

Proposed Self-Storage Warehouse

**4 Cross Street,
Brookvale**

TRAFFIC AND PARKING ASSESSMENT REPORT

24 March 2020

Ref 20090

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1. INTRODUCTION

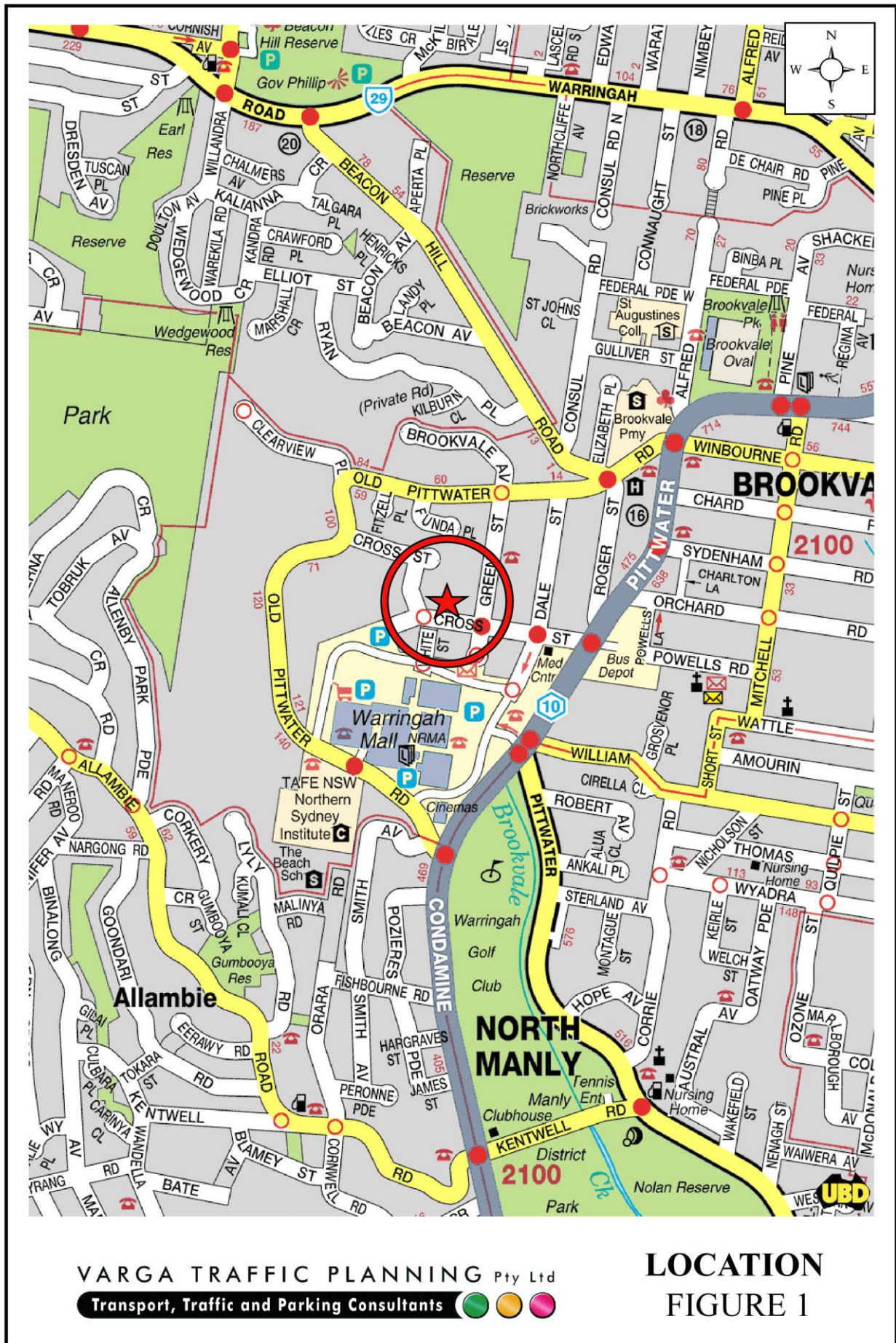
This report has been prepared to accompany a development application to Northern Beaches Council for a self-storage warehouse development proposal to be located at 4 Cross Street, Brookvale (Figures 1 and 2).

