

Myrtle Street Creative Build-To-Rent

3 Myrtle Street & 3-5 Carrington Road, Marrickville
Transport Impact Assessment



Prepared by: GTA Consultants (NSW) Pty Ltd for CityState Property
on 11/09/2020
Reference: N165300
Issue #: B

Myrtle Street Creative Build-To-Rent

3 Myrtle Street & 3-5 Carrington Road, Marrickville Transport Impact Assessment

Client: CityState Property

on 11/09/2020

Reference: N165300

Issue #: B

Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A	14/05/2020	Final	Ashish Modessa	Karen McNatty Brett Maynard	Brett Maynard	Brett Maynard
B	11/09/2020	Final – Updated Scheme	Ashish Modessa	Brett Maynard	Brett Maynard	

Cover photo source: Myrtle Street Creative Build-to-Rent – Urban Design Justification Report prepared by RobertsDay, dated April 2020

© GTA Consultants (NSW) Pty Ltd [ABN 31 131 369 376] 2020
The information contained in this document is confidential and intended solely for the use of the client for the purpose for which it has been prepared and no representation is made or is to be implied as being made to any third party. Use or copying of this document in whole or in part without the written permission of GTA Consultants constitutes an infringement of copyright. The intellectual property contained in this document remains the property of GTA Consultants.

CONTENTS

1.	Introduction	1
1.1.	Background	2
1.2.	Development Proposal	2
1.3.	Purpose of this Report	3
1.4.	References	3
2.	Strategic context	4
2.1.	Greater Sydney Region Plan 2018	5
2.2.	Eastern City District Plan	6
2.3.	Sydenham to Bankstown Urban Renewal Corridor Strategy	7
3.	Site and transport context	9
3.1.	Location	10
3.2.	Road Network	10
3.3.	Public Transport	11
3.4.	Pedestrian and Cyclist Access	13
3.5.	Cycling Facilities	14
3.6.	Local Car Sharing Initiatives	16
4.	Parking Assessment	17
4.1.	Car Parking	18
4.2.	Bicycle and Motorcycle Parking	19
4.3.	Loading and Services	19
4.4.	Design Review	19
5.	Transport Assessment	21
5.1.	Traffic Generation	22
5.2.	Distribution and Assignment	22
5.3.	Traffic Impact	23
5.4.	Improvements and Recommendations	23
6.	Conclusion	25

1. INTRODUCTION

01

1.1. Background

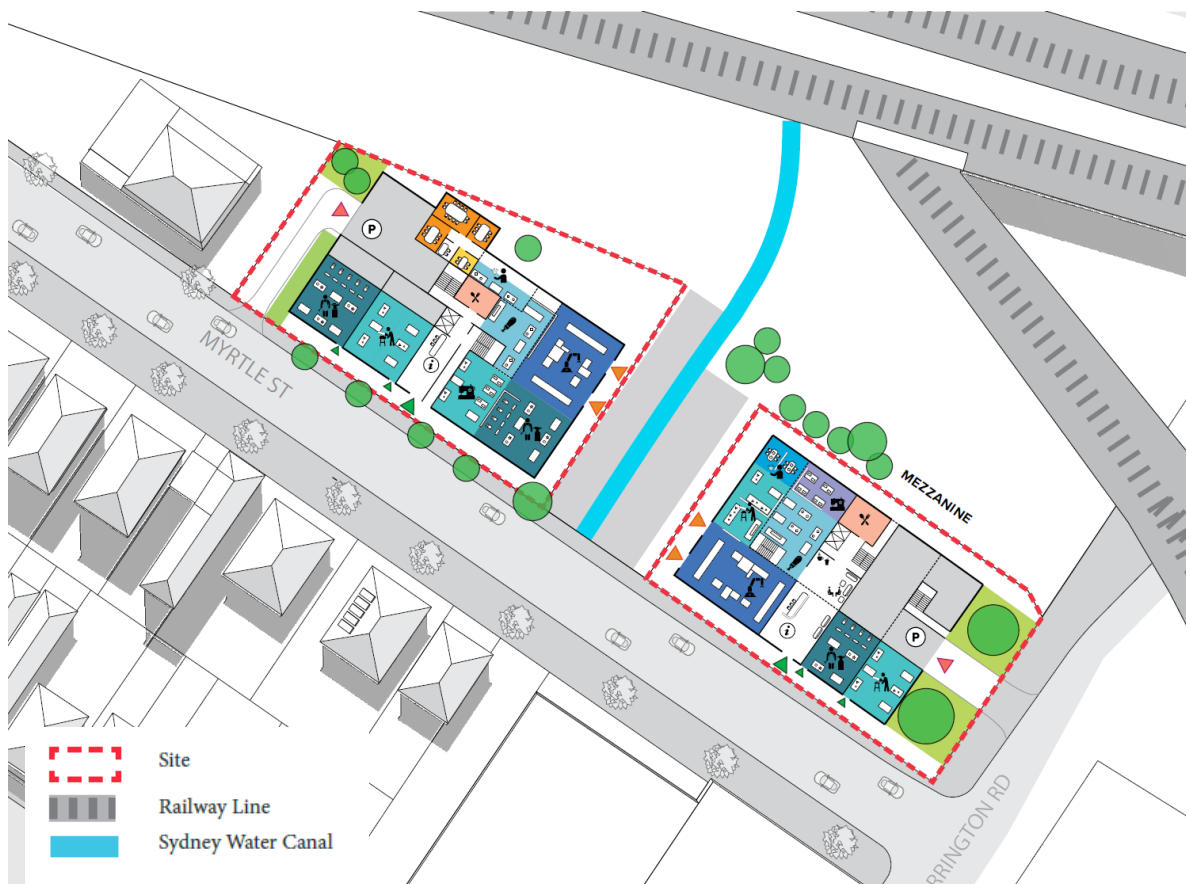
A planning proposal is to be relodged with Inner West Council for a mixed-use development on adjacent sites located at 3 Myrtle Street and 3-5 Carrington Road, Marrickville. CityState Property engaged GTA Consultants to assess the transport, parking and traffic implications associated with the planning proposal.

