



# Proposed Student Accommodation 90-102 Regent Street, Redfern Transport Impact Assessment

Prepared for:

The Trust Company (Australia) Limited ATF Wee  
Hur Regent Trust

13 October 2020

The Transport Planning Partnership

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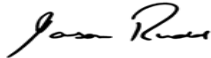
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# 1 Introduction

## 1.1 Background

The Transport Planning Partnership (TPPP) has prepared this transport and accessibility impact assessment (TIA) report, on behalf of The Trust Company (Australia) Limited ATF Wee Hur Regent Trust to accompany a State Significant Development Application (SSDA) to the Department of Planning, Industry and Environment (DPIE).

The SSDA is seeking approval to demolish an existing building at 90-102 Regent Street Redfern and construct in its place an 18-storey student accommodation building comprising 408 beds with ancillary facilities and a small ground floor retail component.

## 1.2 Secretary's Environmental Assessment Requirements

In November 2019, DPIE issued Secretary's Environmental Assessment Requirements (SEARs) for SSD-10382 for a student housing proposal at 90-102 Regent Street Redfern.

Specifically, a transport and accessibility impact assessment of the operational aspects of the proposed student accommodation development is required as part of the SSDA, in accordance with the SEARs for the proposed development.

The issues raised in the SEARs have been considered and addressed in the preparation of this TIA and are summarised in Table 1.1.

**Table 1.1: Review of Compliance with SEARs**

SEARS	Report Reference
<b>Transport, Traffic, Parking and Access – Operation</b>	
<ul style="list-style-type: none"> <li>assess the traffic impacts of the development on the surrounding road network and specify any road upgrade works (local and classified) required to manage traffic impacts and maintain acceptable levels of service</li> </ul>	Sections 2 and 4.7
<ul style="list-style-type: none"> <li>an assessment of the car parking, loading and servicing facilities for the proposed development and compliance with appropriate parking codes and justification for the amount of car parking, loading and servicing facilities provided on the site.</li> </ul>	Section 4.7.1
<ul style="list-style-type: none"> <li>access to, from and within the site from the road network including intersection locations, design and sight distance (i.e. turning lanes, swept paths, sight distance requirements)</li> </ul>	Section 4.8
<ul style="list-style-type: none"> <li>proposed access arrangements including vehicles access, drop off arrangements, service vehicles including waste, emergency vehicles and loading areas for the development</li> </ul>	Section 3
<ul style="list-style-type: none"> <li>sustainable travel initiatives for employees, students and visitors, particularly for the provision of, green travel plans and wayfinding strategies</li> </ul>	Section 3 and 4.11

SEARS	Report Reference
<ul style="list-style-type: none"> <li>details of bicycles parking facilities as these facilities need to be provided in secure, convenient, accessible areas close to main entries incorporating 4 lighting and passive surveillance</li> </ul>	Section 3 and 4.4
<ul style="list-style-type: none"> <li>the existing, proposed and any temporary pedestrian and bicycle routes as well as measures to maintain road and personal safety in accordance with CPTED principles</li> </ul>	Section 4.4 and 4.9
<ul style="list-style-type: none"> <li>an assessment of predicted impacts on road safety</li> </ul>	Section 4.9
<ul style="list-style-type: none"> <li>provisions for end of trip facilities and on-site bicycle parking in accordance with relevant RMS/Council guidelines and Australian Standards</li> </ul>	Section 4.4
<ul style="list-style-type: none"> <li>demonstrating adequate provision for servicing of the site in relation to loading demands, size of waste storage and collection area and method of collection to/from and within the site ensuring all serving and loading occurs on-site and does not rely on kerbside controls.</li> </ul>	Section 4.8
<b>Transport, Traffic, Parking and Access – Construction</b>	
<ul style="list-style-type: none"> <li>an assessment of traffic and transport impacts during construction and how these impacts will be mitigated for any associated traffic, pedestrians, cyclists, including the preparation of a draft Construction Pedestrian Traffic Management Plan. This Plan shall include vehicle routes, truck numbers, indicative construction program, hours of operation, access arrangements and traffic control measures for all works</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>details of construction vehicle routes, peak hour and daily truck movements, work zone location, haulage routes, hours of operation, access arrangements at all stages of construction and traffic control measures for all works</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>an assessment of the likely construction traffic impacts, such as required road/lane closures and diversions, impacts on bus and 'point to point' transport, impacts on pedestrian and cycle movement, and taking into account other construction activities</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>details of proposed mitigation measures should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>an assessment of construction impacts on road safety at key intersections and locations for potential pedestrian, vehicle and bicycle conflicts</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>an assessment of cumulative construction impacts of projects including Sydney Metro City and Southwest</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>details of any temporary cycling and pedestrian access during construction</li> </ul>	Section 4.12 & Framework CPTMP (separate document)
<ul style="list-style-type: none"> <li>details of access arrangements for workers, emergency services and the provision for safe and efficient access for loading and deliveries</li> </ul>	Section 4.12 & Framework CPTMP (separate document)

## 2 Existing Conditions

### 2.1 Site Description

The subject site is located at 90-102 Regent Street, Redfern, and falls within the local government area of City of Sydney Council.

Based on the *State Environmental Planning Policy (Major Development) 2005 Redfern – Waterloo Authority Sites – Land Zoning Map*, the site is zoned as Business Zone – Commercial Core and is bounded by Regent Street, Marian Street and William Lane on the east, north and west boundary respectively.

The site is currently occupied by a row of two-storey attached terraces with ground floor retail at 90-96 Regent Street and an attached four storey mixed use building with ground floor retail at 98-102 Regent Street.

Notably, the subject site is surrounded by a number of existing, under construction or proposed student accommodation sites.

In addition to this, TTPP have recently prepared the traffic impact assessment for a proposed 18-storey student accommodation site at 13-23 Gibbons Street and is currently under assessment on the NSW Government Major Projects website.

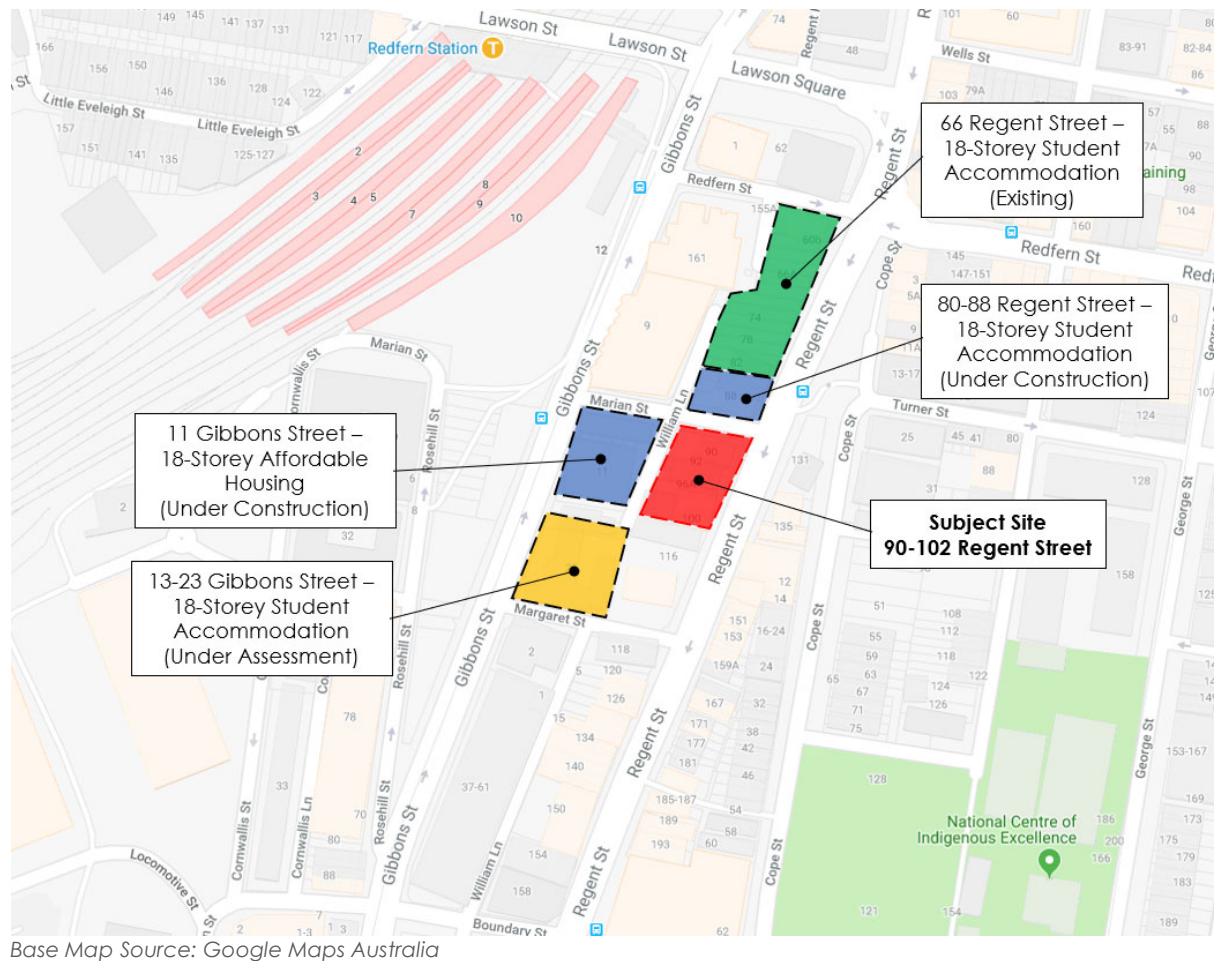
The location of the site and its surrounds is presented in Figure 2.1.

The surrounding land uses predominately comprise a mix of residential, commercial and retail shop/café use.

Redfern Railway Station is located approximately 200m (walking distance) north-west of the site and provides various rail service connections to numerous destinations across Sydney.

In addition to the existing Redfern Station, the State Government is currently constructing Stage 2 of the Sydney Metro Project (City and Southwest). The Metro Project includes a new station at the corner of Raglan Street and Cope Street which is approximately 400m walking distance or a 6-minute walk from the subject site. The Metro Project is expected to be operational by 2024 and provides an additional alternative to public transport services in the area. The future Sydney Metro Project is further discussed in Section 2.5 below.