The proposed development involves construction of a new self-storage warehouse to replace the former self-storage warehouse on the site that was destroyed in a fire.

Off-street parking is proposed to be provided along the western boundary of the site, plus a small undercroft car parking area in front of the site office in accordance with industry-standard requirements.

The purpose of this report is to assess the traffic and parking implications of the development proposal and to that end this report:

- describes the site and provides details of the development proposal
- reviews the road network in the vicinity of the site
- estimates the traffic generation potential of the development proposal
- assesses the traffic implications of the development proposal in terms of road network capacity
- reviews the geometric design features of the proposed car parking and loading facilities for compliance with the relevant codes and standards
- assesses the adequacy and suitability of the quantum of off-street car parking and loading provided on the site.





2. PROPOSED DEVELOPMENT

Site

The subject site is located on the northern side of Cross Street, opposite Westfield Warringah Mall. The site has street frontages of approximately 30 metres and 4 metres to two ends of Cross Street, and occupies an area of approximately 2,450m².

The site was formerly occupied by a self-storage warehouse with a *Maximum Leasable Area* (MLA) of approximately 2,720m², and was destroyed in a fire.

Off-street parking was previously provided in two separate parking hardstand areas located in the front and rear of the building accessed via two ends of Cross Street.

A recent aerial image of the site and its surroundings is reproduced below.



Courtesy of Nearmap Imagery 2020

Self-Storage Facility Traffic and Parking Study – Aurecon Australia

In 2009, *Aurecon Australia* was commissioned by *Self Storage Association of Australia* to undertake a detailed traffic and parking study of self-storage warehouses around Australia.

The study involved 32 self-storage warehouses around Australia, including 4 in Sydney, and was aimed to address the lack of specific guidelines to assist business operators or local Council authorities to determine the number of vehicle parking spaces required to adequately service these types of developments, and assess the likely traffic implications of new self-storage facilities on the adjacent road network.

A subsequent update to the study was again undertaken by *Aurecon Australia* in 2016 that involved 10 of the 32 original sites plus an additional 5 self-storage warehouses that were not previously surveyed in 2009.

The traffic and parking recommendations will be reproduced in the relevant sections of this report, and it can be generally appreciated that self-storage warehouses represent a *very low* intensity land use, particularly in terms of car parking and traffic generation.

Proposed Development

The proposed development involves construction of a new self-storage warehouse to replace the former self-storage warehouse that was destroyed in a fire.

The proposed new self-storage warehouse will comprise a *Gross Floor Area* (GFA) of 7,510m² and a *Maximum Leasable Area* (MLA) of 5,630m².

Off-street parking is proposed for a total of 11 cars (including 1 extra-long space for trailer parking) along the western boundary of the site plus an undercroft car parking area in front of the site office (including 1 accessible parking) in accordance with industry-standard requirements.

Vehicular access to the site is to be provided via a new combined entry and exit driveway located at the western end of the southern Cross Street site frontage, and another egress-only driveway to the northern Cross Street site frontage enabling a drive-through arrangement.

Plans of the proposed development have been prepared by *Harding Architects Pty Ltd* and are reproduced in the following pages.



REV	AMENDMENT	DATE
HA HARDING ARCHITECTS PTY LTD 60 RIVER STREET, BROOKVALE, VIC 3100, AU 03 9378 0055 03 9378 0055 OFFICE@HARDINGARCHITECTS.COM.AU		
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PROJECT		
RENT A SPACE SELF STORAGE		
4 CROSS STREET		
BROOKVALE, NSW		
DRAWING TITLE		
PROPOSED		
GROUND FLOOR PLAN		
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RENT A SPACE		
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3. TRAFFIC ASSESSMENT

Road Hierarchy

The road hierarchy allocated to the road network in the vicinity of the site by the Roads and Maritime Services is illustrated on Figure 3.

Pittwater Road is classified by the RMS as a *State Road* and provides the key north-south road link in the area, linking Manly to Church Point. It typically carries three traffic lanes in each direction in the vicinity of the site, including dedicated Bus Lanes during peak commuter periods.

