special events. This carpark provides line-marked spaces in the form of 90° angled spaces and is accessible from Carwar Avenue, south of the Allawah Avenue intersection.

On-Street Parking

- Carwar Avenue (east): on-street parking situated along the western frontage of the Carss Park Flats that is able to accommodate a total of 26 unrestricted parking spaces. This area provides on-street kerbside parking during all days of the week.
- Carwar Avenue (west): on-street parking across the road from Carss Park Flats that is able to accommodate a total of 13 unrestricted parking spaces. This area provides on-street kerbside parking during all days of the week.
- Carlton Crescent (south): on-street parking situated along the northern frontage of the Carss Park Flats that is able to accommodate a total of 19 unrestricted parking spaces. This area provides on-street kerbside parking during all days of the week.
- Carlton Crescent (north): on-street parking across the road from Carss Park Flats that is able to accommodate a total of 18 unrestricted parking spaces. This area provides on-street kerbside parking during all days of the week.

It can be seen from the above that there is a total capacity for 188 spaces during all days of the week, with an additional 55 spaces available during weekends and special events.



Figure 3: Parking Areas



➤ Parking Surveys

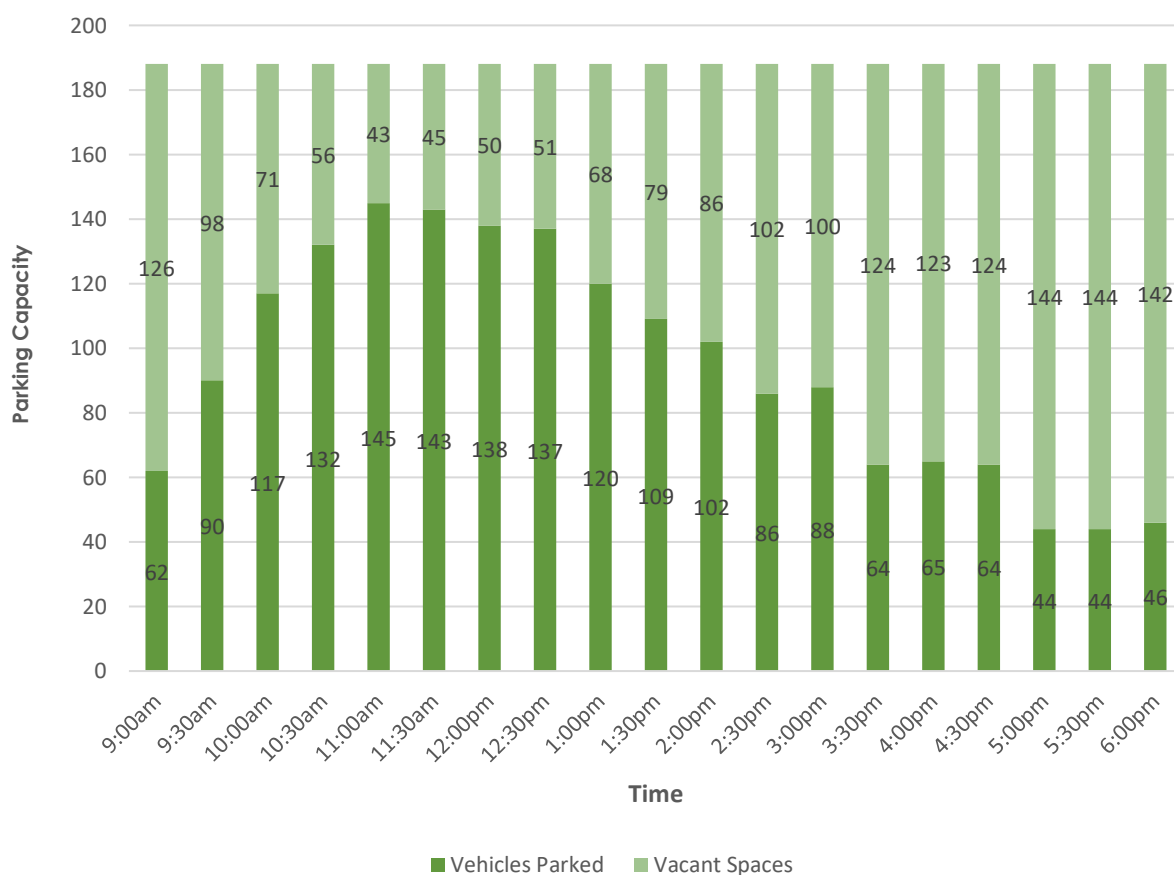
In order to determine the parking demand in the locality, parking surveys were conducted at the abovementioned parking areas. It should be noted that the Carrs Park Flats parking demands are envisaged to occur seasonally, that is increased demand during the warmer seasons (September to February) and a reduced parking demand during the colder seasons (March to August).