**Figure 2.1: Site Location**



## 2.2 Road Network

### 2.2.1 Regent Street

Regent Street is a one-way southbound State Road that extends along the eastern boundary of the site. The road runs in a north-south direction with two traffic and two parking lanes across a carriageway width of 12m.

Regent Street provides one-hour restricted on-street parking along the site's road frontage. The posted speed limit along Regent Street at the site is 60km/hr.

### 2.2.2 Gibbons Street

Gibbons Street is a one-way northbound State Road which runs parallel to Regent Street, west of the site.



Gibbons Street provides 4 lanes, including 2 traffic lanes and 2 kerb side parking lanes. The eastern kerbside lane operates as a peak period clearway (6am-10am and 3pm-7pm) on weekdays. Time restricted parking is provided outside of clearway hours.

Between Marian Street and Redfern Station, the western kerbside lane of Gibbons Street a designated bus stop zone.

The posted speed limit along Gibbons Road is 50km/hr.

### 2.2.3 Marian Street

Margaret Street is a two-way local road that extends along the northern boundary of the site providing a road connection between Regent Street and Gibbons Street.

Time restricted 1-hour on-street parking is provided on the northern side of Marian Street directly opposite the site. A carshare space is provided on the northern side of Marian Street near the intersection with Gibbons Street.

An existing vehicle site access driveway is currently provided off Marian Street for 90 Regent Street (see Figure 2.2).

### 2.2.4 William Lane

William Lane is a narrow (approx. 4.5m) two-way laneway that extends in a north-south alignment. The laneway provides rear access to properties for parking and loading activities. Access to the laneway is provided off Marian Street. No parking is provided on either side of the laneway.

## 2.3 Existing Site Access

As indicated previously, vehicular access to the existing properties are currently provided off Marian Street and William Lane via a separate individual driveway/garage parking measuring approximately 3m in width. Pedestrian access is provided along both Marian Street and Regent Street.

Figure 2.2 shows the location of the existing vehicle and pedestrian access to the existing properties.

**Figure 2.2 Vehicle and Pedestrian Access to Site**



Base Map Source: Google Maps

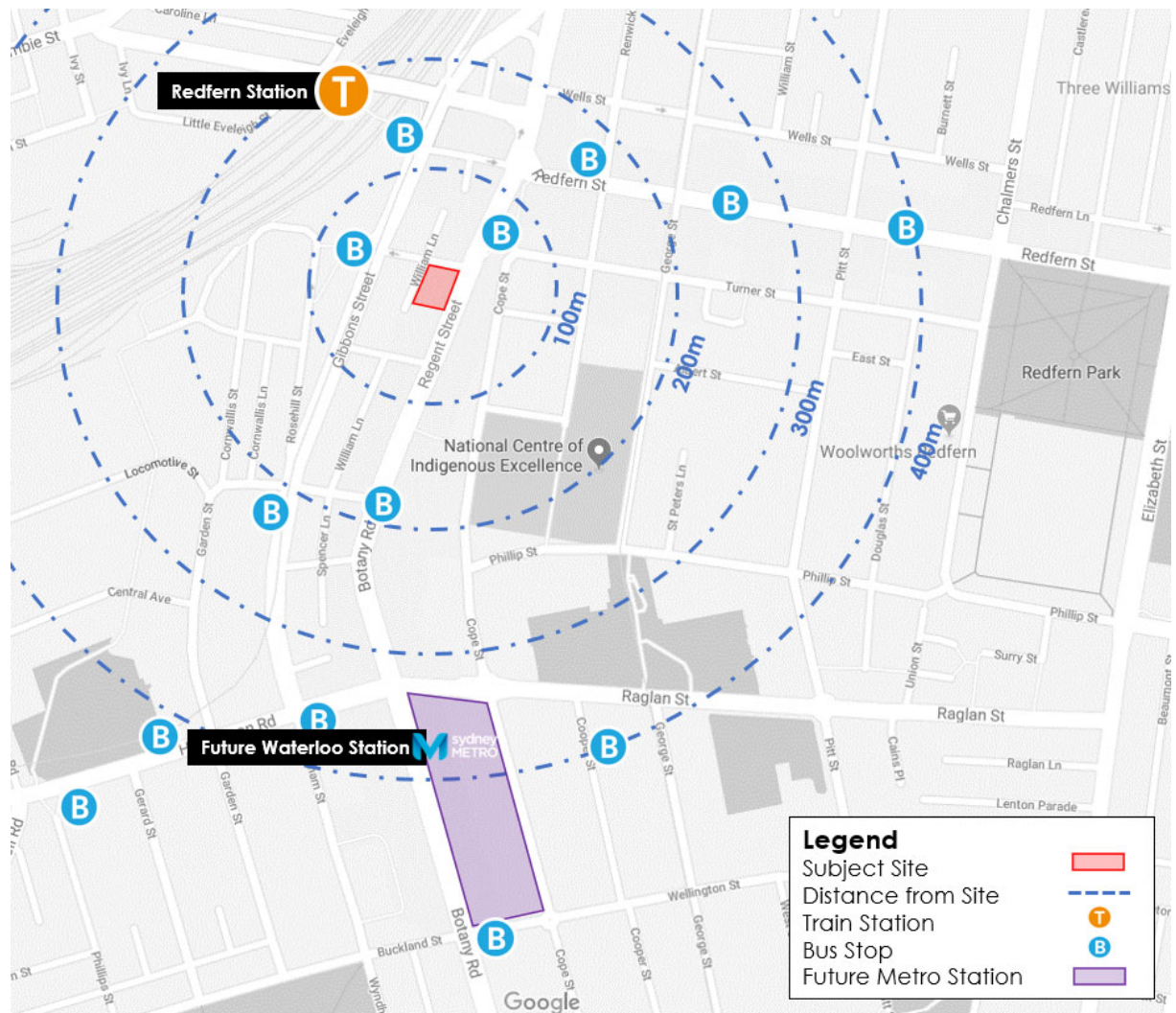
## 2.4 Public Transport Facilities

The subject site is located within close proximity to existing high frequency services, being located 200m south-east of Redfern Station (approx. three-minute walk). The station is serviced by a number of railway lines that provide connections to various destinations across the Sydney Metropolitan area including the Sydney CBD.

In addition to this, there are a number of bus stops located within the immediate vicinity of the site, which provide good public transport connectivity to surrounding suburbs including Mascot, Matraville, Eastgardens and City suburbs.

Figure 2.3 shows the available public transport facilities within close proximity to the site.

**Figure 2.3: Surrounding Public Transport Facilities**



Source: Google Maps Australia

Table 2.1 and

Table 2.2 present a summary of the existing train and bus services and associated frequencies during the weekday morning and evening peak periods respectively.

**Table 2.1: Existing Train Services and Frequencies at Redfern Station**

Route	Route Description	Typical Weekday Frequency	
		Morning Peak	Evening Peak
T1 North Shore and Western Line	Berowra to City via Gordon	3-6 mins	3 mins
	City to Berowra via Gordon	3 mins	3-5 mins
	Emu Plains or Richmond to City	3 mins	3-7 mins
	City to Emu Plains or Richmond	3-7 mins	3 mins
T2 Inner West and Leppington Line	Parramatta or Leppington to City	2-5 mins	5-12 mins
	City to Parramatta or Leppington	2-5 mins	2-6 mins
T3 Bankstown Line	Liverpool or Lidcombe to City via Bankstown	3-6 mins	3-15 mins
	City to Liverpool or Lidcombe via Bankstown	4-15 mins	4-15 mins
T4 Eastern Suburbs and Illawara Line	Waterfall or Cronulla to Bondi Junction	3 mins	3 mins
	Bondi Junction to Waterfall or Cronulla	3-6 mins	3 mins
T8 Airport and South Line	Macarthur to City via Airport of Sydenham	15 mins	-
	City to Macarthur via Airport of Sydenham	-	15 mins
Blue Mountains Line	Bathurst and Lithgow to Central	30 mins	-
	Central to Bathurst and Lithgow	-	30 mins
Central Coast and Newcastle Line	Newcastle Interchange to Central via Strathfield or Gordon	30 mins	-
	Central to Newcastle Interchange via Strathfield or Gordon	-	30 mins
South Coast Line	Bomaderry or Port Kembla to Central and Bondi Junction	20 mins	20 mins
	Bondi Junction and Central to Bomaderry or Port Kembla	30 mins	20 mins

**Table 2.2: Existing Bus Services and Frequencies**

Route	Route Connectivity	Typical Weekday Frequency During Peak Hour
301	Eastgardens to Redfern via Mascot	30 mins
302	Eastgardens to Redfern via Kingsford	1 hour
303	Sans Souci to Redfern via Mascot	30 mins
305	Mascot and Central	20 mins
308	City and Marrickville Metro via Redfern	20 mins
309	Matraville and Central	10 mins
310	Eastgardens and Central via Botany Road	12 mins
L09	Matraville and Redfern	15 mins
N11	City and Cronulla	N/A; Night ride bus only
N20	City and Riverwood	N/A; Night ride bus only

A map of the existing bus routes within the immediate vicinity of the site is shown in Figure 2.4.