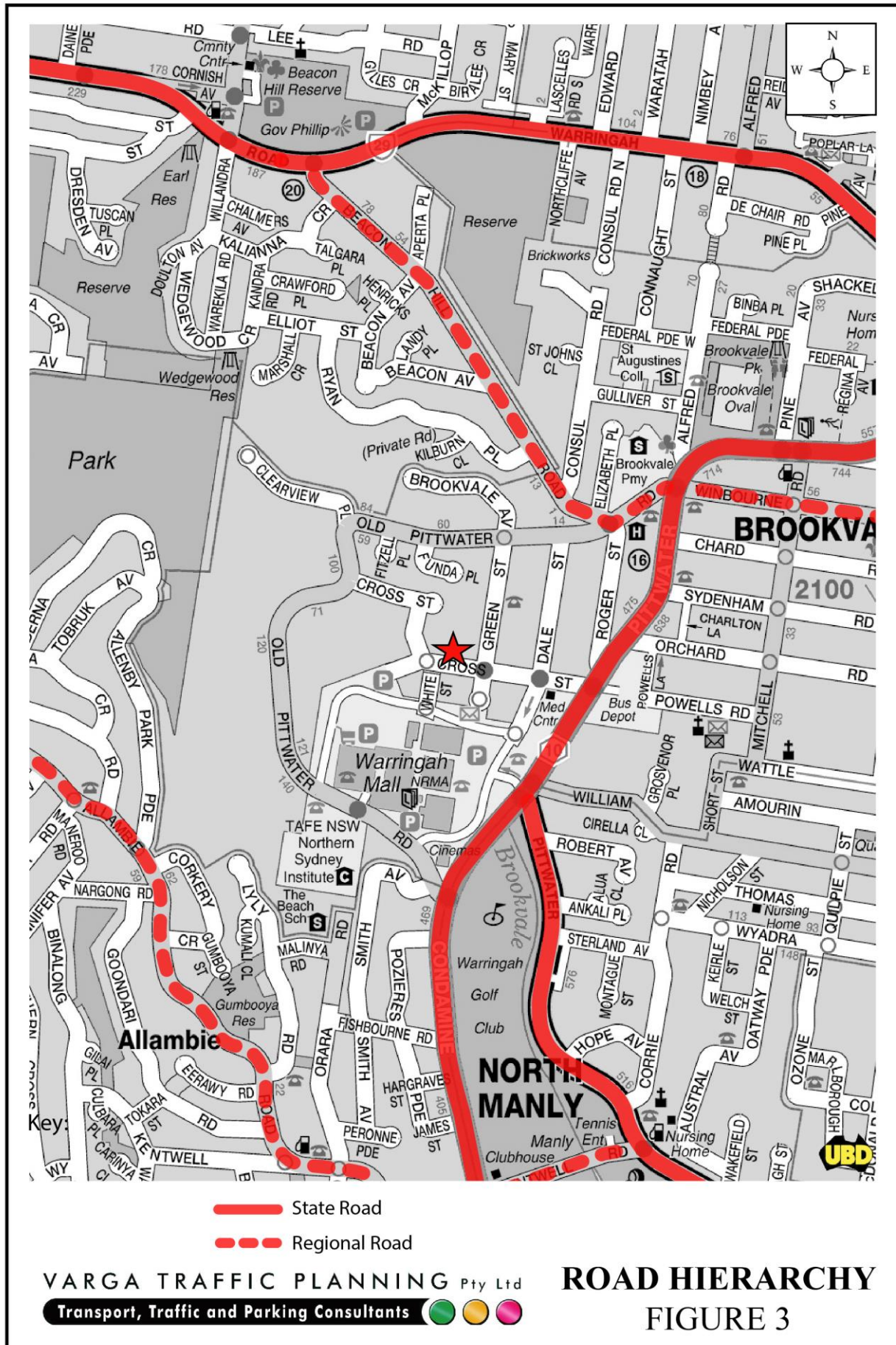
Warringah Road is also classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Brookvale to Roseville. It typically carries three traffic lanes in each direction in the vicinity of the site with turning bays provided at key locations.