These surveys were conducted at the start of September, with the Saturday survey undertaken during 'Father's Day' weekend. Accordingly, it is emphasised that these surveys have identified an increased demand for parking for the Carrs Park Flats. These parking surveys were conducted at 30-minute intervals and summarised as follows:

Wednesday Parking Survey

This survey was conducted on 2 September 2020 between 9:00am and 6:00pm, noting a total capacity for 188 spaces, given the Carss Bush Park Hill carpark is only open on weekends and for special events. The results of this survey are outlined in **Chart 1** below.

Chart 1: Parking Capacity on Wednesday, 2 September 2020



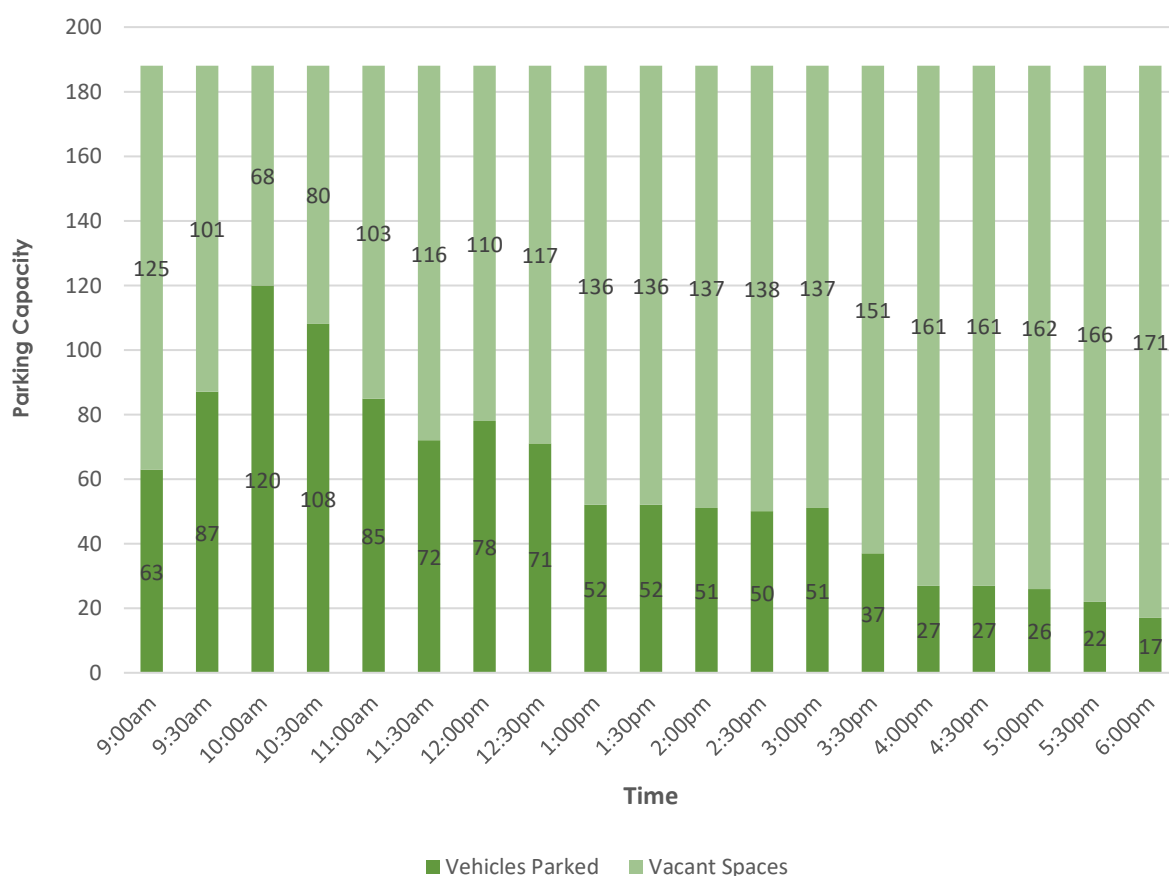


It can be seen from Chart 1 that the peak parking demand was for 145 parked vehicles (77.1%) which occurred at 11:00am, with 43 vacant spaces (22.9%). On average, there were 95 parked vehicles (50.3%), with 93 vacant spaces (49.7%) between 9:00am and 6:00pm.

Friday Parking Survey

This survey was conducted on 4 September 2020 between 9:00am and 6:00pm, noting a total capacity for 188 spaces, given the Carss Bush Park Hill carpark is only open on weekends and for special events. The results of this survey are outlined in **Chart 2** below.