## 2.5 Sydney Metro Project – Waterloo Station

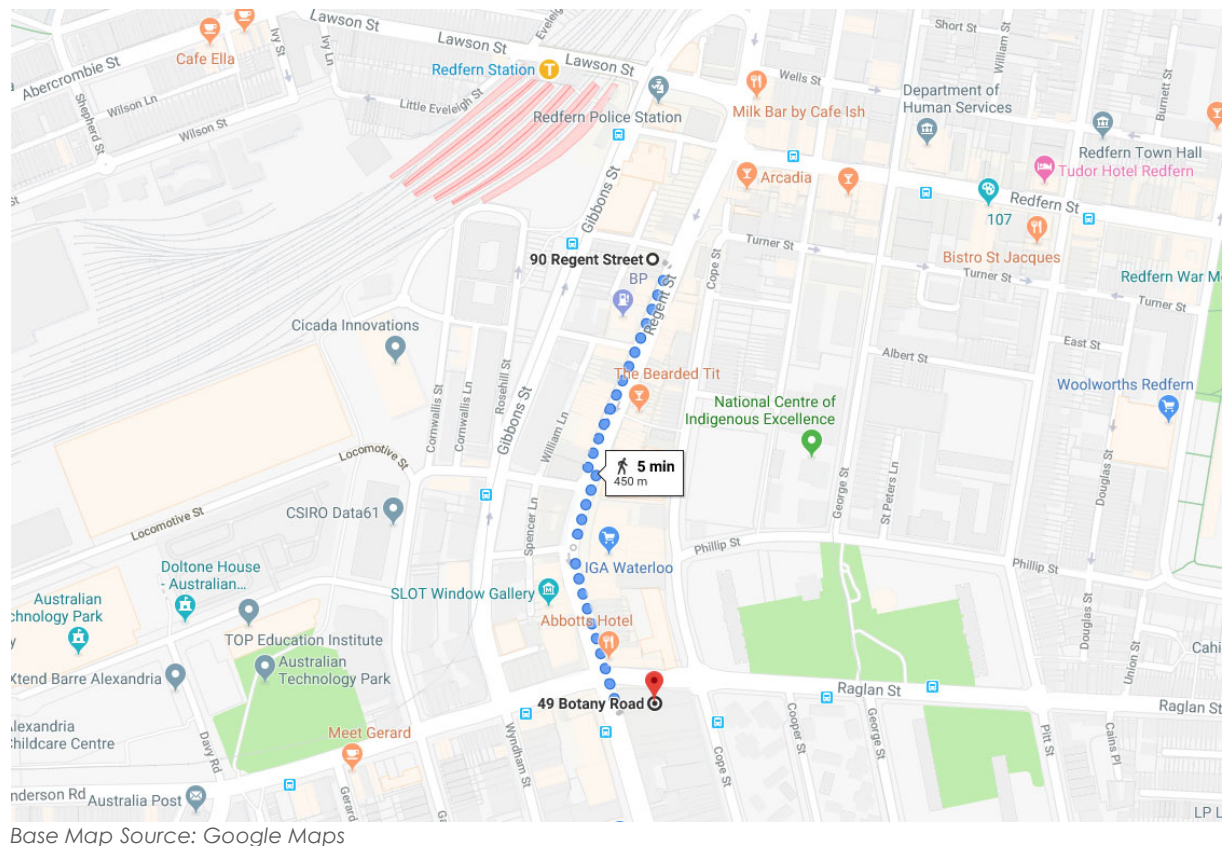
The Sydney Metro is Australia's biggest public transport project which will deliver 31 metro stations and will increase the capacity of train services entering the Sydney CBD from about 120 services an hour today to up to 200 services beyond 2024.

Waterloo Station will be an underground station that will be along the future Sydney Metro Line. The station is located approximately 450m south from the site at the corner of Raglan Street and Cope Street.



Source: Transport for New South Wales

**Figure 2.5: Walking Distance to Future Waterloo Metro Station**



## 2.6 Pedestrian Infrastructure

Pedestrian facilities are generally well provided within the immediate vicinity of the subject site being located near Redfern Station. Sealed pedestrian paths are provided on both sides along surrounding streets, including Gibbons Street, Margaret Street, Marian Street and Regent Street. In addition to this, a signalised pedestrian crossing is provided across Gibbons Street to provide safe and dedicated passage to/from Redfern Station.

No footpaths are provided along William Lane. However, this road is characterised as low-traffic service lane which generally only serves as access to parking areas of adjacent developments.

## 2.7 Cycle Infrastructure

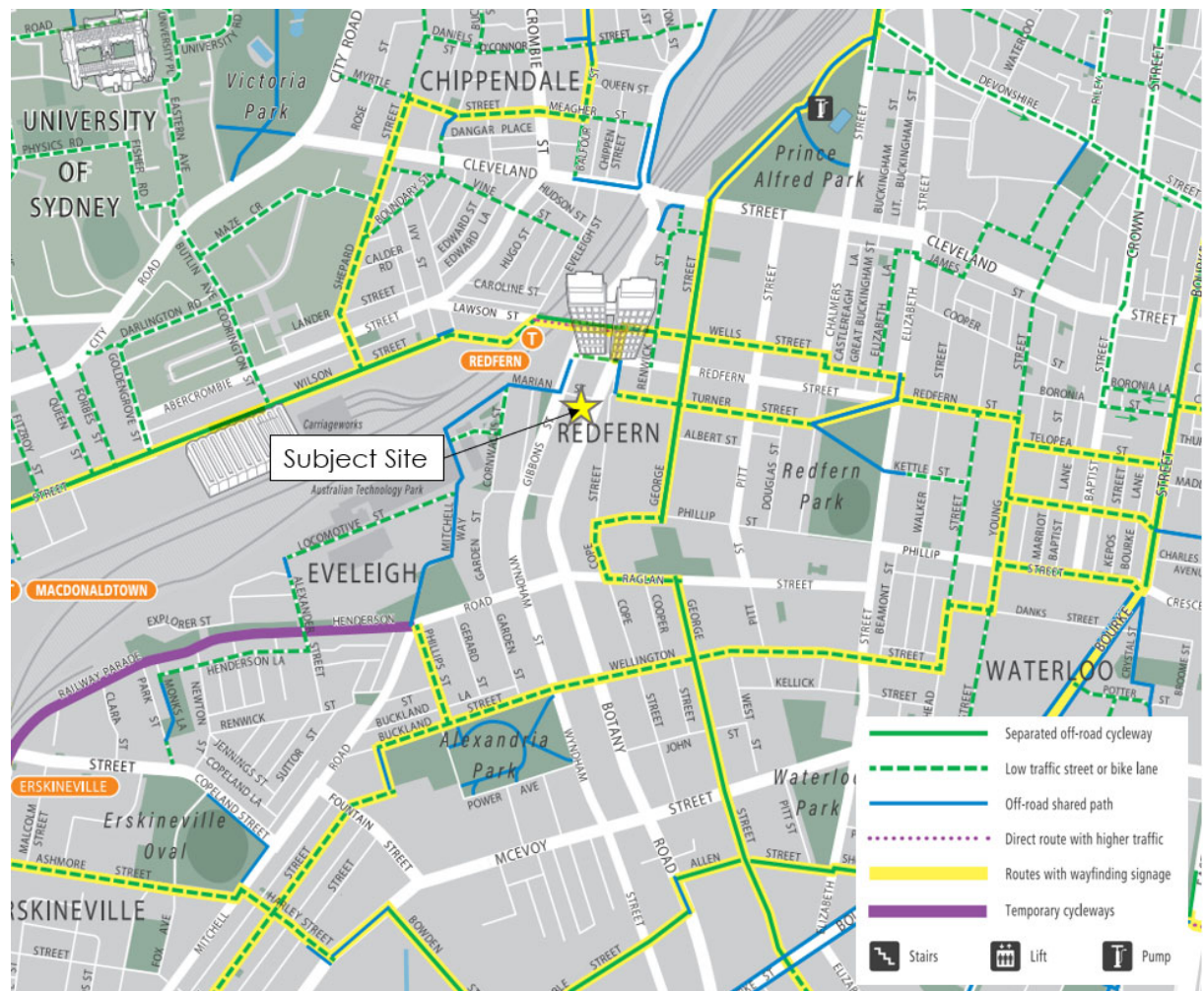
An off-road shared path is provided along Gibbons Street and Marian Street north of the site which provides good cycle linkages to Redfern Station and commercial and retail establishments. This shared path also connects to on-road and off-road cycling paths towards



University of Sydney, University of Technology Sydney, University of Notre Dame, TAFE and Sydney CBD.

The existing cycling network within the vicinity of the site is shown in Figure 2.6.

**Figure 2.6: Existing Cycle Routes and Infrastructure**



Source: City of Sydney Cycleway Map

## 3 Proposed Development

### 3.1 Proposal Description

The proposed development involves the demolition of the existing buildings on-site and the construction of an 18-storey student accommodation building with ancillary facilities and a small ground floor retail component.

The proposed development will comprise:

- Student Accommodation (381 apartments)
  - Single bed 354 apartments (354 beds)
  - Twin share bedroom: 27 apartments (54 beds)
- Retail 67m<sup>2</sup>
- Bicycle parking 134 spaces in secure bike stores
- Loading Dock accommodating a Small Rigid Vehicle (SRV)
- Reception / Office
- Common areas for student residents including:
  - Gym
  - Games area
  - Lounge spaces
  - Kitchen and dining
  - Laundry
  - Outdoor area