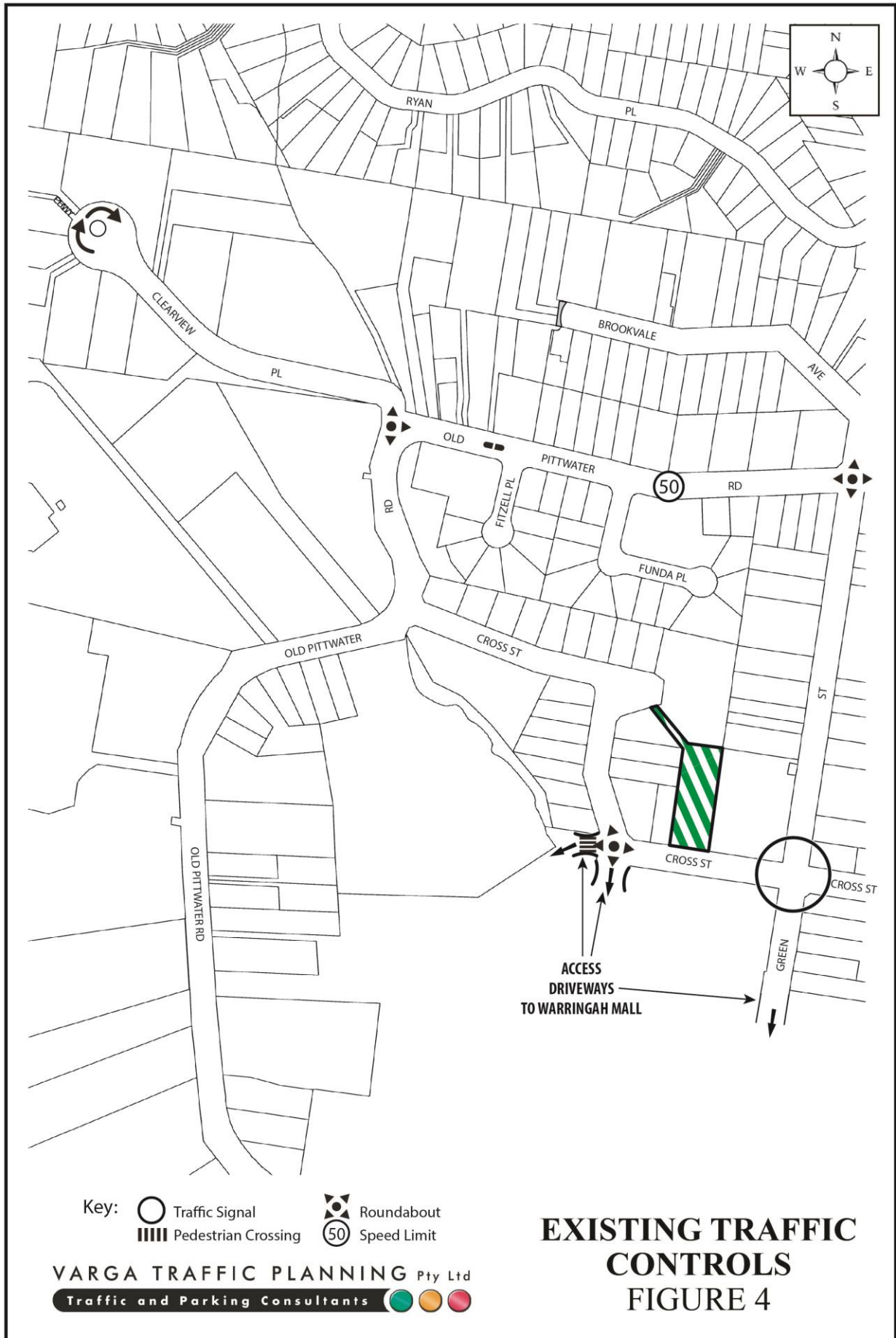
Cross Street is a local, unclassified road which is primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of the road.

Existing Traffic Controls

The existing traffic controls which apply to the road network in the vicinity of the site are illustrated on Figure 4. Key features of those traffic controls are:

- a 50 km/h SPEED LIMIT which applies to Cross Street and all other local roads in the surrounding area
- ROUNDABOUTS in Old Pittwater Road where it intersects with Clearview Place and Green Street
- TRAFFIC SIGNALS in Green Street where it intersects with Cross Street





- a ROUNDABOUT in Cross Street where it intersects with the access driveways to Westfield Warringah Mall.

Projected Traffic Generation

An indication of the traffic generation potential of the development proposal is provided by reference to the *Self-Storage Facility Traffic and Parking Study (2009)* undertaken by Aurecon Australia on behalf of the *Self-Storage Association of Australia*.