1.2. Development Proposal

The planning proposal seeks to amend the planning controls to allow residential as an additional permitted use on land currently zoned IN2 Light Industrial and increase the maximum floor space ratio and height controls that currently apply to the site.

The proposal incorporates two nine storey buildings with flexible warehouse/ industrial space across the first three levels including mezzanine space, and build-to-rent units suitable for live/ work arrangements on the upper levels, as summarised in Table 1.1. The indicative site layout is shown in Figure 1.1 and includes two separate driveways from Myrtle Street and Carrington Road that will service basement car parking for each building. The proposal also includes new open space along the stormwater canal linking Myrtle Street with the railway corridor and opening up the opportunity to connect with any future shared path along the railway corridor. This will greatly improve connectivity and pedestrian amenity between the site, surrounds, Marrickville railway station and town centre should the shared path along the railway corridor be constructed as strategically planned.

Figure 1.1: Indicative site layout



Source: Myrtle Street Creative Build-to-Rent – Urban Design Justification Report prepared by RobertsDay, dated April 2020

Table 1.1: Indicative schedule

Use	Size
Build-to-rent units	175-225 units
Flexible Warehouse/ Industrial	5,565 sqm GFA ^[1]

[1] GFA is gross floor area

The flexible warehouse/ industrial space is proposed to support the residential units. The proposed type of tenants are intended to include industries such as, architecture and design, printing and publishing, art galleries, boutique food and beverage production, music studios, textiles, fashion and jeweller and carpentry.

1.3. Purpose of this Report

This report sets out an assessment of the anticipated transport implications of the proposal, including consideration of the following:

- Existing and planned transport conditions and services surrounding the site
- Suitable parking and service vehicle requirements
- Pedestrian and bicycle considerations and requirements
- Traffic generating characteristics of the proposal
- Suitability of the future access arrangements for the site
- Transport impact of the proposal on the surrounding road network.

1.4. References

In preparing this report, reference has been drawn from a number of background sources, including:

- An inspection of the site and its surrounds
- Marrickville local environmental plan (lep) 2011
- Marrickville development control plan (dcp) 2011
- The NSW government's future transport 2056 strategy 2018
- Greater Sydney commission's our greater Sydney 2056 eastern city district plan 2018
- The NSW government's Sydenham to Bankstown urban renewal corridor strategy including Marrickville station precinct plan
- Australian standard/ new zealand standard, parking facilities, part 1: off-street car parking as/nzs 2890.1:2004
- Australian standard, parking facilities, part 2: off-street commercial vehicle facilities as 2890.2:2002
- Australian standard / new zealand standard, parking facilities, part 6: off-street parking for people with disabilities as/nzs 2890.6:2009
- Myrtle street creative build-to-rent – urban design justification report prepared by Roberts Day dated april 2020
- Other documents and data as referenced in this report.