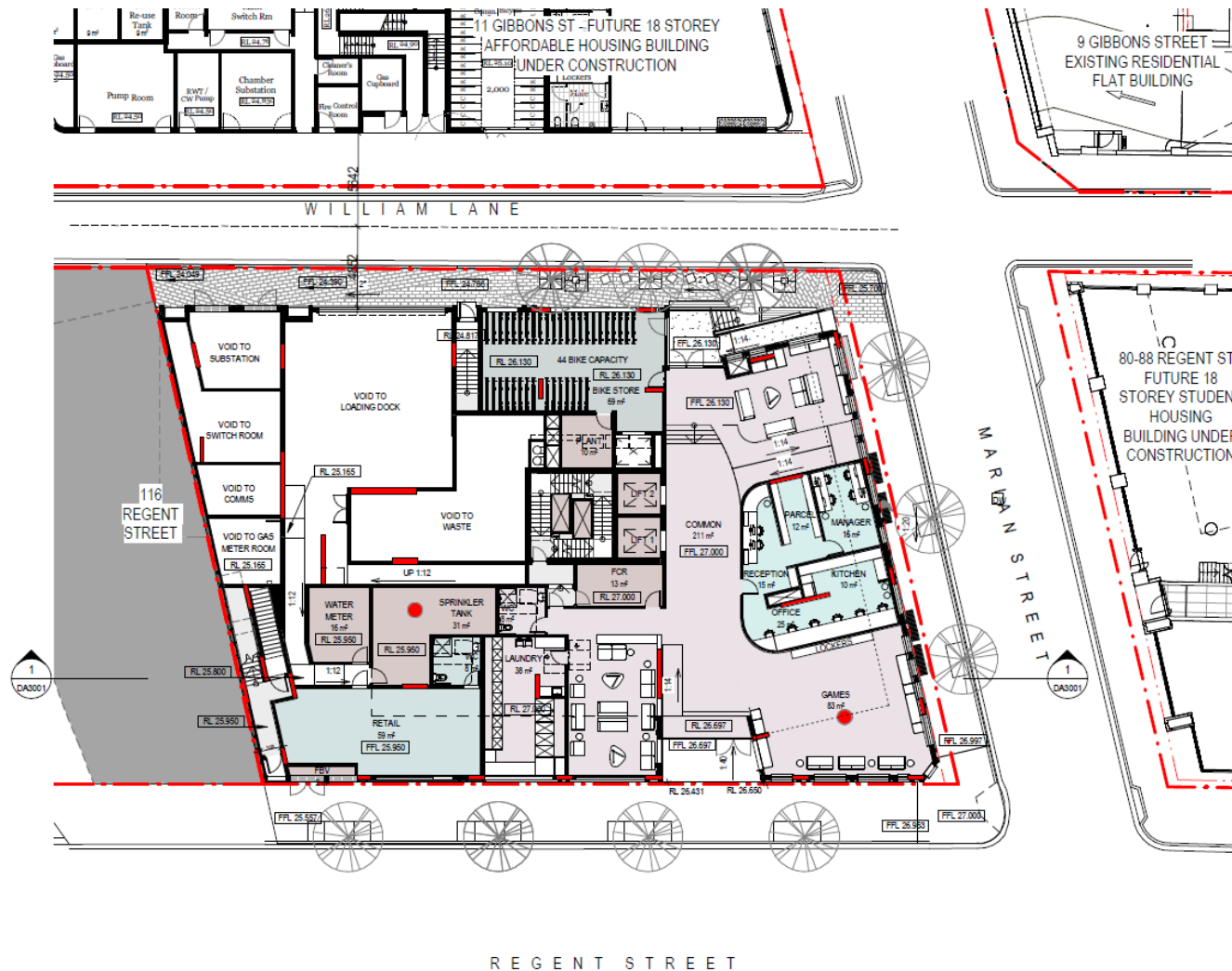
The proposed site layout plan prepared by AJ+C Architects is shown in Figure 3.1 and Figure 3.2.

### 3.2 Proposed Waste Collection and Loading Facilities

All loading and unloading activities will be undertaken on-site within the proposed loading area with vehicle access provided via William Lane.

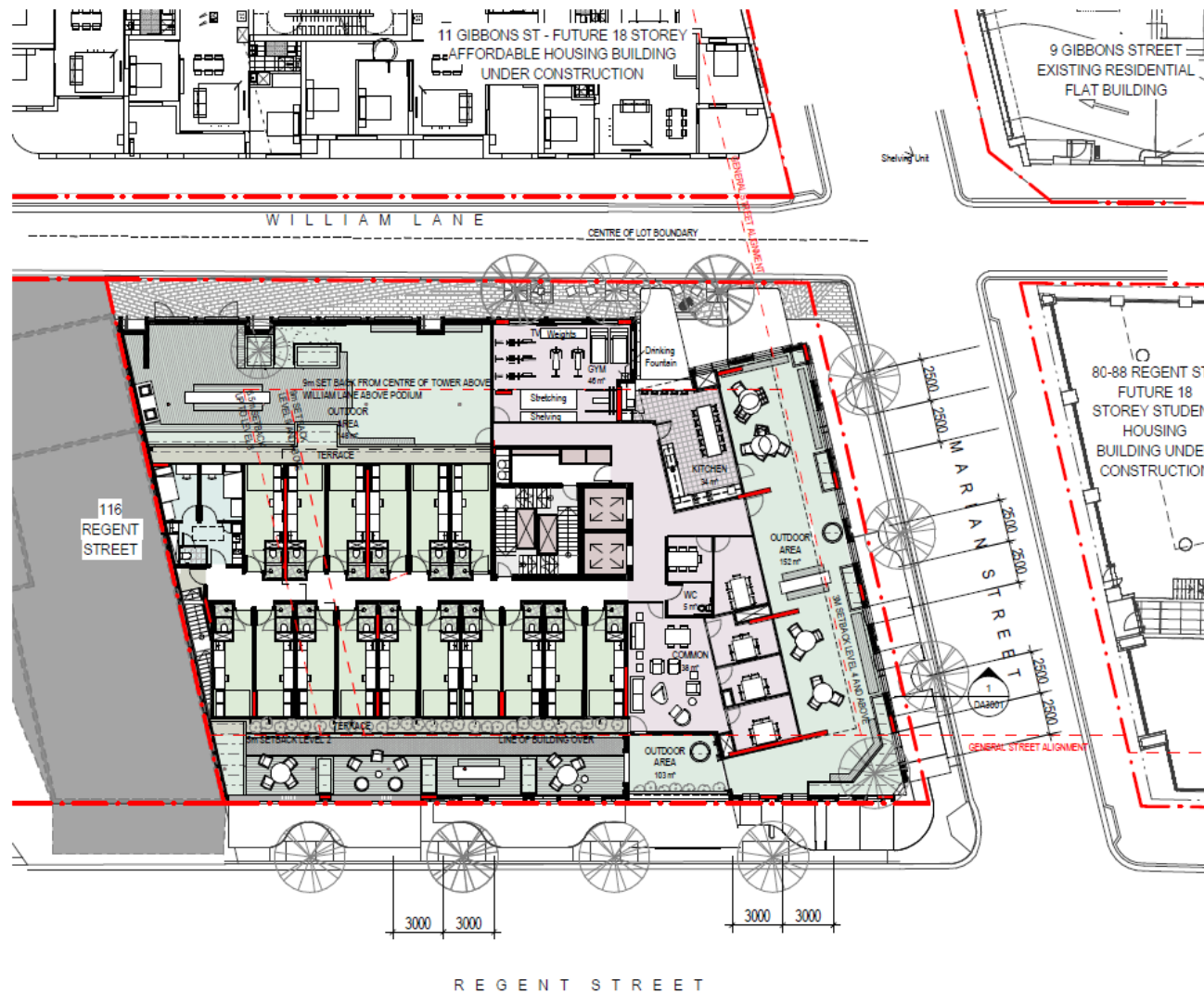
The proposed loading arrangements are shown in the Lower Ground Floor plan prepared by AJ+C Architects as shown in Figure 3.3.

Figure 3.1: Site Layout Plan (Ground Floor – Level 1)



Source: AJ+C Architects (24/9/20)

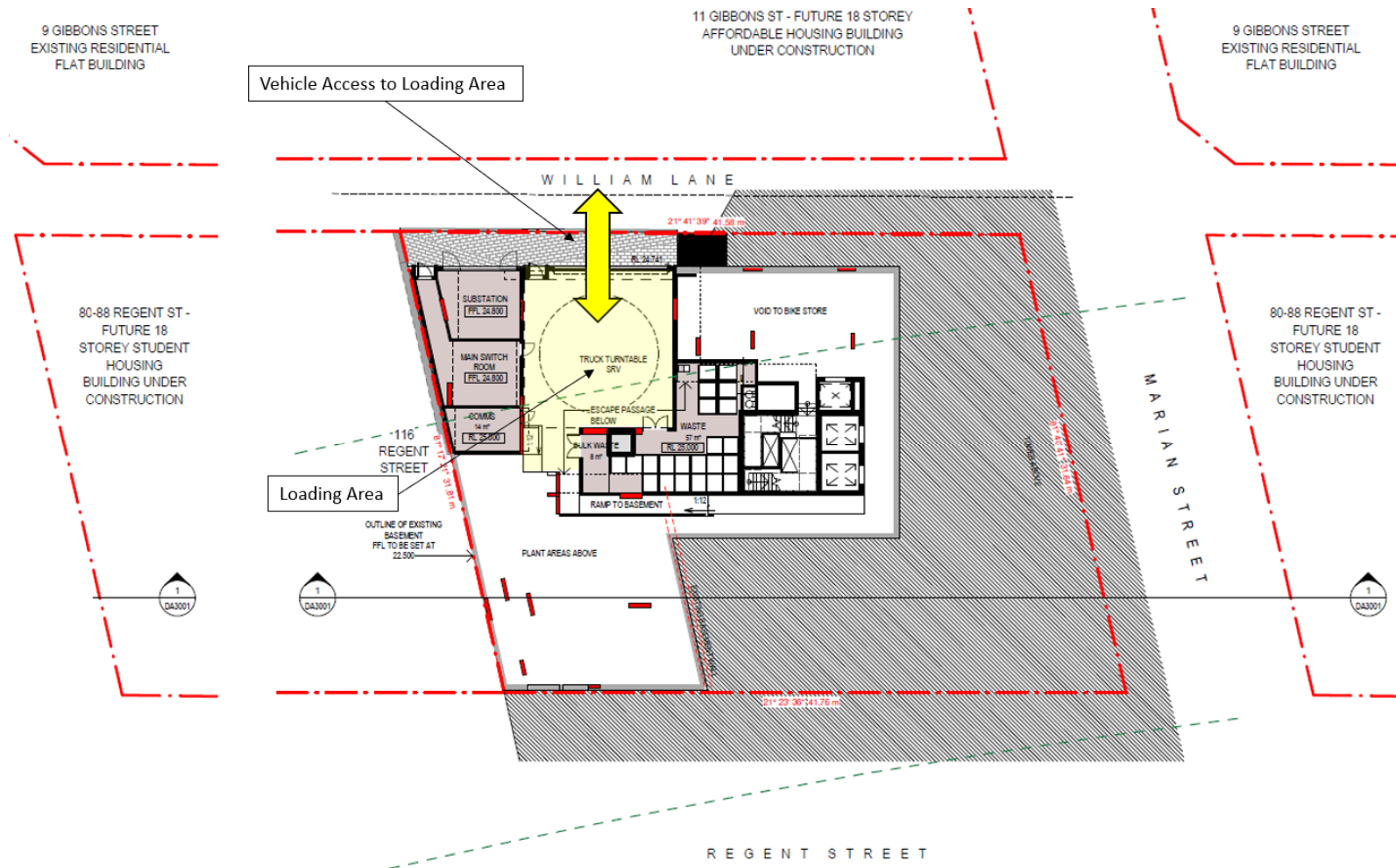
Figure 3.2: Level 2 Floor Plan



Source: AJ+C Architects (24/9/20)



**Figure 3.3: Vehicle Loading Area (Lower Ground Floor)**



Source: AJ+C Architects (24/9/20)

A vehicle turntable will be provided within the loading area to allow vehicles to enter/exit the site in a forward direction.

