

Proposed Student Accommodation Development

**13B Church Avenue & 6-8 John Street,
Mascot**

TRAFFIC AND PARKING ASSESSMENT REPORT

1 October 2019

Ref 19401

VARGA TRAFFIC PLANNING Pty Ltd
Transport, Traffic and Parking Consultants 

Suite 6, 20 Young Street, Neutral Bay NSW 2089 - PO Box 1868, Neutral Bay NSW 2089

Ph: 9904 3224, Email: varga@vtp.net.au

TABLE OF CONTENTS

1. INTRODUCTION	1
2. PROPOSED DEVELOPMENT	5
3. TRAFFIC ASSESSMENT	13
4. PARKING ASSESSMENT	23

LIST OF ILLUSTRATIONS

Figure 1	Location
Figure 2	Site
Figure 3	Road Hierarchy
Figure 4	Existing Traffic Controls
Figures 5A & 5B	Existing Public Transport
Figure 6	Existing Parking Restrictions
Figure 7	Existing Car Share
Figure 8	Loading Dock Turning Paths

1. INTRODUCTION

This report has been prepared to accompany a development application to Bayside Council for a student accommodation development proposal to be located at 13B Church Avenue & 6-8 John Street, Mascot (Figures 1 and 2).

The proposed development will involve demolition of the existing structures to facilitate the construction of a purpose-built student accommodation building to be operated by *Iglu* – one of the largest student accommodation providers in Australia.

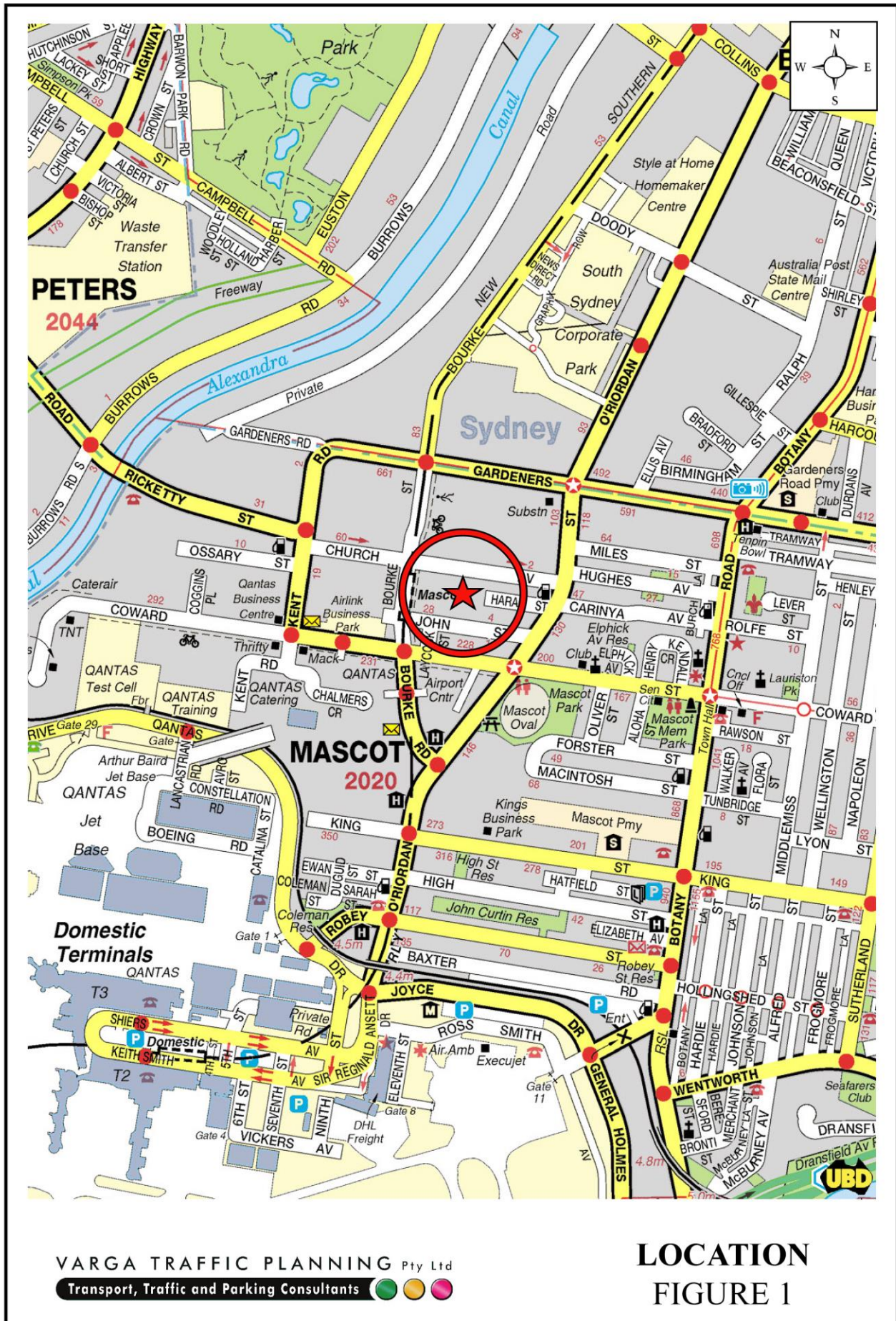
Iglu provides fully furnished modern student accommodation suites on major transport nodes where public transport accessibility, daily shopping/grocery needs, entertainment as well as lifestyle opportunities are available right on students' doorstep.

Accordingly, the subject site has been carefully selected by *Iglu* being situated in the heart of Mascot, with convenient access to a wide range of shops, restaurants, supermarkets and services, as well as easy on commute to multiple tertiary education establishments around Sydney via public transport services, noting that the Mascot Railway Station is less than 150 metres walking distance from the site.

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, and the traffic conditions on that road network
- reviews the sustainable transport options available 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

- assesses the parking implications of the development proposal.





2. PROPOSED DEVELOPMENT

Site

The subject site is an amalgamation of three separate lots located between Church Avenue and John Street, some 150 metres east of the Mascot Railway Station. The site has street frontages approximately 34 metres in length to John Street, approximately 5.5 metres in length to Church Avenue and occupies an area of approximately 3,161m².

A recent aerial photograph of the site and its surroundings is provided below:



Courtesy of Nearmap Imagery 2019

The site is located in the heart of Mascot and has convenient access to a wide range of essential shops and services, including a supermarket, medical centres, dentistry, pharmacies, banks, post office, restaurants, delis and cafés.

The site is currently occupied by three brick factory buildings with a cumulative floor area of approximately 3,400m².

Vehicular access to property no 13B Church Avenue is provided via an easement off Church Avenue, and vehicular access to 6-8 John Street is provided via separate vehicular access driveways off John Street.

Proposed Development

The proposed development will involve demolition of the existing structures to facilitate the construction of a purpose-built student accommodation building comprising a total of 435 beds with ancillary on-site community, entertainment, lifestyle and education facilities for the use of its student residents.