2. STRATEGIC CONTEXT

02

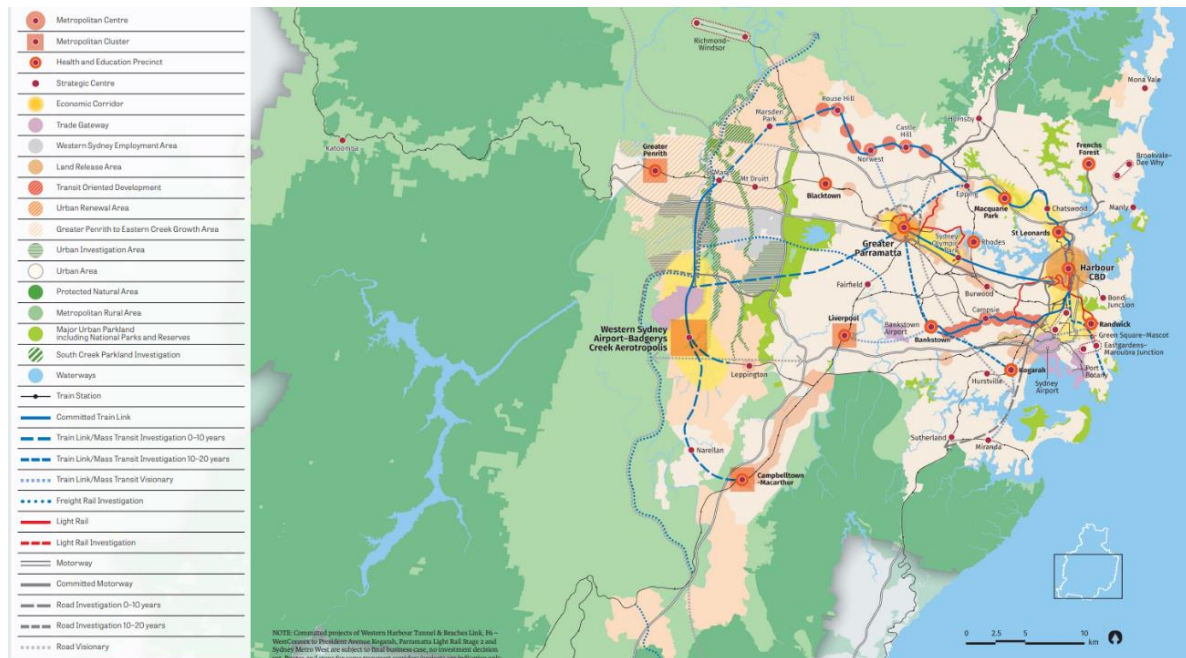
2.1. Greater Sydney Region Plan 2018

The Greater Sydney Commission (GSC) is an independent organisation that leads metropolitan planning for Greater Sydney. It has prepared the Greater Sydney Region Plan which outlines how Greater Sydney will manage growth and guide infrastructure delivery. The Greater Sydney Region Plan has been prepared in conjunction with the NSW Government’s Future Transport 2056 Strategy and informs Infrastructure NSW’s State Infrastructure Strategy.

The GSC’s vision is to create three connected cities; a Western Parkland City west of the M7, a Central River City with Greater Parramatta at its heart and an Eastern Harbour City. By integrating land use, transport links and infrastructure across the three cities, more people will have access within 30 minutes to job, school, hospitals and services.

The Greater Sydney Region Plan is a 20-year plan with a 40-year vision and has four key focuses; infrastructure and collaboration, liveability, productivity and sustainability. The Greater Sydney Structure Plan 2056 is shown indicatively in Figure 2.1.