Chart 2: Parking Capacity on Friday, 4 September 2020

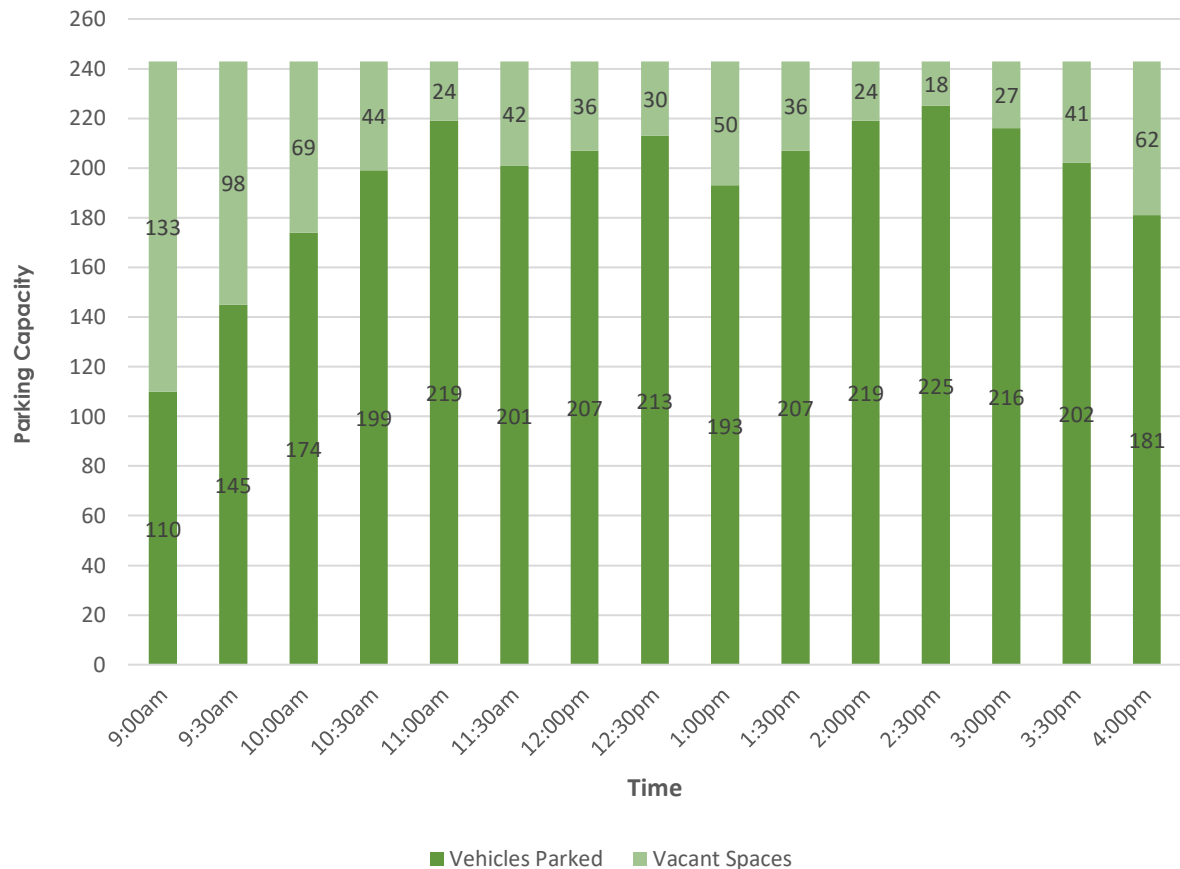


It can be seen from Chart 2 that the peak parking demand was for 120 parked vehicles (63.8%) which occurred at 10:00am, with 68 vacant spaces (36.2%). On average, there were 58 parked vehicles (30.7%), with 130 vacant spaces (69.3%) between 9:00am and 6:00pm.

Saturday Parking Survey

This survey was conducted on 5 September 2020 between 9:00am and 4:00pm, noting a total capacity for 243 spaces, given the Carss Bush Park Hill carpark is open on weekends. The results of this survey are outlined in **Chart 3** below.

Chart 3: Parking Capacity on Saturday, 5 September 2020



It can be seen from Chart 3 that the peak parking demand was for 225 parked vehicles (92.6%) which occurred at 2:30pm, with 18 vacant spaces (7.4%). On average, there were 194 parked vehicles (79.9%), with 49 vacant spaces (20.1%) throughout the day.

➤ Proposed Activities

In summary, the demolition of existing pool and ancillary structures, tree removal, remediation of contaminated land, earthworks and associated landscaping is proposed to involve the utilisation of the Carss Park Flats carpark as presented in **Figure 4**, noting the following key aspects:

- Construction is proposed to occur for an estimated 3-4-month period during the Autumn and Winter months;
- Utilisation of 83 total car parking spaces for construction activities, including:
 - 80 x spaces within the Carss Park Flat carpark; and
 - 3 x spaces Carwar Avenue (west) for construction vehicle egress manoeuvres.