The student accommodation is to be developed, managed and operated by *Iglu* – one of the largest student accommodation providers in Australia with several accommodation sites across Sydney, Melbourne and Brisbane as detailed in the table below.

Iglu provides fully furnished modern student accommodation suites on major transport nodes where public transport accessibility, daily shopping/grocery needs, entertainment as well as lifestyle opportunities are available right on students' doorstep.

Property Name	Bed No	Completion Date	Address
<i>Iglu</i> Centre	98	Dec-12	1 Regent Street, Chippendale NSW 2008
<i>Iglu</i> Chatswood	395	Dec-13	73 Albert Avenue, Chatswood NSW 2067
<i>Iglu</i> Redfern	370	Dec-17	66 Regent Street, Redfern NSW 2016
<i>Iglu</i> Broadway	271	Jan-15	9 Kensington Street, Chippendale NSW 2008
<i>Iglu</i> Central Park	770	Jan-15	6 Central Park Avenue, Chippendale NSW 2008
<i>Iglu</i> Redfern II	265	DA Approved	80-88 Regent Street, Redfern NSW 2016
<i>Iglu</i> Melbourne City	594	May-18	229 Franklin Street, Melbourne VIC 3004
<i>Iglu</i> South Yarra	448	DA Approved	8 Claremont Street, South Yarra VIC 3141
<i>Iglu</i> Brisbane City	414	Dec-15	65 Mary Street, Brisbane QLD 4000
<i>Iglu</i> Kelvin Grove	454	Jan-08	62 Blamey Street, Levin Grove QLD 4059

None of *Iglu*'s student accommodation facilities provide any car parking for staff or student residents.

Accordingly, the subject site has been carefully selected by *Iglu* being situated in the heart of Mascot, with convenient access to a wide range of shops, restaurants, supermarkets and services, as well as easy on commute to education establishments around Sydney via public

transport services, noting that the *Mascot Railway Station is less than 150 metres walking distance* from the site.

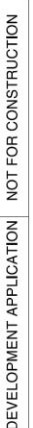
The nature of the proposed development and its location are ideally suited to discourage private car usage, and to promote the greater use of public transport, sustainable and active modes of transport such as walking and cycling.

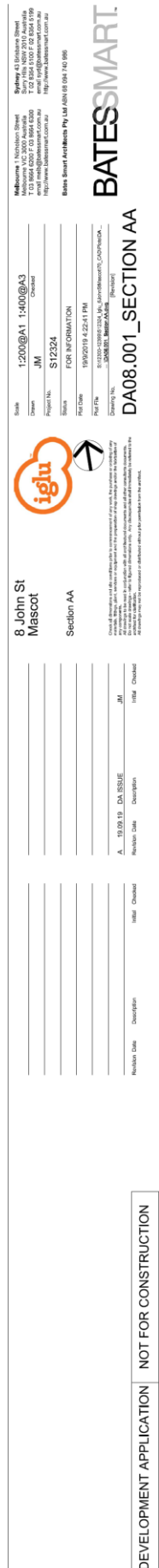
Off-street car parking is therefore not proposed on the site, consistent with the targeted demographic of the student accommodation facility, to help ease traffic and parking congestion in the Mascot Town Centre as well as help achieve state wide sustainable transport targets.

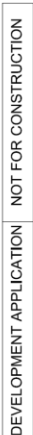
Loading and servicing will be undertaken by a variety of commercial vehicles up to and including 8.8 metres long Medium Rigid Vehicles (MRV trucks). A dedicated loading bay is proposed at the north-western corner of the building on the lower ground floor level, and will be accessed via the existing easement off Church Avenue.

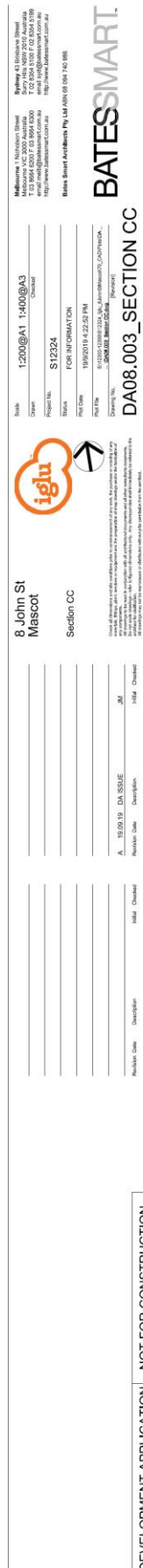
The proposed development makes provision for realignment of the kerb in John Street by removing the existing kerb blister, thereby creating the potential to provide additional on-street kerbside parking in lieu of the existing blister.

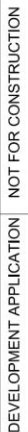
Plans of the proposed development have been prepared by *Bates Smart Pty Ltd* and are reproduced in the following pages.





[illegible]





BATESSMART.

DA08.004_SECTION DD

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.

Gardeners Road is classified by the RMS as a *State Road* and provides the key east-west road link in the area, linking Mascot and Kingsford. It typically carries two traffic lanes in each direction in the site's vicinity, with additional lanes provided at key intersections.