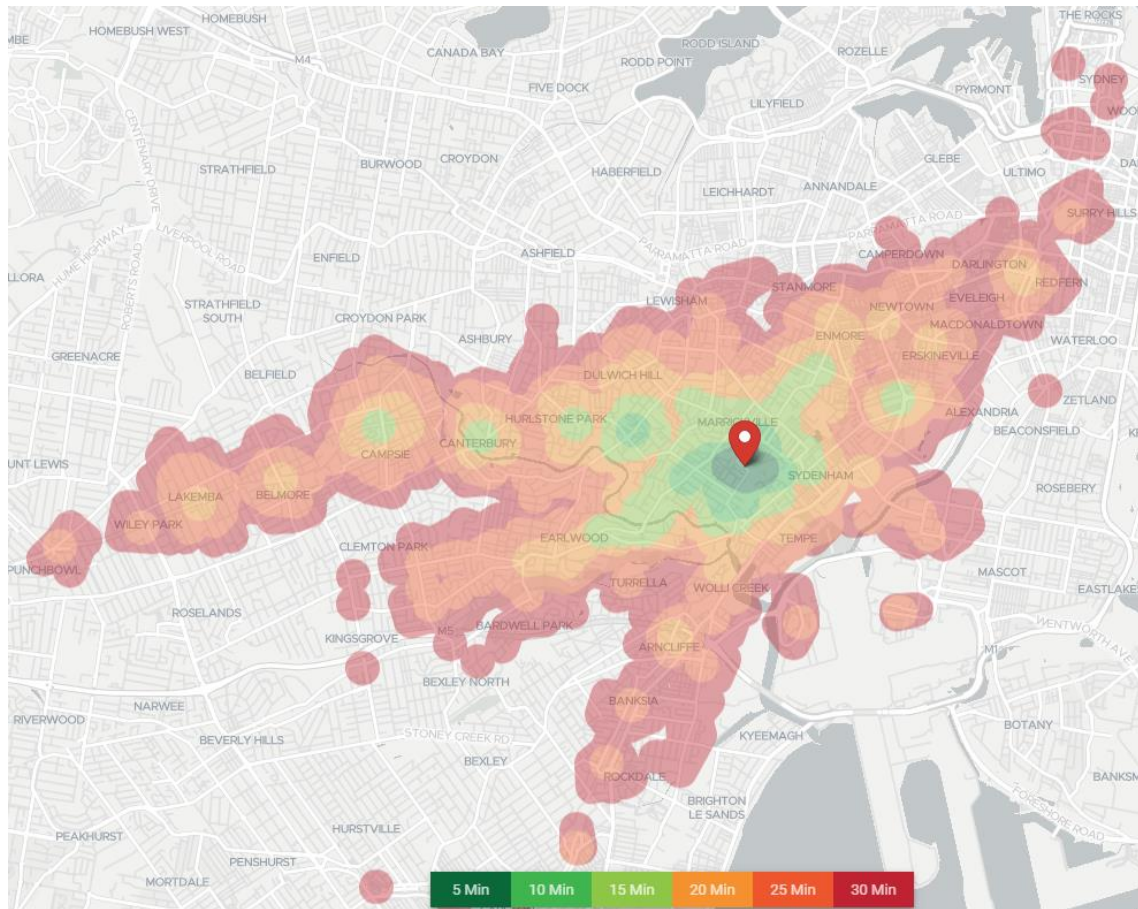
Figure 2.1: Greater Sydney Structure Plan 2056 – The Three Cities



Source: Greater Sydney Commission, accessed 13 February 2019

The location of the site, in the context of the 30-minute city concept, is shown in Figure 2.2. This is based on public transport being the primary mode of travel.

Figure 2.2: Travel distance by public transport



Source: <https://app.targomo.com/>, accessed 12 February 2019

2.2. Eastern City District Plan

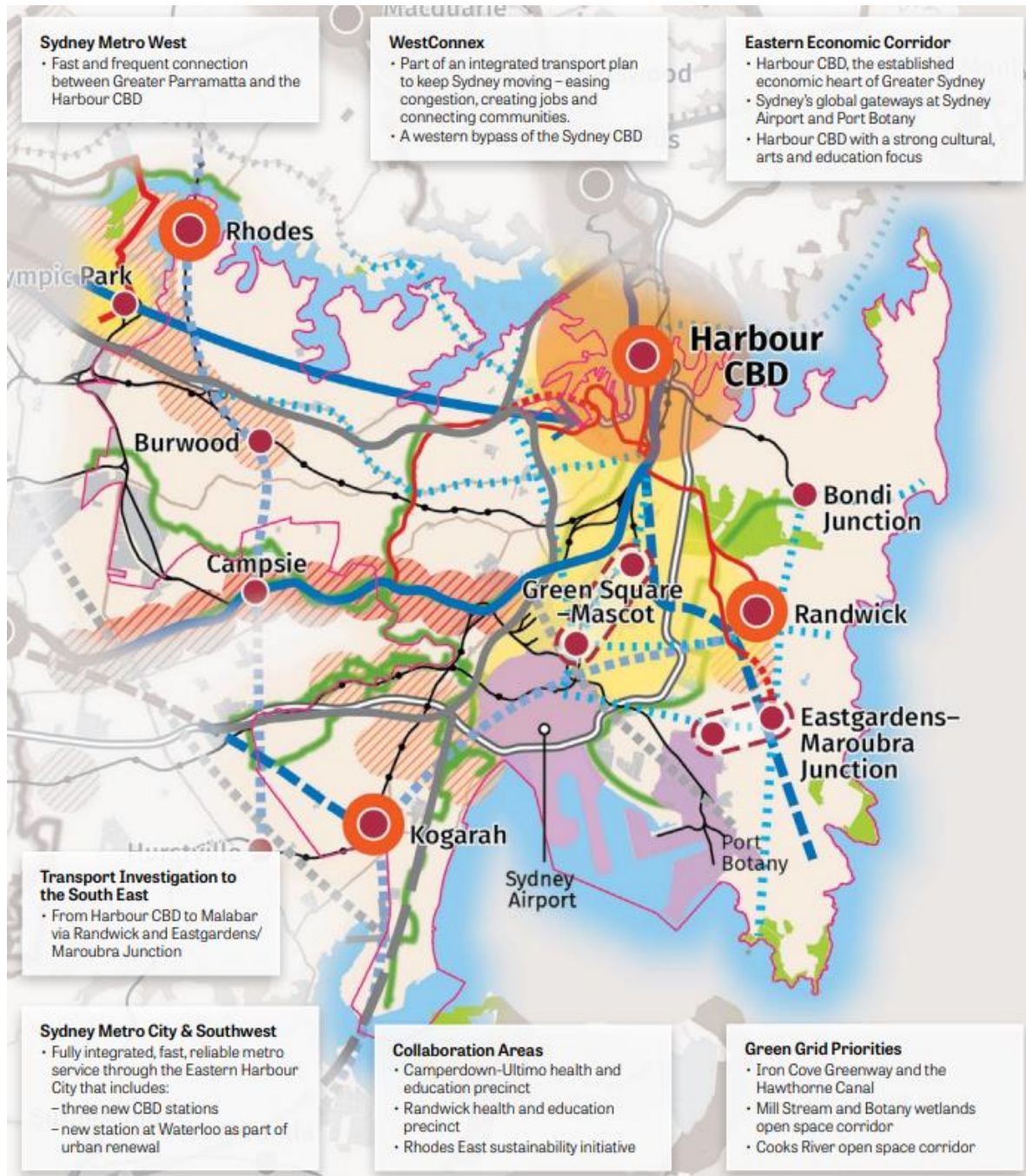
The vision for Greater Sydney as a metropolis of three cities – the Western Parkland City, the Central River City and the Eastern Harbour City and a 30 minute city – will see the Eastern City District become more innovative and globally competitive, carving out a greater portion of knowledge-intensive jobs from the Asia Pacific Region. The vision will improve the District’s lifestyle and environmental assets.