The loading area has been designed to accommodate a Small Rigid Vehicle (SRV 6.4m long) as defined by AS2890.2.

## 4 Assessment of Proposed Development

### 4.1 Strategic Transport Context

As referenced in the SEARs there are a range of strategic planning documents, policies and guidelines that apply to the proposed development site.

With regard to traffic and transport, the implications of these strategic directions to the proposed development are set out below.

#### ***Future Transport Strategy 2056 (and supporting Plans)***

Future Transport 2056 Services and the associated Infrastructure Plans (SIPs) set out initiatives to be delivered in the first 10 years of the 40 year vision across Regional NSW and in Greater Sydney.

The Future Transport 2056 Strategy is focused on six key outcomes for the future of mobility in the state, which together aim to positively impact the economy, communities and environment of NSW. The key outcomes are defined as:

1. Customer focused
2. Successful places
3. A strong economy
4. Safety and performance
5. Accessible services
6. Sustainable

The Future Transport Strategy 2056 is supported by a range of plans which include with relevance to the site the following:

- Greater Sydney Services and Infrastructure Plan; and
- South East Sydney Transport Plan.

Both these plans have a core objective to provide for future population growth in an economic, social and sustainable manner to create liveable communities.

With regard to transport, it is recognised that the site locality has the characteristics whereby there are opportunities for people travelling to, from and within South East Sydney to choose walking, cycling and public transport as efficient modes of transport. These modes are recognised to be convenient and contribute to our sustainable future and build community resilience.

The proposed zero on site car parking provision for the proposed student accommodation development is consistent with the strategic directions of the Future Transport Strategy and its supporting plans.

## 4.2 Agency Consultation

In addition to the agency comments to the request for SEARs, Requests for agency feedback on the traffic and transport aspect of the proposal have been sought from the Sydney Coordination Office and TfNSW (formerly NSW Roads and Maritime). Formal feed back from the agencies has not yet been received.

Notwithstanding the above, TTPP has reviewed agency comments on similar SSDA for student accommodation in the surrounding locality.

Key matters raised in response to these similar developments can be summarised to be:

- bicycle facilities should be provided in secure, convenient, accessible areas close to the main entries
- conditions of consent to include the requirement for detailed Construction Pedestrian Traffic Management Plans (CPTMP) to be prepared in consultation with the Sydney Coordination Office within TfNSW.
- all vehicles to enter and exit the site in a forward direction.

The matter of zero on-site parking was generally acceptable to transport agencies.

As will be addressed below, the management of construction traffic will be the key traffic related issue for the proposed development. Such that the cumulative implications can be considered and managed it is appropriate that consultation with SCO / TfNSW be undertaken in the preparation of the detailed CPTMP. The preparation of the detailed CPTMP would be following approval prior to Construction Certification.

## 4.3 Parking Assessment

### 4.3.1 Overview of Assessment Methodology

The parking assessment of the proposed student accommodation on the site at 90 – 102 Regent Street, has taken into considered the various parking requirements set out in various policies and planning documents along with demand characteristics for parking obtained from travel surveys conducted at a similar sites.



The consideration of parking requirements for adjacent approved student accommodation has also been considered herein to ensure a consistent approach to parking for student accommodation developments in the locality.

#### 4.3.2 Parking Requirements

The parking requirements for the proposed student accommodation development has been assessed with reference to the following documents:

- State Environmental Planning Policy (SEPP) (Affordable Rental Housing) 2009
- Sydney Local Environmental Plan (SLEP) 2012
- Sydney Development Control Plan (SDCP) 2012
- City of Sydney Boarding Houses Development Control Plan (DCP) 2004

##### **SEPP Affordable Rental Housing 2009**

Clause 29(2) of State Environmental Planning Policy (Affordable Rental Housing) 2009 (SEPP Affordable Housing) provides circumstances in which a development cannot be refused by a consent authority, where the particular requirements of the Clause are achieved. In relation to car parking:

- at least 0.5 parking spaces are provided for each boarding room
- not more than 1 parking space is provided for each person employed.

For the proposed student accommodation development at 90 -102 Regent Street Redfern, the SEPP Affordable housing determines that the proposed development cannot be refused on the grounds of parking if 207 or more on site parking spaces are provided (based on 408 beds and 3 employees).

However, in accordance with Clause 29(4) of the SEPP Affordable Housing, a consent authority can approve a development proposal with a proposed parking provision at a lesser parking rate if it considers it reasonable to do so in the circumstances.

The provision of zero on-site parking for the proposed development is therefore permissible with consent based on a merits assessment of the site specific conditions and the proposed development.

The SEPP Affordable Housing also requires at least one bicycle parking space and one motorcycle parking space for every five boarding rooms.

Therefore, under the SEPP, 76 bicycle and 76 motorcycle spaces are required to satisfy the SEPP Affordable Housing provisions. As assessed below, the proposed provision of 134 secure

on-site bicycle parking spaces and zero motorcycle parking is considered appropriate for the proposed student accommodation.

#### 4.3.3 Sydney Local Environmental Plan 2012 and Sydney Development Control Plan 2012

The Sydney Local Environmental Plan (SLEP) 2012 does not contain car parking rates specifically for student accommodation use. Similarly, the Sydney Development Control Plan (SDCP) 2012 does not specify any bicycle rates for student accommodation use.

The SDCP states that *"in all buildings that provide onsite parking, 1 motorcycle parking space for every 12 car parking spaces is to be provided"*.

On this basis, as no car parking will be provided on-site, no motorcycle parking spaces will be required under the SDCP2012. As such, it is not proposed to provide any motorcycle parking spaces in accordance with the SDCP2012.

#### 4.3.4 City of Sydney Boarding Houses Development Control Plan 2004

The Boarding Houses DCP requires bicycle parking spaces to be provided at a rate of two racks per six bedrooms. Therefore, the Boarding Houses DCP requires 127 bicycle spaces (based on 381 apartments proposed) to be provided.

It is expected that any students requiring a car and/or motorcycle parking space would not reside at this site as tenancy agreements would not permit students to provide vehicles/motorcycles onto the site. This is discussed in further detail below.

### 4.4 Adequacy of Proposed Parking Provision

Student accommodation development do not usually include onsite car parking provisions, as these sites are targeted at a demographic who do not typically own a car.

In addition, student accommodations are typically located within walking distances to nearby tertiary education campuses.

The proposed development site is well-serviced by high frequency public transport services, including local amenities, services and recreational facilities. The future Sydney Metro Waterloo Station will also further add to the site's public transport accessibility.

For these reasons, it is considered acceptable and appropriate that the proposed student accommodation development not provide any onsite car parking.

Notably, there are multiple student accommodation developments in proximity of the subject site as shown in Figure 4.1. As previously indicated, an 18-storey affordable housing development and an 18-storey student accommodation are currently being constructed at 11 Gibbons Street and 80-88 Regent Street respectively.

It is understood that the approved affordable housing development comprises 160 dwellings, 194m<sup>2</sup> retail/commercial use and a 244m<sup>2</sup> office space. Furthermore, the approved student accommodation – which will be operated by Iglu in conjunction with the existing adjacent Iglu site at 66 Regent Street), will provide some 134 student accommodation units. Both of these recently approved developments will provide no off-street car parking.

It is also noted that another 18-storey student accommodation site which TPP was involved in preparing SSDA TIA reports is currently in the process of approval by City of Sydney Council. This particular site is located less than 100m away at 13-23 Gibbons Street, Redfern and is proposed to provide 488 student beds, minor retail tenancy and nil on-site car parking.

Student accommodation developments within a 2km radius of the subject site as shown in Figure 4.1.

Similar to the proposal, the existing student accommodation sites are located within close proximity to tertiary education campuses with good transport links and social centres.