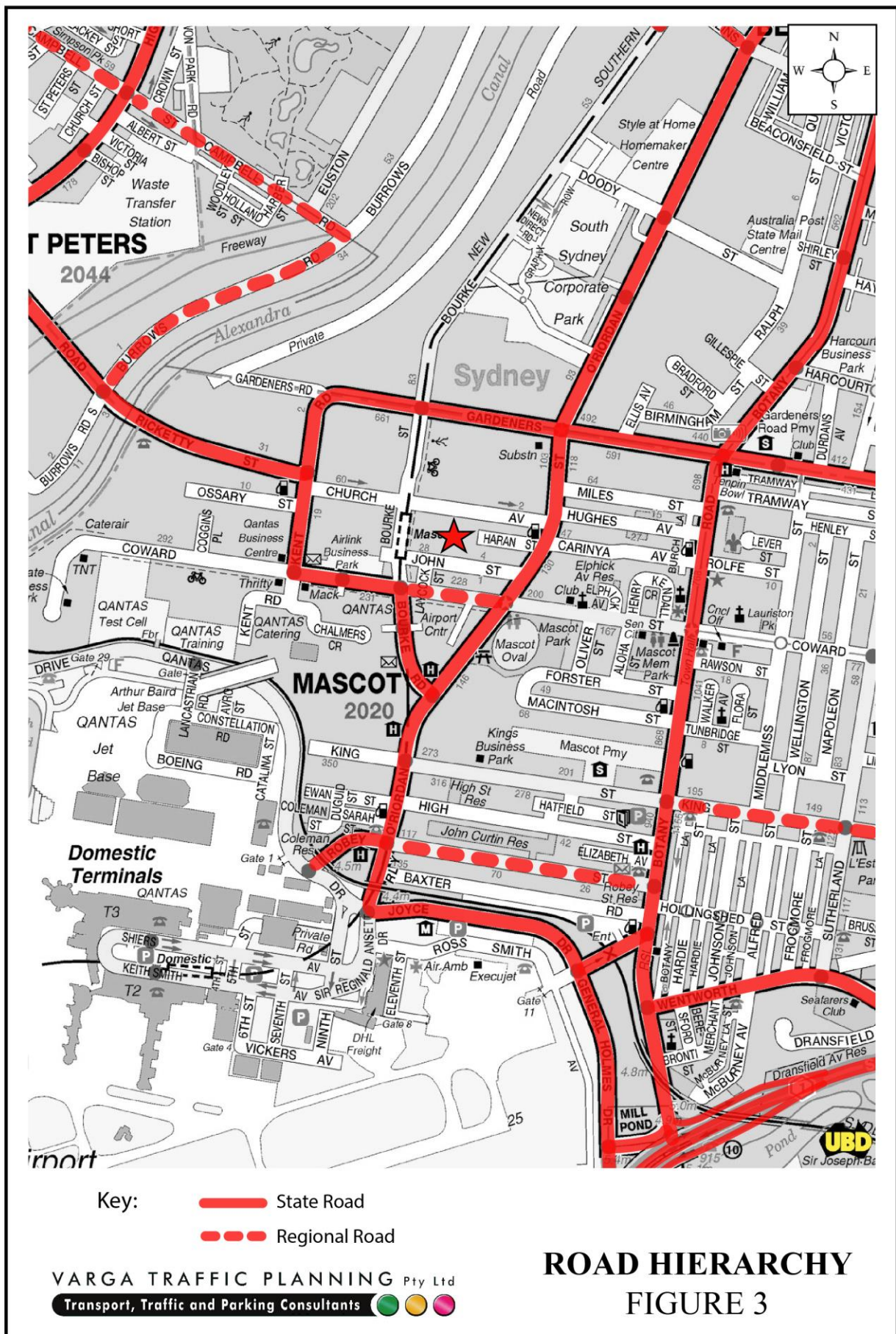
O'Riordan Street is classified by the RMS as a *State Road* and provides another north-south road link in the area, linking Mascot and Green Square. It typically carries two traffic lanes in each direction in the site's vicinity, with additional lanes provided at key intersections.

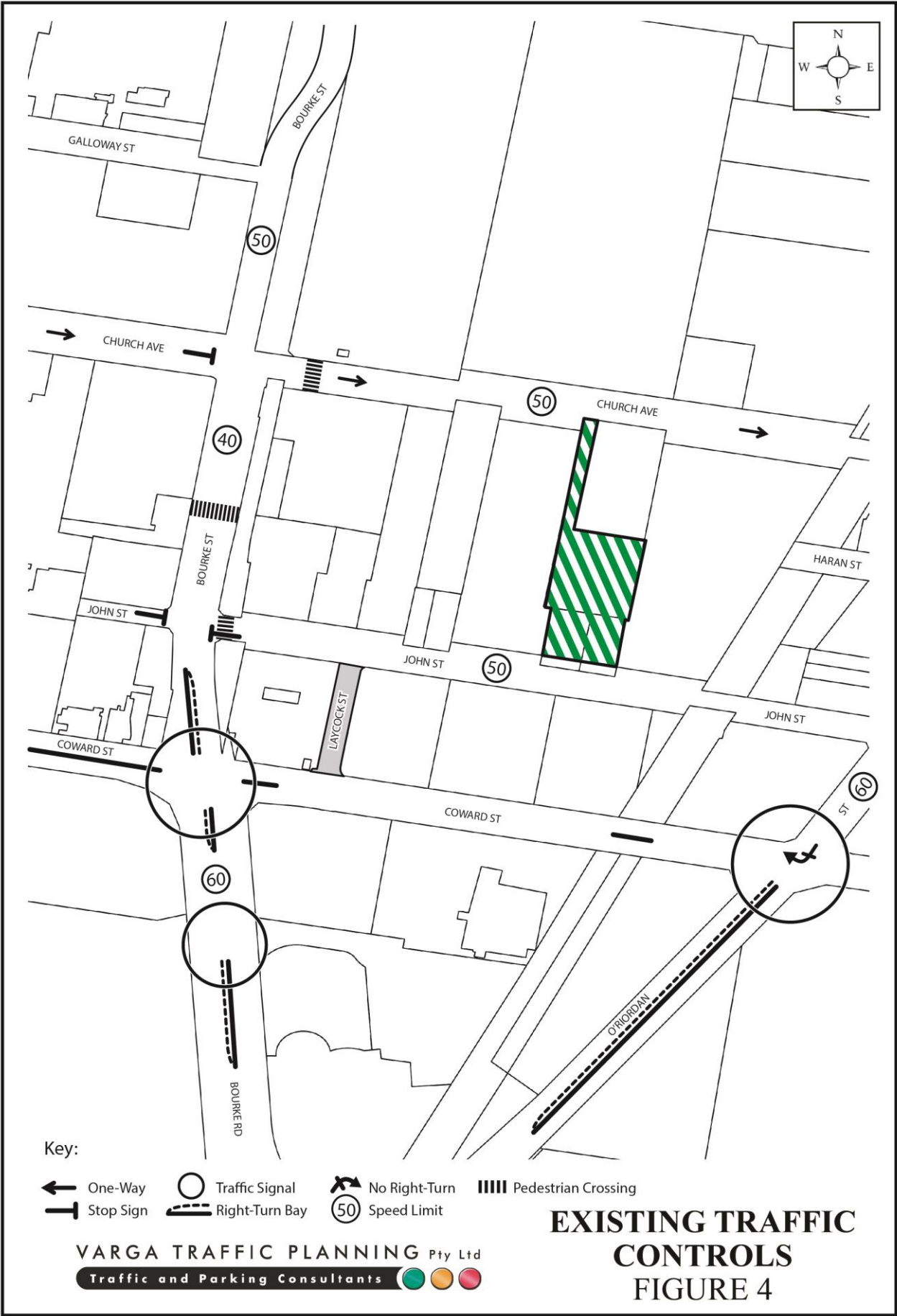
Church Avenue and John Street are local, unclassified roads that are primarily used to provide vehicular and pedestrian access to frontage properties. Kerbside parking is generally permitted on both sides of these road subject to sign-posted restrictions.

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 60km/h SPEED LIMIT which applies to Bourke Road
- a 40km/h SPEED LIMIT which applies to Bourke Street in the Mascot Town Centre
- a 50 km/h SPEED LIMIT which applies to Bourke Street north of Church Avenue and all other local roads in the area
- TRAFFIC SIGNALS in Coward Street where it intersects with Bourke Street and O'Riordan Street





- PEDESTRIAN ZEBRA CROSSINGS in John Street, Bourke Street and Church Avenue
- a ONE-WAY EASTBOUND restriction in Church Avenue
- a NO RIGHT-TURN restriction in O’Riordan Street onto Coward Street.