The Eastern City District is at the centre of the Eastern Harbour City with the Harbour CBD, as its metropolitan centre, Australia’s global gateway and financial capital. The vision will improve the District’s lifestyle and environmental assets.

The Plan puts emphasis on liveability and designing, building and managing to encourage people of all ages and abilities to walk or cycle for leisure, transport or exercise. The Plan promotes a place-based and collaborative approach to maintain and enhance the liveability of the Eastern District by implementing services and social infrastructure, housing supply, choice and affordability with access to jobs, services and public transport, and creating and renewing places and local centres.

The proposal enhances the 30-minute city by increasing density within the Marrickville centre, access to jobs, housing diversity, ground floor commercial opportunities, improved access to public transport and public open space.

Figure 2.3: The Eastern District



Source: Greater Sydney Commission, accessed 13 February 2019

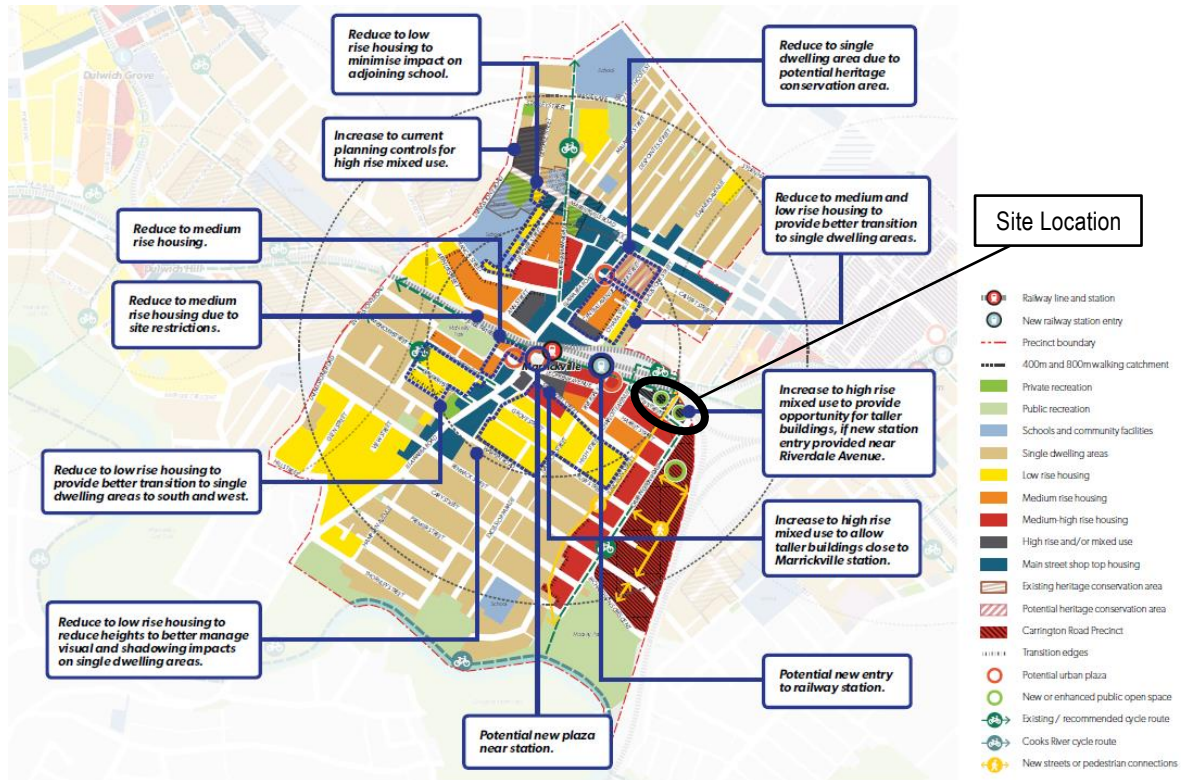
2.3. Sydenham to Bankstown Urban Renewal Corridor Strategy