The 2009 study undertook traffic surveys at 32 individual self-storage warehouses around Australia and revealed the following:

Maximum Leasable Area (MLA) Category	AM Peak Hour	PM Peak Hour
0-3,000m ²	5 to 15 trips	5 to 20 trips
3,000-6,000m ²	10 to 20 trips	10 to 20 trips
6,000-9,500m ²	15 to 30 trips	20 to 30 trips

Source: Self Storage Facility Traffic and Parking Study 2009, Table 5-8

It is pertinent to note that the subsequent 2016 study has been omitted in this assessment due to the updated trip generation analysis only assessed the daily trip generation potential of those newly surveyed sites, and did not reassess their traffic generation potential during the AM and PM peak hour.

Accordingly, the traffic generation rate for self-storage warehouse in the 3,000-6,000m² MLA category can be expressed in the following terms:

Self-Storage Warehouse Peak Hour Trip Generation Rate

0.333 peak hour vehicle trips per 100m² MLA

Application of the above traffic generation rate to the proposed self-storage warehouse with an MLA of 5,630m² yields a traffic generation potential of approximately 19 peak hour vehicle trips during both the AM and PM peak hour.

That projected future level of traffic generation potential should however, be offset or *discounted* by the volume of traffic which could reasonably be expected to be generated by the existing uses of the site, in order to determine the *nett increase (or decrease)* in traffic generation potential of the site expected to occur as a consequence of the development proposal.

Application of the same traffic estimation method using the findings for those self-storage warehouse in the 0-3,000m² MLA category to the former self-storage warehouse on the site comprised of 2,720m² MLA yields a traffic generation potential of 14 vph in the AM peak hour, and 18 vph in the PM peak hour

As such, it is likely that the proposed development will result in a *nett increase* in the traffic generation potential of the site of approximately 1 to 5 vph during both the AM and PM peak hour, as set out below:

**Projected Nett Change in Peak Hour Traffic Generation Potential
of the Site as a consequence of the development proposal**

Projected Future Traffic Generation Potential:	19 vehicle trips
Less Existing Traffic Generation Potential:	-14 to -18 vehicle trips
NETT CHANGE IN TRAFFIC GENERATION POTENTIAL:	1 to 5 vehicle trips

That projected change in traffic activity as a consequence of the development proposal is *statistically insignificant*, and will clearly not have any unacceptable traffic implications in terms of road network capacity.

4. PARKING IMPLICATIONS

Existing Kerbside Parking Restrictions

The existing kerbside parking restrictions which apply to the road network in the vicinity of the site are illustrated on Figure 5 and comprise:

- 1 HOUR PARKING restrictions on both sides of Green Street
- 1 HOUR PARKING restrictions on the southern side of Cross Street opposite the site
- NO PARKING restrictions on the northern side of Cross Street including the site frontage
- generally UNRESTRICTED PARKING elsewhere in Cross Street past Warringah Mall.