Existing Public Transport Services

The existing public transport services available in the vicinity of the site are illustrated on Figure 5A and 5B.

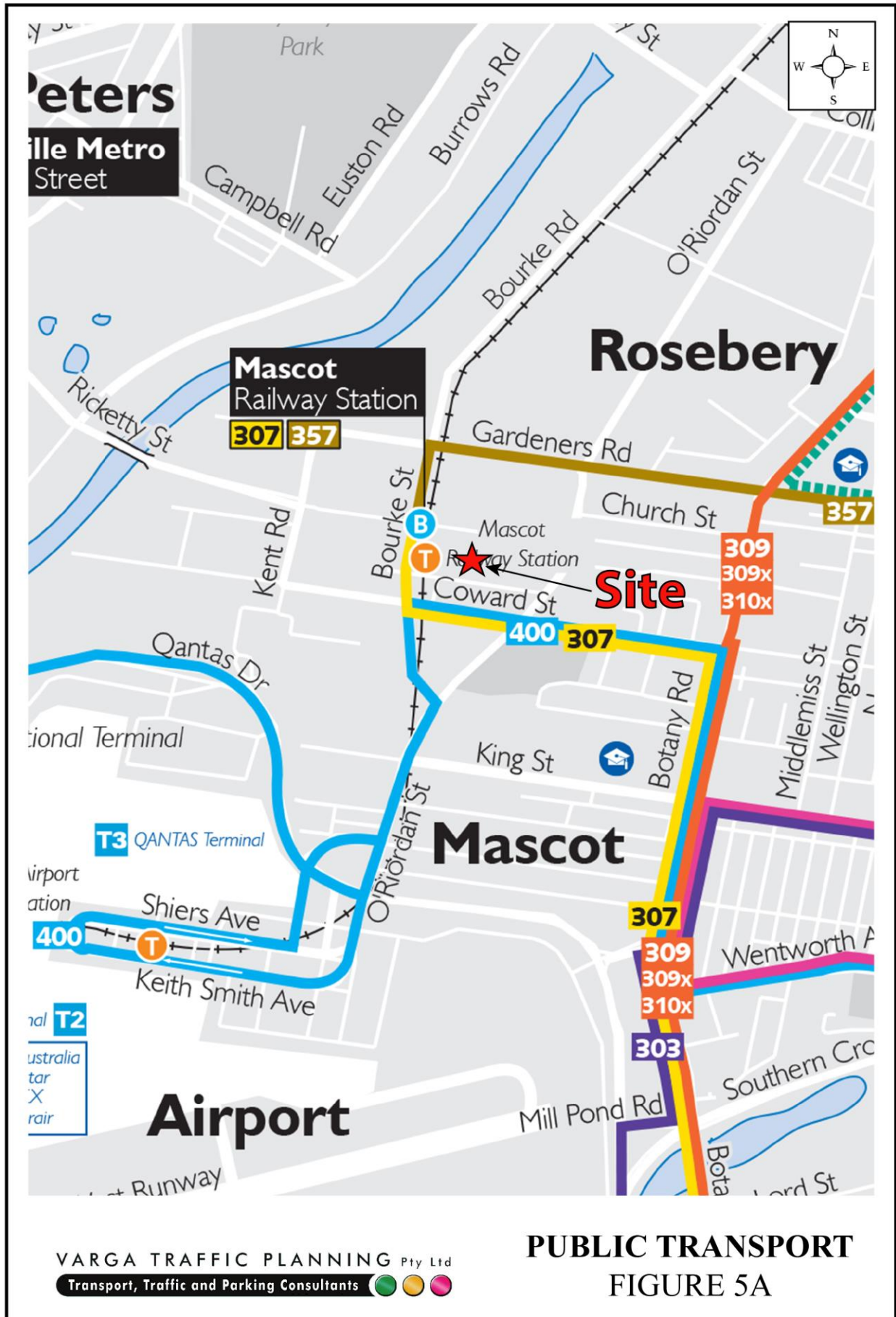
The site is conveniently located within approximately 150 metres or 2 minutes walking distance to / from the Mascot Station. This suburban railway station services the T8 Airport & South Line. Trains typically arrive / depart the station at less than 10 minute intervals throughout the day.

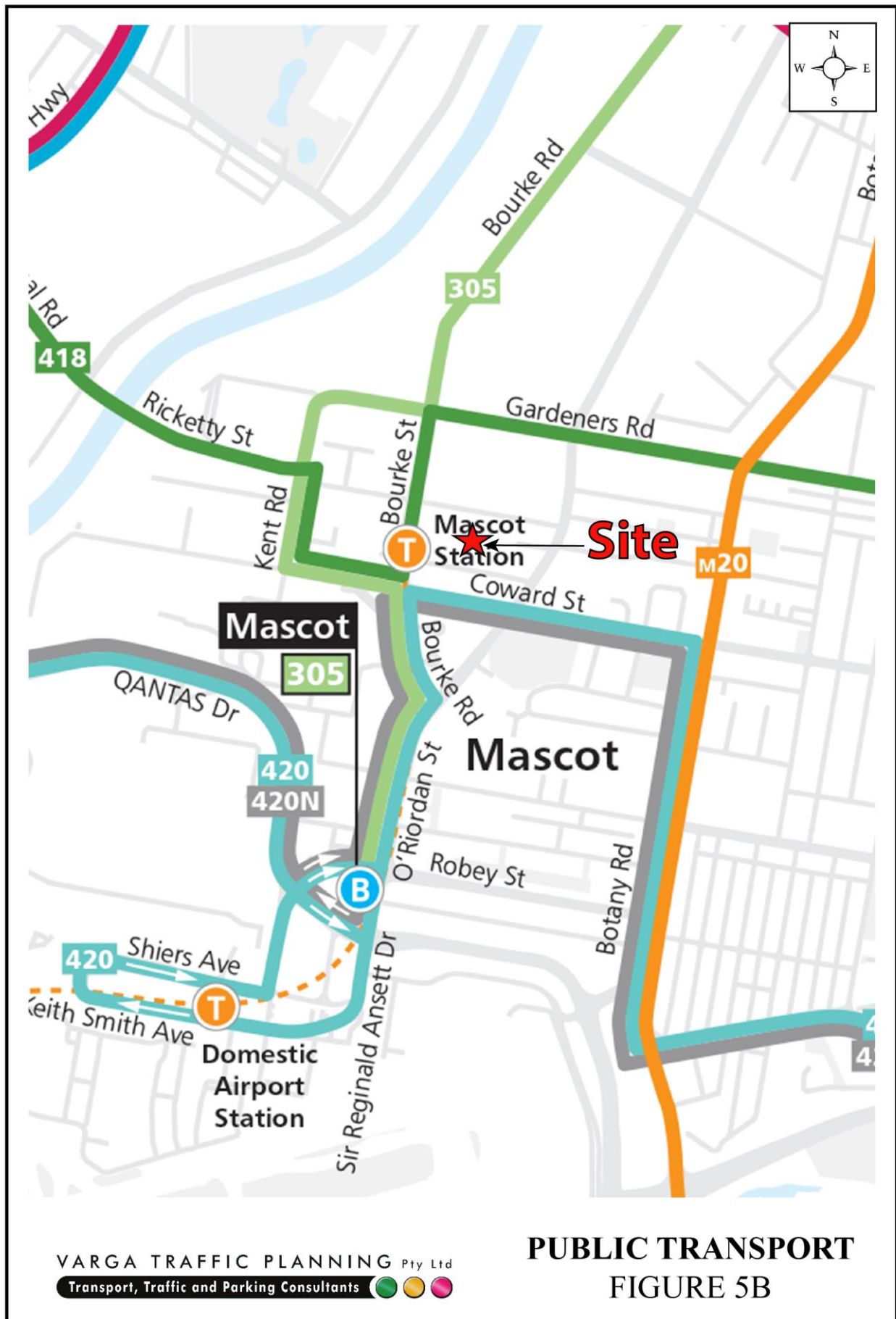
In addition to train services, the following bus routes are all accessible in Coward Street, or in Bourke Street outside Mascot Railway Station, within a short walking distance of the site:

- 64T8 (Sydenham to Green Square via Wolli Creek and Airport)
- 305 (Mascot Stamford Hotel to Redfern)
- 307 (Port Botany Depot to Mascot)
- 400 (Burwood to Bondi Junction via Eastgardens – limited stops)
- 418 (Kingsford to Burwood via Mascot, Sydenham & Dulwich Hill), and
- 420 (Eastgardens to Burwood via Sydney Airport & Rockdale).

Night service 420N (Eastgardens to Burwood via Sydney Airport & Rockdale) and N20 (Riverwood to City Town Hall via Airport) are accessible in Coward Street within a short walk from the site.

On the above basis, it is reasonable to conclude that the site has excellent connectivity to frequent, reliable public transport services.





Cycling Infrastructure

Cycling is the preferred mode of transport by students compare to driving and owning a car. The existing cycleways in the immediate vicinity of the site is shown below, with Bourke Road, Gardeners Road and Coward Street forming the major cycling network in the local area with off-road cycleways connecting to the wider cycling network.



Source: https://www.rms.nsw.gov.au/maps/cycleway_finder

There is also a smart phone app “Bike Citizens - Bicycle GPS” available for download designed to help cyclists in urban areas and provides the following features:

- **Routing Profile** - The route navigation feature can adapt to suit personal needs and cyclists are able to choose between leisurely, fast or convenient route.
- **Bicycle Type** - The route navigation feature takes the cyclists type of bicycle into account. For example, if a person is riding a road bike, roads with tram tracks or cobblestones are avoided.
- **Gradient Profile** - Bike Citizens always highlights the route with the most suitable gradient. More or less tolerance will be allowed depending on the routing profile.

- **Surfaces** - The cycling app searches for the most suitable route in accordance with the type of bicycle that is selected and avoids surface features such as cobblestones or unsurfaced routes.
- **Offline Map Material** – Once the map material has been downloaded, cyclists do not need an internet connection to use the navigation tool. This means that the phone battery will last longer and avoiding potential high roaming charges.

Sustainable Transport Access to Nearby Universities

University of New South Wales (UNSW)

Students have convenient to UNSW via bus route 357.

Alternatively, UNSW is within a short cycling distance of approximately 20 minutes.

University of Sydney

Students have convenient access to University of Sydney via the Sydney Trains T8 line stopping at Central Station where they can then transfer to bus routes M30, 428 or 370.

Alternatively, University of Sydney is within a short cycling distance of approximately 20 minutes.

University of Technology Sydney (UTS)

Students have convenient access to UTS via the Sydney Trains T8 line stopping at Central Station plus a short 550 metres walk to UTS or via bus route 309.

Alternatively, UTS is within a short cycling distance of approximately 23 minutes.

Other Colleges

There are also many other tertiary education establishments and colleges in Sydney positioned in key transport nodes where it can be conveniently accessed via public transport services.

In any event, it should be appreciated that students will have chosen to stay at this location because it is convenient for them to travel *to their particular education institution*, whilst also providing them with convenient access to a wide range of essential shops and services such as those located in the Mascot Town Centre.

Projected Traffic Generation

The traffic implications of a development proposal primarily concern the effects of the *additional* traffic flows generated as a result of a development and its impact on the operational performance of the adjacent road network.

An indication of the traffic generation potential of development proposals are usually provided by reference to the Roads and Maritime Services publication *Guide to Traffic Generating Developments, Section 3 - Landuse Traffic Generation (October 2002)* and the RMS *Technical Direction* (TDT 2013/04a) document.

However, neither the RMS *Guidelines* nor its *Technical Direction* nominate a traffic generation rate for student accommodations. In any event, it is noted that the proposed development does not provide *any* off-street car parking spaces and that *all* students will rely on public transport services or walk / cycle for their daily travel needs.

It is therefore reasonable to conclude that the traffic generation potential of the proposed development will be minimal, if any, during both the AM and PM peak hours.

By way of comparison, the former use of the existing factory buildings could be expected to generate in the order of up to 34 vph during peak periods when assessed in accordance with the traffic generation rates nominated in the RMS *Guidelines* based on its existing floor area.

Accordingly, it is clear that the proposed development would result in a *nett reduction* in the traffic generation potential of the site, thereby contributing to a nett positive transport planning outcome for the Mascot Town Centre, helping to ease traffic congestion 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 6. Key features of those parking restrictions are:

- ¼ HOUR / 1 HOUR PARKING on both sides of Church Avenue
- a CAR SHARE POD on the southern side of Church Avenue
- 1 HOUR PARKING on both sides of John Street

The proposed development makes provision for realignment of the kerb in John Street by removing the existing kerb blister, thereby creating the potential to provide additional on-street kerbside parking in lieu of the existing blister.