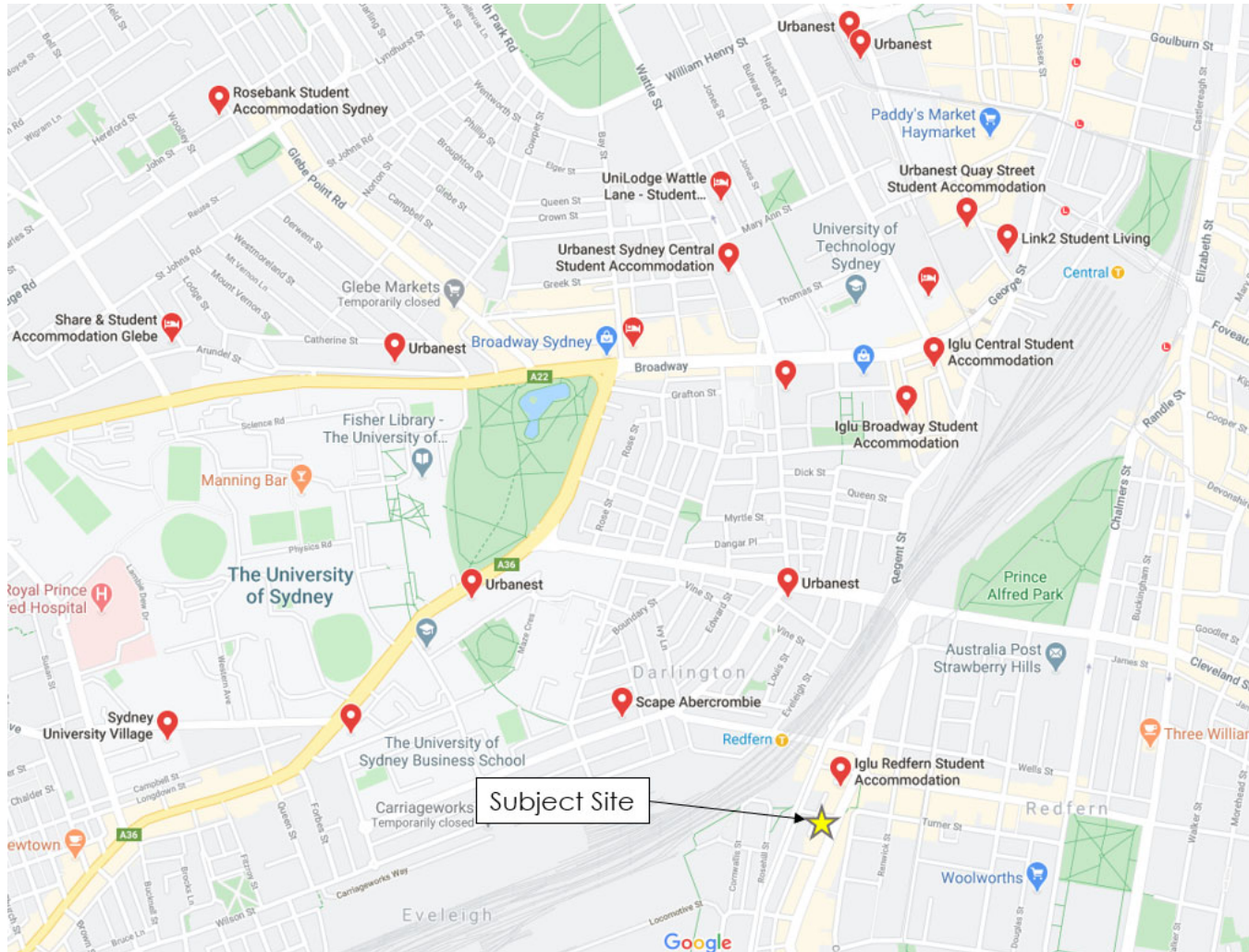
A summary of existing student accommodation sites with nil parking is provided in Table 4.1.

As seen in Table 4.1 there are a number of existing student accommodation developments in and around Sydney that do not provide any onsite car parking spaces.

It should be noted that tenancy agreements have been imposed on residents of these sites to ensure that students do not bring a car to the site, and that breach of this agreement could result in termination of their tenancy agreement. Similar arrangements would be incorporated to the proposed development to ensure minimal parking impacts on the surrounding roads.

Further to this, as part of Cardno's traffic assessment of the approved student accommodation development at 157-163 Cleveland Street, Redfern, a survey questionnaire was conducted to understand the travel patterns of existing students living at Urbanest Quay Street, Haymarket. It is understood that the student accommodation site provided by Urbanest Quay Street, Haymarket also did not have any car parking provisions.

**Figure 4.1: Student Accommodation Sites in the Nearby Area**



Source: Google Maps

**Table 4.1: Student Accommodation with no parking provision**

Provider	Address	No. of Beds	Approx. Walking Distance to the Closest University	No. of Car Parking Spaces	No. of Motorcycle Parking Spaces
Iglu - Chatswood	73 Albert Ave, Chatswood	395	NA (10 minute train trip to Macquarie University)	0	-
Iglu – Redfern	66 Regent St, Redfern	370	900m (University of Sydney, Main Campus)	0	-
Iglu - Broadway	9 Kensington St, Chippendale	271	280m (University of Technology Sydney)	0	-
Iglu - Central	1 Regent St, Chippendale	98	150m (University of Technology Sydney)	0	0
Iglu – Central Park	6 Central Park Ave, Chippendale	770	250m (University of Technology Sydney)	0	-
Urbanest – Cleveland Street	142 Abercrombie St, Redfern	461	885m (University of Sydney, Main Campus)	0	0
Urbanest – Wattle Street	473 Wattle Street, Ultimo	665	300m (University of Technology Sydney)	0	86
Urbanest – Haymarket	83 Quay Street	334	320m (TAFE NSW, Ultimo)	0	-
Urbanest – Darlington	150 City Road	471	200m (Uni of Sydney, Main Campus)	0	-
UniLodge @ UNSW	1 Lorne Ave, Kensington	231	700m (University of NSW)	0	-
Urbanest – Quay Street	83 Quay Street, Haymarket	334	260m (Sydney TAFE)	0	0

The key findings of the surveys from the Cardno report were as follows:

- 76% of residents studied at either University of Sydney or UTS (within walking distance of either development site)
- For trips with a study purpose, **0% of respondents travelled via car**, 23% used public transport, 65% walked, and 1% travelled via motorbike/scooter
- For trips with a work purpose, **0% of the respondents travelled via car**, 23% used public transport, 59% walked, 2% travelled via motorbike/scooter, and 2% took a taxi

- For trips with a social purpose (going out, dinner etc), **0% of the respondents travelled via car as a driver**, 2% travelled as a car passenger, 33% used public transport, 61% walked, 0% travelled via motorbike/scooter or bicycle and 4% took a taxi
- Bicycles are the transport mode of choice for the respondents; 14% said that they owned or planned to own a bicycle during their stay at Urbanest. This compares with 10% for a car and 6% for a motorbike/scooter
- Of those that took public transport, approximately 70% outlined that this was their preference as it was either faster, cheaper or more convenient than the other alternatives
- 14% of respondents said they either owned, or planned to own, a bicycle during their residences at Quay Street (note that this compares consistently with the requirements of the draft City of Sydney DCP for student accommodation that bicycle parking should be provided at rates of 1 per 6 beds, or approximately 17% of demand).
- Of the residents that owned a car, 40% parked in a paid parking space and 60% used a friend or relatives' space
- For 55% of residents, their friends and relatives did not visit by car and of those visitors who arrived by car, 66% visited once per week or less.

Based on above, it should be noted that **0% of the respondents travelled by car** for either study, work or social purposes, respectively with a majority of respondents travelling either by public transport or walking. It is expected that similar travel patterns would arise from the proposed development as it is located within close proximity to public transport services and key tertiary education campuses such as the University of Technology Sydney and University of Sydney.

Further to this, existing on-street car parking is limited and restricted to short-term car parking and so, students would not be able to park on-street for significant periods of time.

Students would be advised of the limited car parking conditions and thus, be discouraged from owning a car or having visitors drive to the site.

In addition to this, having no car and motorcycle parking provision for the proposed student accommodation development would discourage car and motorcycle travel to/from the site, particularly as the site is surrounded by well-established pedestrian and cycle infrastructure, as well as by high frequency public transport services and tertiary educational campuses.

This is considered to align with both the State Government's strategic transport objectives and with Council's key objective to maximise walking and cycling and discourage car use, particularly single occupancy car trips.

Taking the above into consideration, the provision of no car (and no motorcycle parking) for the proposed development is considered satisfactory for student accommodation and is



expected to result in no significant impacts on the existing parking amenities surrounding the road network.

It is noted that designated on street motorcycle parking bays are provided on regent Street directly opposite the site.

Essentially, the development is not expected to operate any differently from other existing student accommodation developments within the area.

Conditions would be in place for all students and form part of their tenancy agreement to mitigate any parking impact on the surrounding road network. This is further discussed below.

As such, the provision of nil car and motorcycle parking are considered acceptable and favourable from a sustainable transport perspective given the site's proximity to transport connections and university and tertiary establishments.

It is however proposed to provide 128 secure bicycle parking spaces to promote more sustainable modes of transport, e.g. walking and cycling.

Notably, this bicycle provision would exceed both SEPP and Council DCP bicycle requirements for the proposed development.

Shower and toilet change facilities are provided for the retail use and staff of the student accommodation and will be available as end of trip facilities for the non-student cyclists accessing the site.

Students will be able to use the showers within their respective units as end of trip facilities.

## 4.5 Tenancy Agreements

As indicated above, conditions would be in place for all students, which would form part of their tenancy agreement. The tenancy agreements would include the following key points:

- no car and motorcycle parking within the proposed student accommodation development are available
- all students would forfeit the right to apply for any resident parking permits, if available
- all students moving into / out of the accommodation would need to coordinate with the management team to ensure appropriate allocation of loading facilities, if required, and to stagger arrival times such that students do not move in at the same time. In addition to this, students would be required to adhere to their designated time slot for all loading and unloading activities.

Any breaches in the above agreement could result in termination of the student's residential agreement. In addition to this, a contact phone number would be provided to students to report any potential breaches of parking or other matters.

## 4.6 Car Sharing Facilities

Car sharing is a flexible, cost effective alternative to car ownership and is a convenient and reliable way for residents to use a car when they need one. GoGet is a car share company operating in Australia, with a number of vehicles positioned within the Redfern Area.

Figure 4.2 shows the location of existing GoGet vehicles and pods within the Redfern area. It should be noted that orange markers indicate an available vehicle whereby grey markers indicate unavailable/used vehicles.

Students would be able to use the GoGet car share vehicle when they need to travel via car, without the cost and hassle of car ownership. These GoGet cars are booked based on the number of hours you need or for a full day via their app, mobile site or online booking system. Information regarding these GoGet car share facilities would be provided as part of their information park once they move in.

Notably, the City of Sydney Council has reported that “a single car share vehicle can replace up to 12 private vehicles that would otherwise compete for local parking”.

Students also receive low membership fees as part of the GoStudent membership, provided they:

- Study at an Australian university, TAFE or private college
- Have a full-time study load (3 or 4 subjects, or equivalent)
- Apply using a student email address (or show a student ID).

The student accommodation provider would be seeking to negotiate a bulk deal with GoGet to ensure students residing at the proposed development have the best options available.





#### 4.7.1 Traffic Generation

As explained in Section 4, the proposed student accommodation development is targeted at students who do not own private vehicles and attend nearby tertiary educational establishments. Additionally the proposed development is to provide nil on-site parking provision.