The Sydenham to Bankstown Urban Renewal Corridor Strategy plans for 35,400 new homes and 8,700 jobs over the next 20 years, as well as infrastructure to support the future community's needs. The Strategy builds on the Sydney Metro City and Southwest project and provides a coordinated approach to infrastructure delivery and development across the corridor.

In June 2017, Marrickville was announced as a Planned Precinct by the NSW Government as part of a housing affordability package. Planning for the Precinct is coordinated by state and local governments, to help ensure infrastructure such as schools, parks, community facilities, public transport and road upgrades is delivered to support community needs.

It is understood that master planning for this precinct will result in rezoning of the precinct, as shown in Figure 2.4.

Figure 2.4: Marrickville Station Precinct



Source: Department of Planning and Environment, June 2017

The plan identifies the subject site for an increase to high rise mixed use in order to provide opportunity for more residential development near the railway station. It also acknowledges the possibility for a new station entrance near Riverdale Avenue that would greatly improve station access from the site (reduce distance to 200 metres) and its surrounds.

3. SITE AND TRANSPORT CONTEXT

03

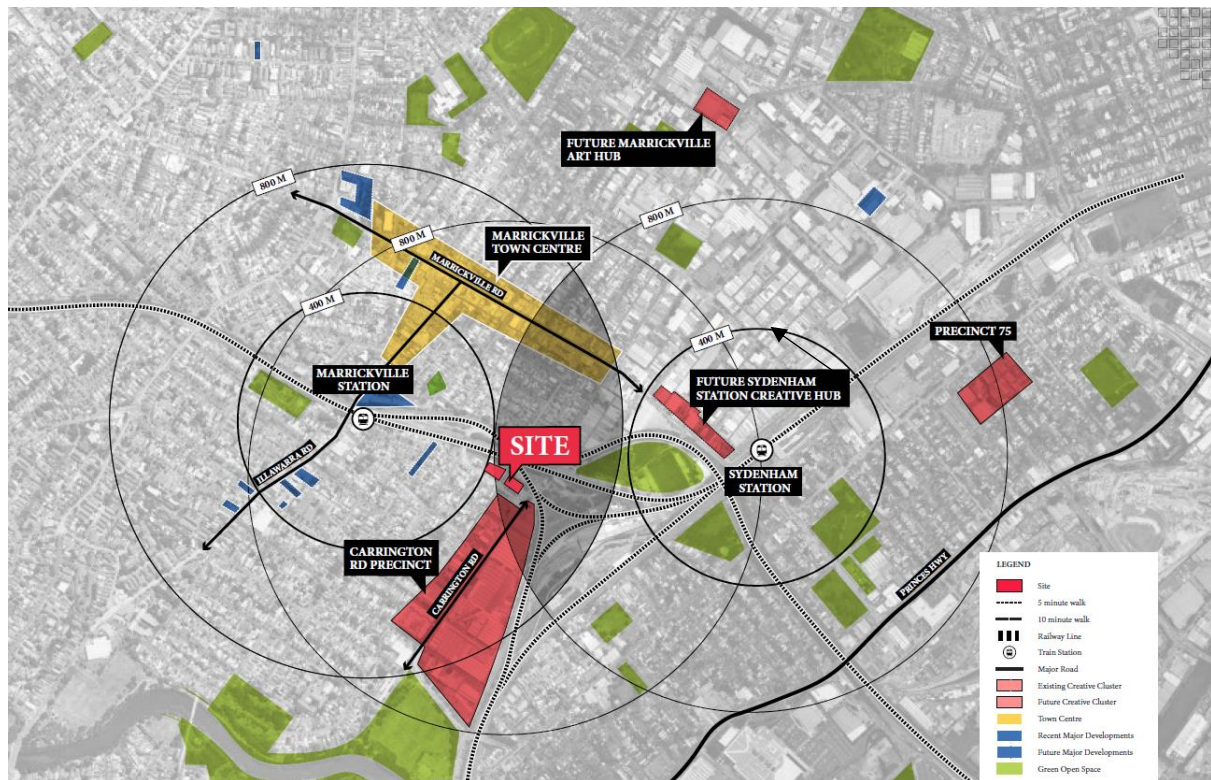
3.1. Location

3 Myrtle Street and 3-5 Carrington Road, Marrickville is within the Inner West Council local government area, seven kilometres southwest of Sydney CBD. The site of 3,768 square metres is split by a stormwater canal and has a frontage of 125 metres to Myrtle Street to the south and 30 metres to Carrington Road to the east. The site is currently zoned as IN2 Light Industrial and occupied by such uses with total approximately 2,000 square metre GFA. The site currently provides five separate access driveways, with three on Myrtle Street and two on Carrington Road.