Off-Street Parking Provisions

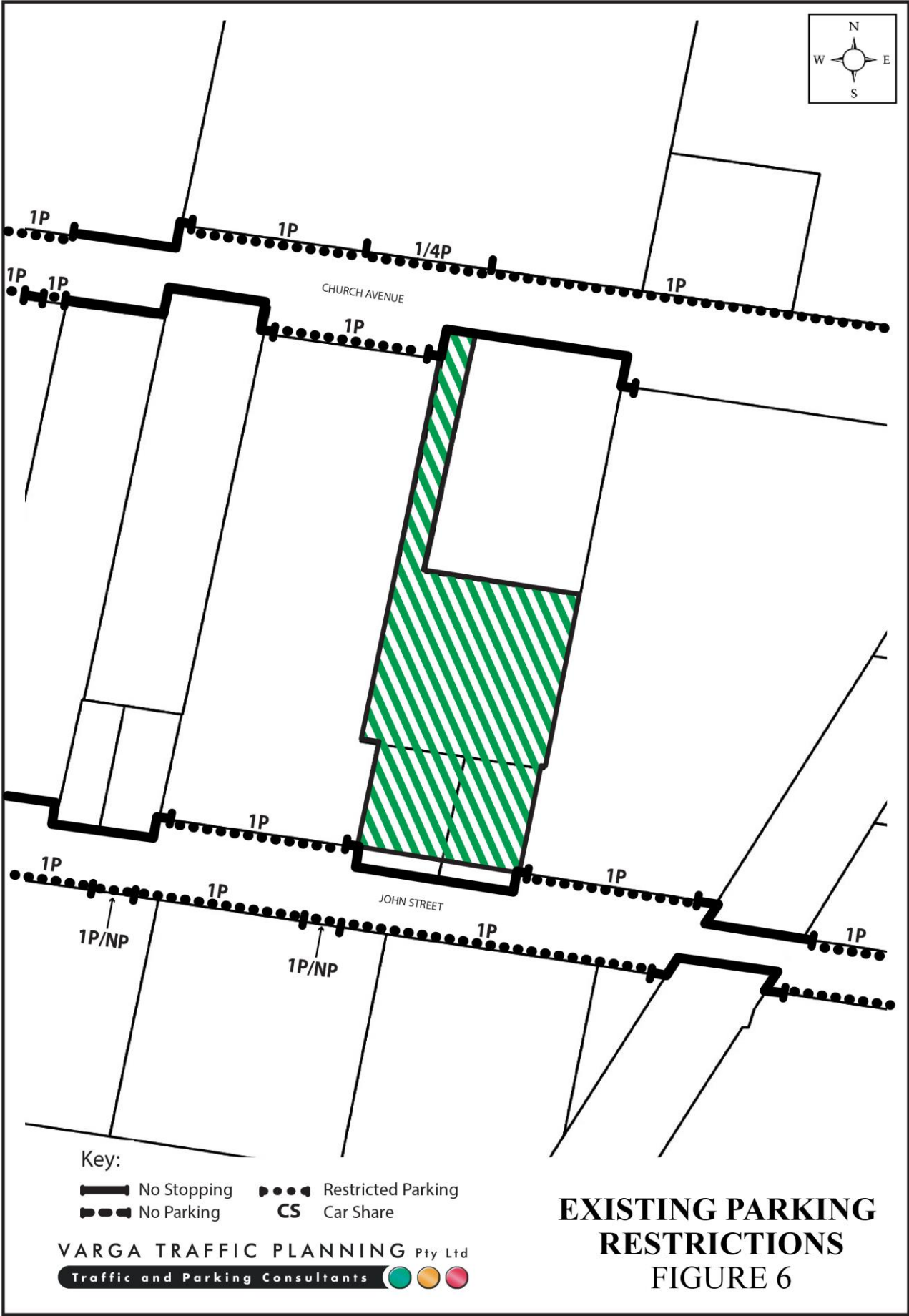
The off-street car parking requirements applicable to the site is provided in the *Botany Bay Development Control Plan 2013 (Amendment 8), Part 3A - Car Parking* document which does not nominate a car parking requirement for student accommodations.

However, the DCP Section 3A states a number of Council objectives and controls that are applicable as follows:

3A..2 General Objectives

Objectives

- O1 To minimise car parking in areas which have good access to public transport to promote sustainable transport*
- O5 To minimise traffic congestion and ensure adequate traffic safety and management*



3A.2 Parking Provisions of Specific Uses

Controls

Council may reduce car parking provision in certain circumstances, as follows:

- *Located adjacent to high-frequency public transport services and / or urban services*
- *Includes management regimes to minimise car use, such as workplace travel plan or on-site car share schemes*

3A.3.3 Traffic and Transport Plans and Reports

Objectives

O2 To ensure development encourages sustainable transport

C4 In order to reduce the on-site parking demand and car dependency, commercial and industrial developments are encouraged to develop Workplace Travel Plans and Transport Access Guides (TAGs). Workplace Travel Plans and Transport Access Guides can assist staff and customers visiting the site by marking good use of public transport, cycling, walking and car sharing for commuting work related journeys and hence reduce car based travel demand.

Council may reduce the requirement for on-site parking provisions when both Workplace Travel Plans and Transport Access Guides (TAGs) are submitted to Council as part of a Development Application.

In addition to the above, a Transport Management and Accessibility Plan (TMAP) for the Mascot Town Centre Precinct was commissioned by Council and prepared by SMEC in April 2012. The TMAP determined that the car mode share of people living and working in Mascot share will need to be reduced from 80% in 2011 to approximately 65% by 2021 and 57% by 2031 so the road network can continue to cope with the growth in local population.

A number of initiatives were thus recommended in the TMAP study including:

- improvement to public transport accessibility and its capacity
- improvement to pedestrian and cycling infrastructure
- improvement to road network and intersections
- management of on-street car parking
- travel demand measures
- restricted off-street car parking.