Figure 4: Proposed Parking Spaces to be Utilised

➤ Parking Assessment

The proposed demolition and remediation works at the Kogarah War Memorial Pool site would therefore result in the utilisation of 83 car parking spaces for an estimated 3-4 month period. It should be emphasised that the proposed construction activities are proposed to occur during the colder seasons (March to August) when parking demand in the area is envisaged to be considerably reduced. The parking demand during the proposed construction period have been assessed as follows:

Weekday Parking Assessment

In reference to the weekday parking surveys, the results identified the following periods where the parking vacancy was recorded below 83 spaces:

- Wednesday survey indicates a four (4) hour period between 10:00am-2:00pm, with a minimum of 43 vacant spaces at 11:00am; and
- Friday survey indicated a one (1) hour period between 10:00am-11:00am, with a minimum of 68 vacant spaces at 10:30am.

Although, the construction period is proposed to occur during seasons with a reduced parking demand, the Carrs Bush Park Hill carpark is proposed to remain open for public use during the construction period. This carpark is currently only open on weekends and special events and will provide an additional 55 unrestricted parking spaces. Accordingly, these additional spaces would be readily be able to accommodate the parking demands during the construction period.

Weekend Parking Assessment

In reference to the Saturday parking survey, the parking vacancy was generally below 83 spaces (being loss of parking during construction) between 10:00am-4:00pm, with an average of 49 vacant spaces and a minimum of 18 vacant spaces. It should be noted that this survey was undertaken during the warmer season and in particular, during 'Father's Day' weekend, where the parking demand would be considerably higher than the proposed construction period. This is further emphasised with the NearMap imagery taken during weekends on the colder seasons between March and August on the following days:

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



Figure 5: NearMap Image on Saturday 18 August 2018 (On-Street Parking)



Figure 6: NearMap Image on Saturday 18 August 2018 (Public Carparks)



Figure 7: NearMap Image on Sunday 12 April 2020 (On-Street Parking)



Figure 8: NearMap Image on Sunday 12 April 2020 (Public Carparks)

It can be seen from the above figures that there are noticeably reduced parking demands during the weekend colder seasons at Carss Park Flats. Accordingly, the reduced parking capacity during the proposed construction period between March to June 2021 are envisaged to have a reduced overall parking demand in the area, hence considered appropriate.

➤ Traffic Generation

The Kogarah War Memorial Swimming Pool has a total site area of approximately 12,200m² including a hard surfaced car park with an area of approximately 2,460m². The subject site is currently vacant, however, has historically been utilised as an aquatic centre comprising a 50 metre Olympic swimming pool, toddlers pool, administration, change rooms and associated plant/equipment structures.

Existing Traffic Generation

The RMS Guide to Traffic Generating Developments 2002 (RMS Guide) and RMS Technical Direction 2013/04a (RMS TDT) do not provide traffic generation rates for aquatic centres. With this in mind, TRAFFIX has had experience with comparable developments, with interview surveys conducted at a comparable aquatic centre identifying a traffic generation rate of 0.4 vehicle trips per 100m² site area excluding car park. Application of this rate to the site area of 9,740m² (minus car park) results in the following existing traffic generation:

- 39 vehicle trips per hour during the morning peak period; and
- 39 vehicle trips per hour during the evening peak period.



Development Traffic Generation

The RMS Guide 2002 and RMS TDT 2013 do not specify traffic generation rates for a community open space development, although it is considered that the traffic generation of the proposal would have minimal impacts on the surrounding area, given the following:

- The site is located within the Carss Park Flats and is adjacent the Carss Bush Park, which both accommodate existing open space areas (BBQs, playgrounds, etc.). Accordingly, the peak traffic generation associated with open space areas would not coincide with the surrounding network peak periods, noting that this is also consistent with the parking surveys undertaken for the area, which revealed peak parking demands between 10:00am-11:00am on weekdays and 11:00am-3:00pm on Saturday; and
- The traffic generation of the proposed development is envisaged to be considerably less than that of the existing aquatic centre. As such, the development is anticipated to generate an overall net reduction in traffic generation when compared to the existing development, which is estimated to generate 39 vehicle trips per hour during the morning and evening peak periods.

In light of the above, the traffic generation associated with the proposed open space area is considered acceptable from a traffic planning perspective, with negligible impacts on the surrounding area.

➤ **Summary**

On the basis of the above, the proposed demolition of existing pool and ancillary structures, tree removal, remediation of contaminated land, earthworks and associated landscaping during the Autumn/Winter seasons is considered appropriate as it would coincide with the reduced seasonal demand for car parking in the area.

We trust the above is of assistance and please don't hesitate to contact the undersigned should you have any queries.

Yours faithfully,

Traffix

Vince Doan
Executive Engineer