As such, it is expected that the proposed student accommodation development would not generate any traffic for the following reasons:

- the majority of students would not own a motor vehicle;
- on-site parking is not provided for students (noting that students requiring access to an onsite car space would not consider living at this development);
- the site is located within walking distances to nearby public transport nodes including Redfern Railway Station and bus stops on Gibbons Street and Regent Street as well as the future Waterloo Metro Station which would be operational by 2024;
- the site is located within walking distances to amenities, services and other recreational facilities;
- educational campuses where the students living on the site could be attending are located within walking distances.

Notwithstanding the above, based on Cardno's survey, a summary of the projected student modal splits is provided in Table 4.2.

**Table 4.2: Anticipated Student Modal Splits**

Method of Travel	Per Cent
Car Driver	0%
Car Passenger	0%
Public Transport	30%
Taxi	2%
Motorbike	1%
Bicycle	5%
Walk	62%
<b>Total</b>	<b>100%</b>

Table 4.2 indicates that the proposal is expected to generate zero student car trips. Students are expected to predominately walk and/or use public transport to travel to/from the site.

It is anticipated that the overall traffic generation for the proposal will be negligible and generally limited to a small number of service vehicle movements (e.g. waste collection) and potentially 4-5 students using motorcycles.

In the light of the above, any additional traffic arising from the proposed student accommodation development would have negligible traffic effects.

Based on this and the expected trip generation of the proposal (i.e. zero car trips), the proposal is expected to generate less traffic compared to the existing use of the site.

In any event, given the nature of the proposed development and its proximity to key tertiary educational campuses (e.g. University of Sydney), a Green Travel Plan (GTP) would be suitable for this development to encourage sustainable travel and help to satisfy a zero per cent car driver mode share target to/from the site.

## 4.8 Loading and Service Vehicle Provisions

As noted in Section 2, all loading and waste collection activities will be undertaken on-site within the proposed loading area. The loading area will be accessed provided via William Lane.

A vehicle turntable will be provided to enable forward entry and forward exit movements by service vehicles.

The design of the loading area has been developed to accommodate a SRV as defined by AS2890.2.

The SRV is expected to be the largest vehicle to access to the site and would include waste collection vehicles, delivery vans servicing the small retail space, office and other supplies to the student accommodation.

Waste collection is proposed to be undertaken by a private contractor with an appropriately sized waste collection vehicle (ie SRV). Details of suitable SRV waste collection vehicle are provided in Appendix A.

A vehicle swept path analysis has been undertaken using a SRV demonstrating satisfactory vehicle access to and from the loading area.

The results of the vehicle swept path analysis are presented in Appendix A.

Management of the loading area would be undertaken by the on site staff. Booking of the loading area would be required for students moving in / out of the accommodation or receiving deliveries.

## 4.9 Road and Personal Safety (CPTED Principles)

A number of potential design measures have been considered to maintain road and personal safety in line with the Crime Prevention through Environmental Design (CPTED) principles of surveillance, access control and space and activity management.

The following design measures should be considered as part of the proposed development:

- Ensure appropriate lighting is provided, particularly along Margaret Street and William Lane for students staying at the proposed student accommodation development
- Consistent graffiti removal and damage monitoring on student accommodation properties to be performed especially those which are exposed to public (e.g. signage, outdoor furniture, fences, walls)
- Trim or remove foliage blocking sight lines and ensure there is minimal obstruction to lines of sight near key pedestrian facilities and pedestrian access points,
- Consider the implementation of Closed Circuit Television (CCTV) where practical to maximise surveillance opportunities
- Limit the number of pedestrian access points to the site to reduce opportunities for perpetrators to enter the site
- Ensure regular maintenance is in place including rubbish removal, graffiti removal, repair of light fixtures, trimming of vegetation and/or regular patrols, where feasible, and
- All staff and students should undergo crime awareness training to identify any potential suspicious behaviour and reporting procedures within or near the development.

## 4.10 Taxis and Ride Share Services

The recent introduction of ride share services such as Uber and Ola to the transport mode choice have increased the use of “point to point” travel.

A dedicated Taxi Zone is located in Gibbons Street, north of Marian Street within 150 metres walking distance of the site.

Additionally there is currently a “No Parking” zone on the northern side of Marian Street would could be utilised for drop off / pick up of ride share services.

## 4.11 Green Travel Plan

It is recognised that the simple provision of onsite infrastructure such as bicycle parking needs to be supported with measures that actively encourage the use of sustainable transport modes of travel and discourage private motor vehicle travel.

These measures are typically set out in a site specific Green Travel Plan (GTP).

The key role of a Green Travel Plan (GTP) is to bring about better transport arrangements to manage travel demands, particularly promoting more sustainable modes of travel, modes which have a low environmental impact such as walking, cycling, public transport and better management of car use.

As part of a GTP, a number of policies and procedures would be put in place at a site to encourage transport choice to and within the site, namely public transport, walking and cycling.

A site specific GTP has been prepared as part of this SSDA application.

In the GTP, the following measures are proposed to be implemented as part of the proposed student accommodation development to influence travel behaviours:

- locating the site next to high frequency public transport services and mixed land uses e.g. shops and services, such that walking and/or cycling become the natural choices
- no provision of car parking spaces to reflect the site's proximity to public transport and to influence a modal shift to sustainable transport modes from day one of occupation
- provision of good pedestrian and cycle links within the site, including a ground floor communal through site link with landscaping and outdoor seating areas, to promote social interaction and sustainable transport
- provision of bicycle parking facilities to encourage cycling.

As with all effective GTPs, it is intended that the GTP will be reviewed and updated over time to ensure that the measures implemented are effective and respond to the surrounding transport infrastructure as it changes over time.

## 4.12 Construction Traffic Management

It is proposed that a detailed Construction Pedestrian and Traffic Management Plan (CPTMP) be developed in consultation with the Sydney Coordination Office (SCO) within TfNSW.

It is suggested that the development of a detailed CPTMP be prepared prior to construction activities on the Site (ie. as a condition of SSDA consent to occur prior to the issue of a Construction Certificate).

The preparation of a detailed CPTMP at this stage will ensure that:

- the construction methodology and building contractors are sufficiently refined to enable specific mitigation measures to be developed and implemented; and
- the cumulative traffic implications of the site construction works and surrounding conditions can be accurately addressed. It is acknowledged that construction of other sites in the surrounds are under way or likely to be under way at the same time as the proposed development.

Notwithstanding the above, it is recommended that the following construction traffic management principles be adopted as part of the detailed plan:

- Maximise public safety
- Minimise disruption to pedestrians, cyclists and motorists
- Ensure construction traffic routes to and from the site minimise the use of local roads.
- Ensure buses run on time with no disruption to routes and stops, where possible
- Minimise changes to traffic operation and kerbside access
- Minimise construction traffic generation during network peak periods
- Maintain access to properties and businesses
- Work collaboratively with other stakeholders and other major projects to mitigate traffic and transport impacts.

As part of the SSDA submission, TTPP has prepared a Framework CPTMP.

The purpose of the Framework CPTMP is to identify potential construction implications, outline recommended mitigation measures and establish a framework for the preparation of the detailed CPTMP.

The Framework CPTMP is provided as a separate document.

## 5 Conclusions

This report discusses the traffic and parking implications of the proposed student accommodation at 90-102 Regent Street, Redfern.

The key findings of the report are:

- The SSDA seeks approval for the demolition of existing buildings on-site and the construction of an 18-storey student accommodation development comprising of 408 beds in 381 apartments and associated retail and ancillary facilities on the ground floor, including 134 bicycle parking spaces.
- No on site car parking or motorcycle parking is proposed by the development.
- The zero provision of car parking is:
  - compliant with the SLEP which does not set minimum on site parking requirements
  - is permissible under the SEPP based on a merits assessment
  - consistent with the transport objective outlined in strategic planning documents.
- The site location and on site provisions will afford students residing in the development with realistic and attractive mode choices for public and active transport. This would include:
  - Secure on site bicycle parking spaces and end of trip facilities
  - Good access to existing bicycle and pedestrian networks
  - Good access to a range of public transport services
  - Good access to car share facilities (ie. Go-Get)
  - A range of on site facilities which removes the need to travel to / from the site (ie. gym, laundry, kitchen / dining, recreation and lounge areas)
- The proposed development is anticipated to generate little to no net increase in site generated traffic due to the zero on-site parking provision. As such, the proposal is not expected to generate any adverse traffic impacts on the surrounding road network, nor any operational or safety issues on surrounding key intersections.
- It is proposed that a Green Travel Plan (GTP) would be implemented to ensure mode split targets are achieved for the development. A GTP document has been prepared to accompany the SSDA submission, noting that this GTP would have to be updated post-occupation of the site.
- A detailed *Construction Pedestrian Traffic Management Plan* (CPTMP) would be prepared in consultation with the Sydney Coordination Office within TfNSW prior to any construction works occurring on the site (ie. prior to issue of Construction Certification). The CPTMP would be prepared once building contractors have been engaged and construction methodology refined.