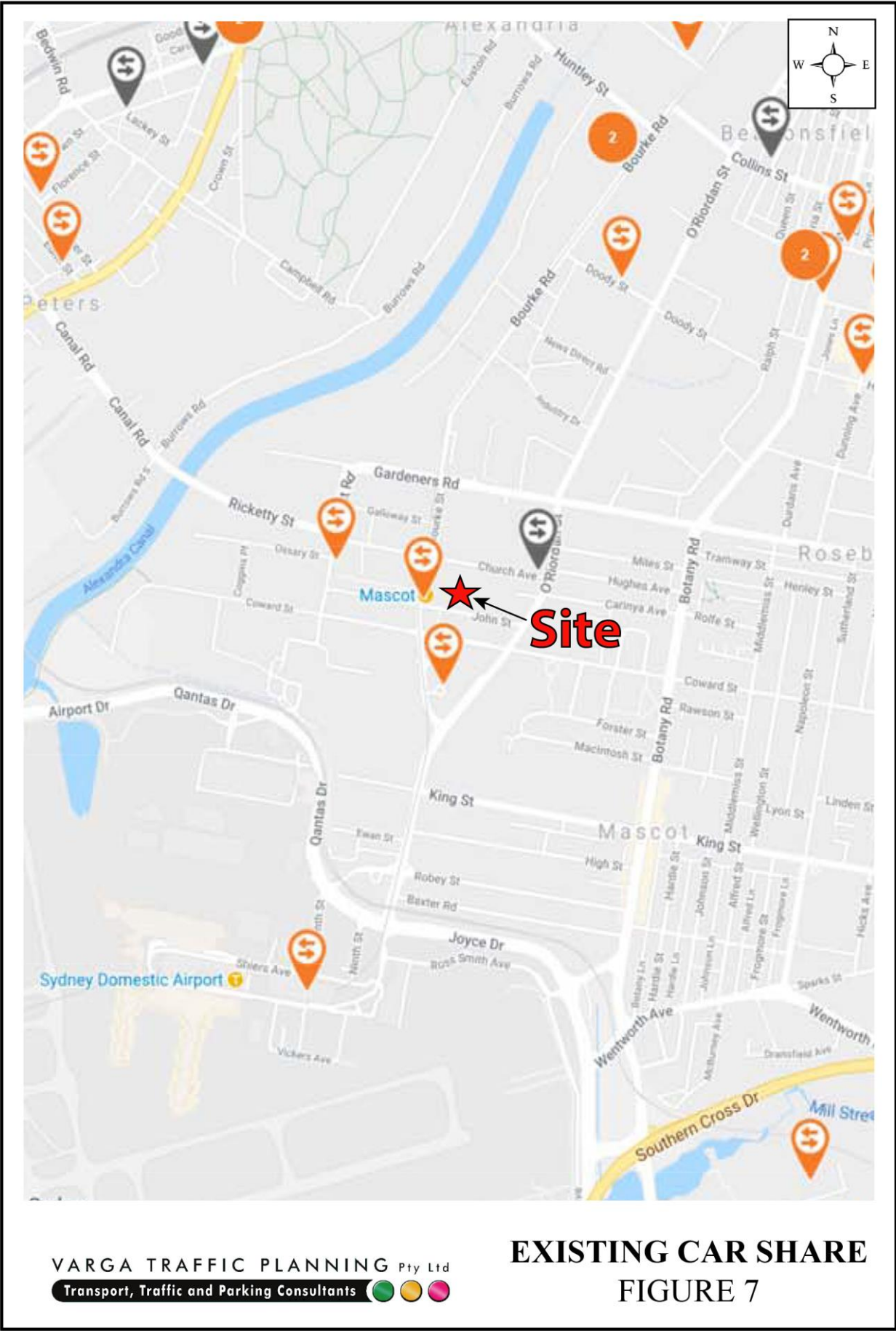
It is noted in this regard that the targeted demographic of the proposed purpose-built student accommodation building comprises young, environmentally aware students seeking to stay in a convenient and highly accessible location that allows them to move about the local area on foot or bicycle, and will utilise train / bus services to travel to more distant destinations.

This is consistent with the student accommodation facilities operated by *Iglu* throughout Australia as detailed in the table below. *Iglu* provides fully furnished modern student accommodation suites on major public transport moves which also have convenient access to a wide range of shops, restaurants, supermarkets and services. None of *Iglu*'s student accommodation facilities provide any car parking for staff or student residents.

Property Name	Bed No	Completion Date	Address
<i>Iglu</i> Centre	98	Dec-12	1 Regent Street, Chippendale NSW 2008
<i>Iglu</i> Chatswood	395	Dec-13	73 Albert Avenue, Chatswood NSW 2067
<i>Iglu</i> Redfern	370	Dec-17	66 Regent Street, Redfern NSW 2016
<i>Iglu</i> Broadway	271	Jan-15	9 Kensington Street, Chippendale NSW 2008
<i>Iglu</i> Central Park	770	Jan-15	6 Central Park Avenue, Chippendale NSW 2008
<i>Iglu</i> Redfern II	265	DA Approved	80-88 Regent Street, Redfern NSW 2016
<i>Iglu</i> Melbourne City	594	May-18	229 Franklin Street, Melbourne VIC 3004
<i>Iglu</i> South Yarra	448	DA Approved	8 Claremont Street, South Yarra VIC 3141
<i>Iglu</i> Brisbane City	414	Dec-15	65 Mary Street, Brisbane QLD 4000
<i>Iglu</i> Kelvin Grove	454	Jan-08	62 Blamey Street, Levin Grove QLD 4059

Should any students require a private vehicle, they can conveniently rent a *car share* vehicle provided by services such as *GoGet* or *Car Next Door* without hassle which are readily available in the nearby area as indicated on Figure 7.

Similarly, the future staff working in the building will find it very convenient to travel to / from work by using public transport or simply by walking / cycling and therefore will not require a car parking space. Driving to work in inner Sydney locations is of the past and is a luxury that no longer exists for the general working population. The State Government's commitment to continuously improve sustainable transport infrastructure seeks to address this very issue, and with a site located next to a suburban railway station, there is no need to provide staff car parking consistent with Council's sustainable transport objectives and TMAP recommendations.



Further reference is made to the RMS' travel demand management principles to contribute to sustainable transport initiatives and reduce congestion:

“As part of the State Plan the NSW Government is pursuing a range of initiatives to reduce car dependence and manage travel demand. Roads and Maritime Services supports the principles of moderating traffic growth by encouraging people to reduce car use and maximise the capacity of the existing road network. Priorities include managing and developing the road network and its use in a way that balances the needs of public transport passengers, cyclists, motorcyclists, pedestrians, motorists and commercial operators.”

Accordingly, a *restrictive* off-street car parking provision is considered appropriate at this location for a student accommodation development is an effective method of travel demand management, and will assist in easing traffic and parking congestion in the Mascot Town Centre.

The proposed development therefore contributes to an overall positive transport planning outcome, and will help reduce car mode share of people living and working in Mascot to 65% by 2021 and 57% by 2031 based on the TMAP findings so the local road network can continue to cope with the growth in local population.

Bicycle Parking

The DCP does not nominate an off-street bicycle parking requirement for student accommodation developments.

Iglu currently operates several student accommodation facilities across Sydney, Melbourne and Brisbane. All of the *Iglu* student accommodation facilities are purpose designed, having been opened within the past 5 years, and provide student accommodation ranging from 98 beds to 770 beds, all with ample bicycle parking facilities.

Surveys of the *Iglu* student accommodation facilities operated by the Applicant throughout eastern Australia have found that the typical bicycle parking requirement equates to approximately 2.5% - 5% of total student numbers, as set out below:

1. *Iglu* Central – 98 beds – bicycle parking space usage varies from 2% to 5%

2. *Iglu* Chatswood – 395 beds – bicycle parking space usage varies from 0.8% to 2.1%
3. *Iglu* Central Park – 770 beds – bicycle parking space usage varies from 2.8% to 4.2%
4. *Iglu* Broadway – 271 beds – bicycle parking space usage approx. 2.2%
5. *Iglu* Redfern I – 370 beds – bicycle parking space usage approx. 3.5%
6. *Iglu* Brisbane City – 414 beds – bicycle parking space usage approx. 4.9%
7. *Iglu* Kelvin Grove – 454 beds – bicycle parking space usage varies between 6% and 8%
8. *Iglu* Melbourne City Stage 1 – 139 beds – bicycle parking space usage approx. 6.5%

On a pro-rata basis, the proposed development could be expected to generate a bicycle parking demand of up to 35 bicycle parking spaces.

That projected bicycle parking demand is comfortably satisfied by the proposed provision of 88 bicycle parking spaces on the lower ground level.