The surrounding properties include industrial and residential uses. The location of the site and its surrounding environs is shown in Figure 3.1.

The site is a five-minute walk from Marrickville railway station and is strategically located on both existing and emerging transport corridors. The proposed Sydney Metro City and Southwest will provide frequent services between Bankstown and Sydney CBD and extending to Sydney's North West via Chatswood, Epping and Castle Hill. The proposed conversion from heavy rail to metro is a major contributor towards the extensive redevelopment planned along the Bankstown to Sydenham corridor including Marrickville.

Figure 3.1: Site location and surrounds



Base image source: Myrtle Street Creative Build-to-Rent – Urban Design Justification Report prepared by Roberts Day, dated April 2020

3.2. Road Network

Myrtle Street and Carrington Road currently both function as collector roads with generally one lane in each direction. They form part of a north-south route through Marrickville linking Marrickville Road to the north and Princes Highway to the southeast. The two roads intersect to the east of the site via priority control with give way applying to Carrington Road. The posted speed limit along both roads is 50 kilometres per hour.

A 15-minute sample traffic movement count was completed at the Myrtle Street/ Carrington Road intersection during the site visit on Thursday 21 February 2019 during the PM peak period (starting at 5pm). The count found there were 285 vehicles travelling along the north-south route, including 205 vehicles southbound and 80 vehicles northbound. This approximately equates to 1,140 vehicles per hour (or 820 vehicles southbound and 320 vehicles northbound).

There is unrestricted kerbside parking is provided on one side along both roads, including five spaces along the site frontages. Observations during the PM peak period suggest there is a high demand for the parking which could be related to the surrounding employment uses or commuter parking given the areas proximity to Marrickville railway station.

Myrtle Street and Carrington Road are shown in Figure 3.2 to Figure 3.5.

Figure 3.2: Myrtle Street (looking east)



Figure 3.3: Myrtle Street (looking west)



Figure 3.4: Carrington Road (looking south towards Myrtle Street)



Figure 3.5: Carrington Road (north of Myrtle Street)



3.3. Public Transport

The site is serviced by Marrickville railway station and bus stops located approximately 500 and 600 metres from the site respectively, linked via a pathway along the railway boundary.

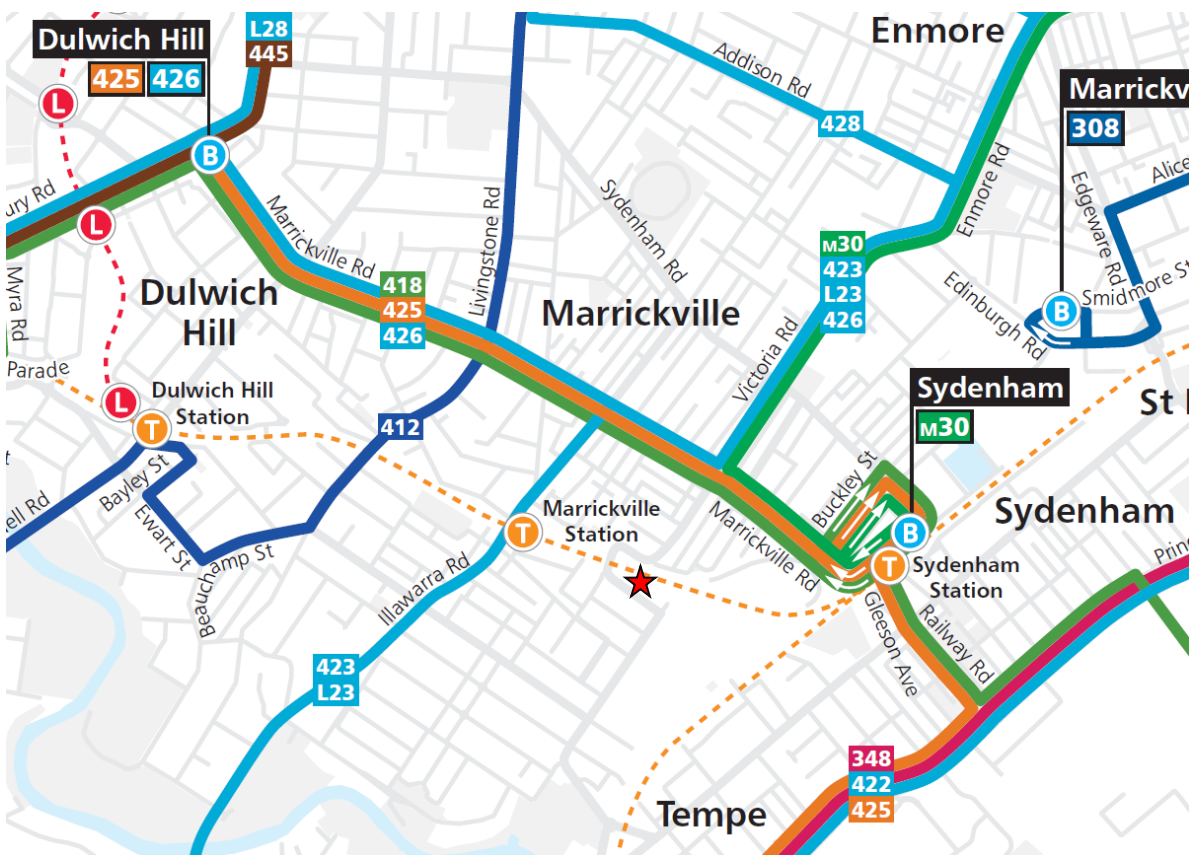
Marrickville station is serviced by the Bankstown railway line and has trains to the city every 10 minutes during peak periods and 15 minutes during off-peak periods. Bus stops located adjacent to Marrickville station provide services to the city every 10 minutes during peak periods and 20 minutes during off-peak periods. Public transport available near the site is summarised in Table 3.1 and shown indicatively in Figure 3.6.