Off-Street Parking Provisions

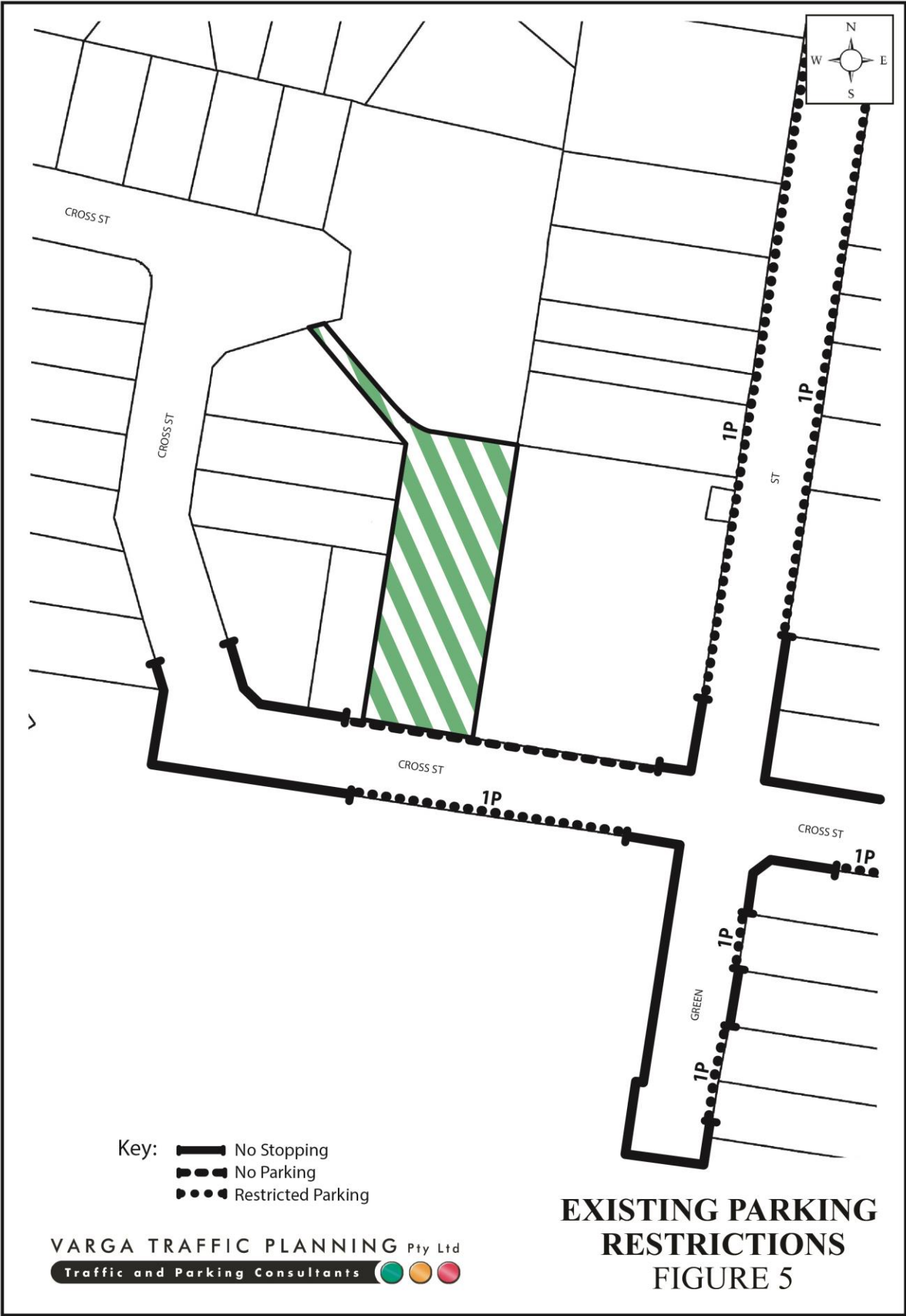
The off-street car parking requirements applicable to the development proposal are provided by reference to the updated *SSAA Supplementary Australian Traffic and parking Study (2016)* undertaken by *Aurecon Australia* in accordance with pre-DA discussions with Council.

The recommended minimum number of parking space for different MLA categories of self-storage are reproduced below:

MLA	Office Parking	Storage Area Parking*	Staff Parking	Trailer/Ute Parking	Total Parking Spaces
0 - 3,000m ²	1	2	2	1	6
3,000m ² - 6,000m ²	2	5	2	1	10
6,000m ² – 9,500m ²	2	8	2	1	13

Source: Self Storage Facility Traffic and Parking Study 2016, Table 3

Accordingly, the proposed self-storage comprising 5,630m² MLA generates a minimum car parking requirement of 10 spaces, comprising 2 office space, 5 storage area parking spaces, 2 staff parking spaces and 1 trailer/ute space.



The proposed development makes provision for a total of 11 car spaces including 1 trailer/ute parking space, thereby satisfying those minimum car parking recommendations set out by the updated *SSAA Supplementary Australian Traffic and parking Study (2016)* document.

The geometric design layout of the proposed parking facilities has been designed to generally comply with the relevant requirements specified in the Standards Australia publication *Parking Facilities Part 1 - Off-Street Car Parking AS2890.1 - 2004* and *Parking Facilities Part 6 - Off-Street Parking for People with Disabilities AS2890.6 – 2009* in respect of parking bay dimensions, aisle / driveway widths and overhead clearances.

Conclusion

In summary, the proposed provision of off-street car parking facilities is consistent with other self-storage warehouses throughout Australia as well as satisfies the relevant design requirements specified in the Australian Standards, and it is therefore concluded that the proposed development will not have any unacceptable parking or loading implications.