Loading / Servicing Provisions

The proposed student accommodation is expected to be serviced by a variety of commercial vehicles up to and including 8.8 metres Medium Rigid Vehicles (MRV trucks). A dedicated loading bay is proposed at the north-western corner of the building on the lower ground floor level, and will be accessed via the existing easement off Church Avenue.

The manoeuvring areas have been designed to accommodate the swept turning path requirements of these MRV trucks, allowing them to enter and exit the site in forward gear at all times.

The geometric design layout of the proposed truck loading bay facilities has been designed to comply with the relevant requirements specified in the Standards Australia publication

Parking Facilities Part 2 - Off-Street Commercial Vehicle Facilities AS2890.2 in respect of loading dock dimensions and service area requirements for MRV trucks.

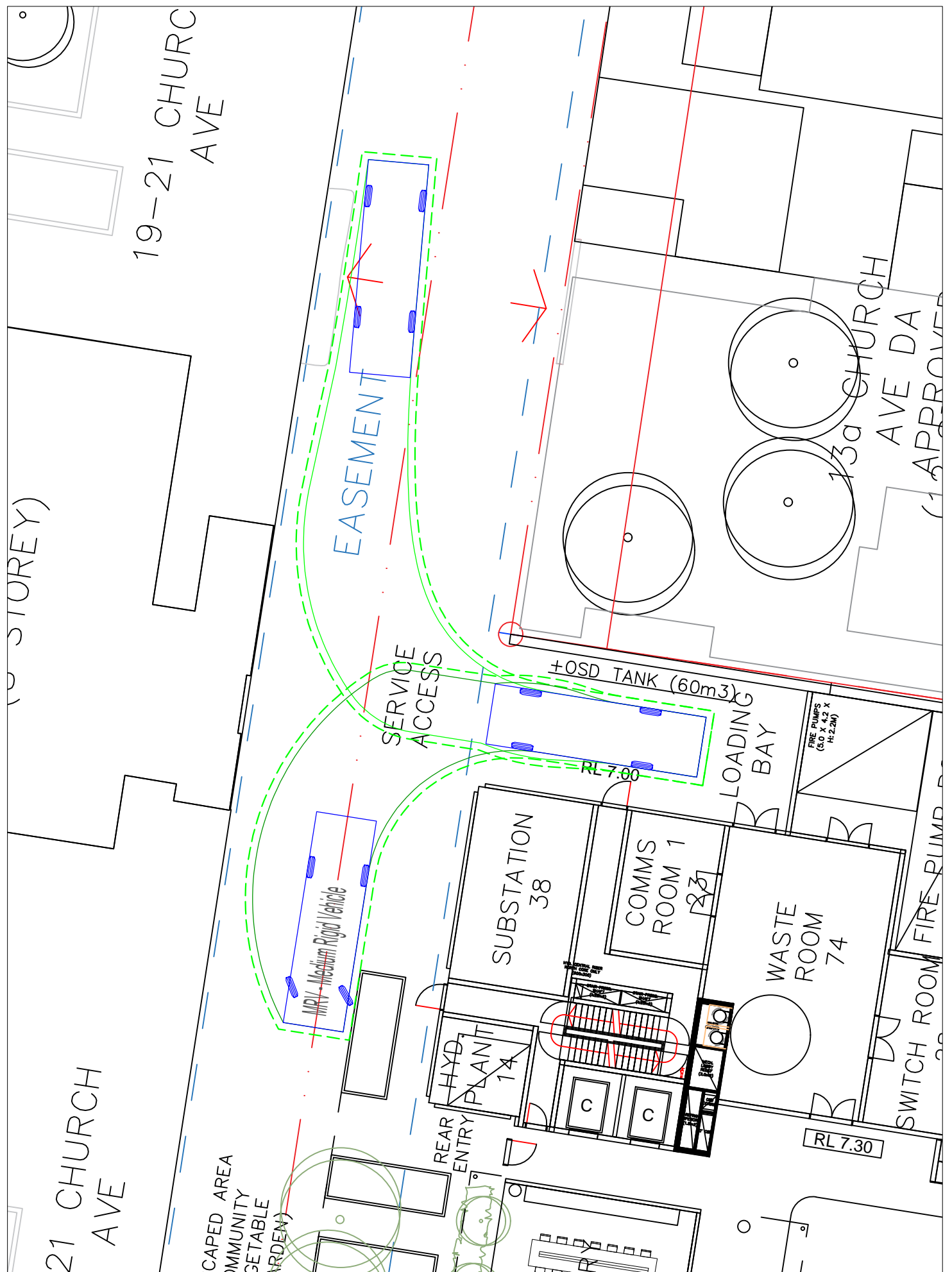
Conclusion

Based on the analysis and discussions presented in this Traffic and Parking Assessment Report, the following conclusions are made:

- the proposed development involves demolition of existing structures on the site to facilitate the construction of a purpose-built student accommodation building operated by *Iglu*
- the new student accommodation building will feature a total of 435 beds with ancillary on-site community, entertainment, lifestyle and education facilities for the use of student residents
- the site has been carefully selected by *Iglu* being situated in the heart of Mascot with convenient access to a wide range of shops, restaurants, supermarkets and services, as well as being an easy commute to education establishments around Sydney via public transport services, noting that the Mascot Railway Station is less than 150 metres walk distance from the site
- a *restrictive* off-street car parking provision at this location for a student accommodation development is an effective method of travel demand management, and will assist in easing traffic and parking congestion in the Mascot Town Centre
- no off-street car parking is proposed, to reduce private vehicle usage and encourage sustainable and active modes of transport contributing to an overall positive transport planning outcome, and will help to reduce car mode share of people living and working in Mascot to 65% by 2021 and 57% by 2031 based on the TMAP findings so the local road network can continue to cope with the growth in local population

- the proposed development will make provision for 88 bicycle parking spaces that will comfortably accommodate the anticipated student bicycle demands based on other sites operated by *Iglu*
- the proposed development is expected to result in a *nett reduction* of some 34 vph in the traffic generation potential of the site during both the AM and PM peak hour when compared with the former factory uses on the site, and will clearly not have any unacceptable traffic implications in terms of road network capacity

On the above basis, it is concluded that the proposed student accommodation development is supportable on traffic planning grounds, and its sustainable transport aspirations is recommended to be endorsed by Council.



VARGA TRAFFIC PLANNING Pty Ltd
 ABN: 88 071 782 537 Phone: + 61 2 9804 3224
 Suite 6, Level 1 PO Box 1808
 20 Young Street Neutral Bay, NSW 2089
 www.vargatrafic.com.au
 Sydney, Australia

PROJECT
 IGLU MASCOT

DRAWING TITLE
 TURNING PATHS 200228
 Figure 8
 ADDRESS
 13B & 6-8 John Street
 Mascot

PROJECT NO.
 19401
 REVIEWED
 RV

DATE DRAWN
 2020-2-28
 PREPARED
 TY

1:200 @ A4

VARGA TRAFFIC PLANNING Pty Ltd
 Transport, Traffic and Parking Consultants