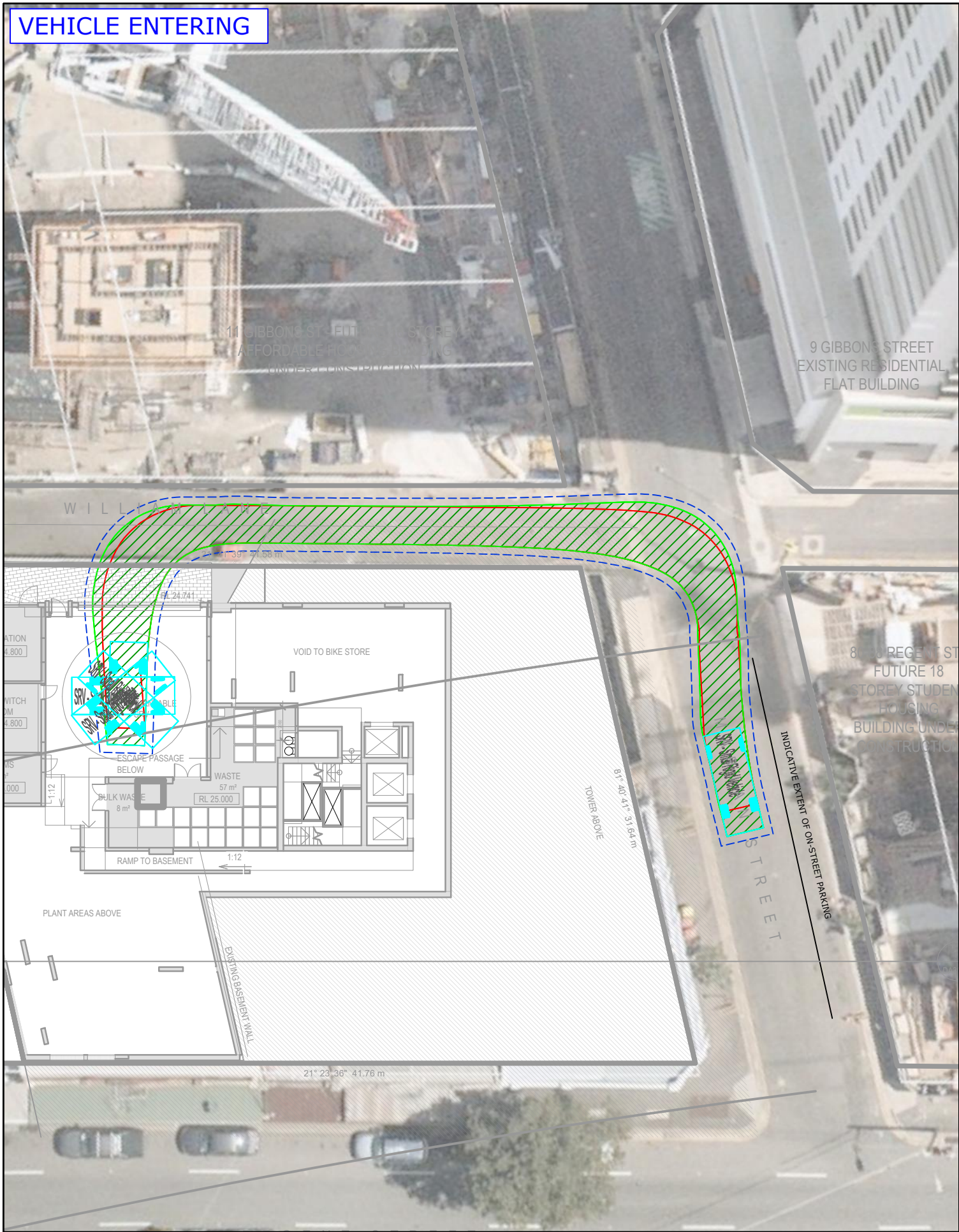
To conclude, the traffic and parking implications associated with the proposed development are not expected to result in any discernible adverse impact on the surrounding road network, with management measures in place to ensure minimal traffic and parking implications for both construction and operation of the proposed student accommodation on the site.



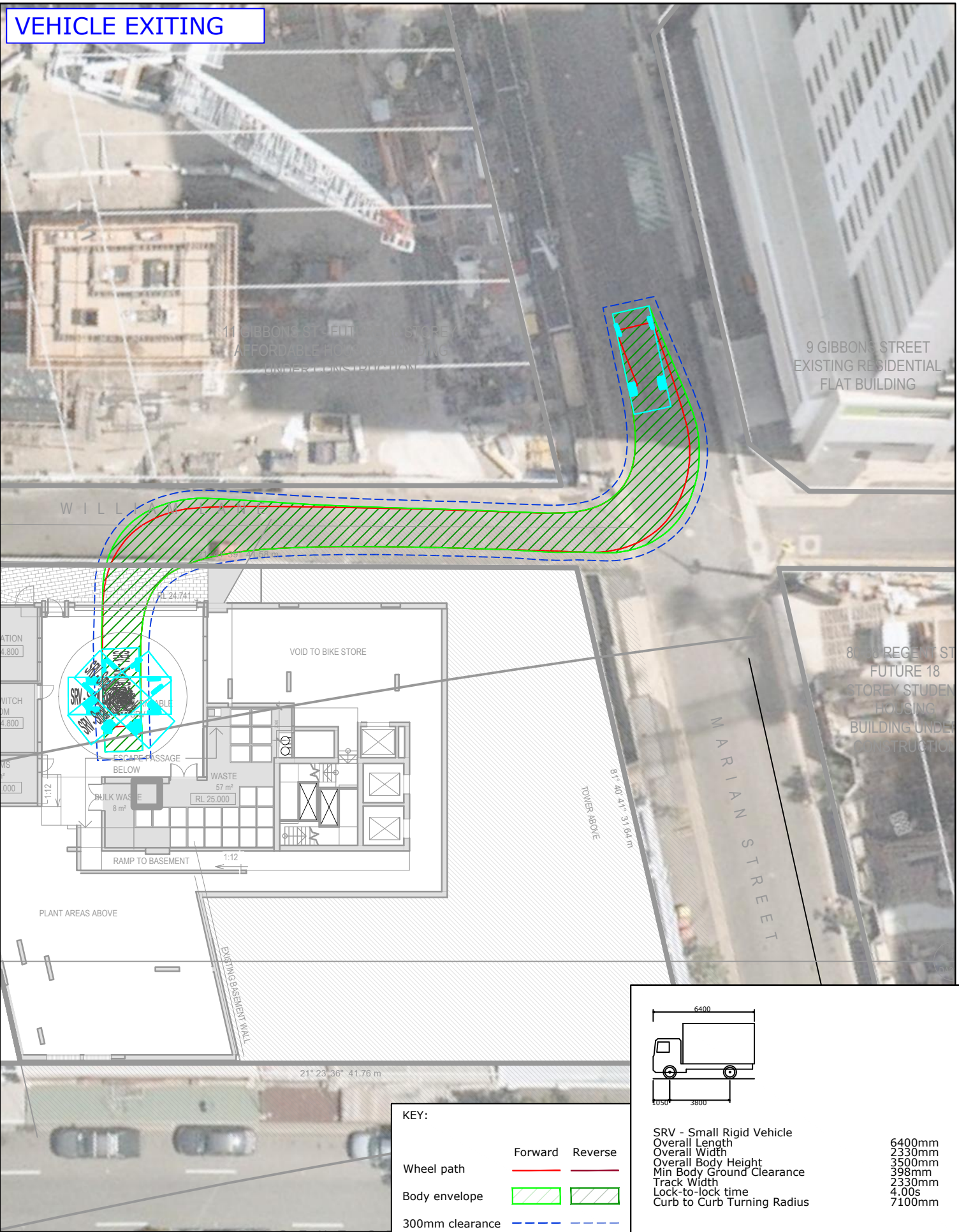
## Appendix A

### Loading Area Vehicle Swept Paths

VEHICLE ENTERING



VEHICLE EXITING



SRV - Small Rigid Vehicle  
Overall Length 6400mm  
Overall Width 2330mm  
Overall Body Height 3500mm  
Min Body Ground Clearance 398mm  
Track Width 2330mm  
Lock-to-lock time 4.00s  
Curb to Curb Turning Radius 7100mm

KEY:		
Wheel path	Forward	Reverse
Body envelope		
300mm clearance		

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	JR	JR	30/09/20



PROJECT

90-102 REGENT STREET, REDFERN

TITLE

SWEPT PATH ANALYSIS  
AS2890.2 6.4m SMALL RIGID VEHICLE

DWG No. 19139CAD007	
FIGURE 1	
DATE STAMP 30 SEPTEMBER 2020	
PROJECT No. 19139	SCALE 1:300 @A3
REV. A	

Filename: 19139CAD007 - 200909-SWEPT PATH.dwg Date: 30 September 2020 By: Karl Manisdrado



Introducing the  
**WASTE WISE MINI**



## REAR LOADER

Waste Wise Environmental introduced the first MINI rear loader vehicle into Australia in September 2011.

The success of the MINI rear loader has been well documented over the first 12 months of service. The ability to manoeuvre in confined areas within basement car parks, where bin rooms are located, and laneways where other vehicles find difficulty in reversing is unique, but achievable for this compact unit.

With an overall height of just 2.08 metres and length of 6.40 metres, this vehicle can enter most car parks, going down three (3) basement levels or climbing up eight (8) car park levels to empty MGB 240 litre & MGB 660 litre bins within its own height capacity.

MGB 1100 litre bins will be lifted higher than the vehicle and generally find a spot within the complex to do so.

The MINI rear loader is valuable to all: architects, developers, owners corporations (space saving and cost saving) and councils (no bins at kerbside affecting the streetscape).



The Waste Wise Environmental fleet of MINI'S has successfully demonstrated its ability as the most valuable & versatile MINI rear loader on the road today. Not only in confined areas, but also under standard rear loader conditions at street level.



Technical drawing showing the side profile of a truck chassis with dimensions in millimeters (mm). The drawing includes the cab, chassis, and a crane mechanism at the rear.

Dimensions (mm):

- Overall width: 2,080
- Cab width: 500
- Cab height: 187
- Chassis width: 200
- Chassis height: 1,600W x 1,085H
- Chassis length: 3,200L
- Chassis height (lower section): 100
- Chassis height (lower section): 635
- Chassis height (lower section): 305
- Chassis height (lower section): 135
- Chassis height (lower section): 1,180
- Chassis height (lower section): 1,920
- Chassis height (lower section): 700
- Chassis height (lower section): 1,965
- Chassis height (lower section): 3,400
- Chassis height (lower section): 980

Technical drawing of the truck chassis showing dimensions for the body and lifting mechanism. The drawing includes a side view of the truck with a crane and a top-down view of the lifting mechanism. Dimensions are provided in millimeters (mm).

**Dimensions:**

- Overall length: 3,250
- Overall height: 2,076
- Height of the lifting mechanism: 1,882
- Height of the body: 930
- Height of the chassis: 205
- Height of the lifting mechanism (lower part): 305
- Height of the chassis (lower part): 700
- Height of the chassis (lower part): 2,035
- Height of the chassis (lower part): 2,436
- Height of the chassis (lower part): 31

**WASTEWISE**  
environmental



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