SITE AND TRANSPORT CONTEXT

Table 3.1: Public transport provision

Service	Route number	Route description	Location of stop	Distance to nearest stop	Frequency on/ off-peak
Bus	423	Kingsgrove to City Martin Place	Illawarra Rd at Warburton St	600m	10 mins peak/ 15 mins off peak
	L23	City Martin Place to Kingsgrove	Illawarra Rd at Warburton St		15 mins peak
Train	T3	Bankstown Line	Marrickville station	500m	4-10 mins peak/ 10-15 mins off peak

Figure 3.6: Surrounding public transport network

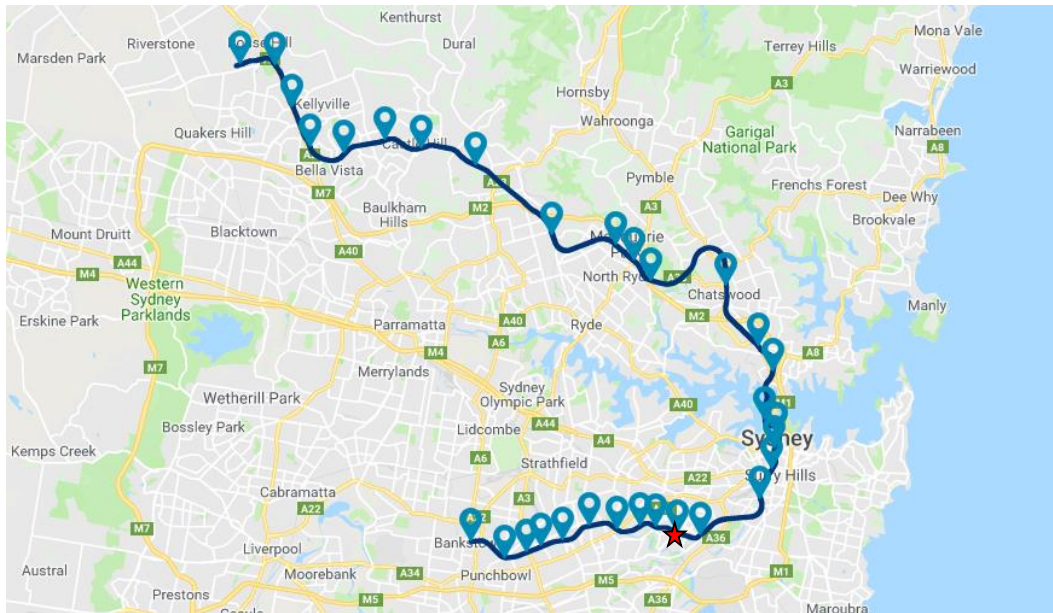


Base image source: TransportNSW.Info accessed 7 May 2020

By 2024, Sydney Metro will incorporate the Bankstown railway line into a 66-kilometre Sydney Metro network between Rouse Hill in Sydney's northwest and Bankstown in the southwest, via the Sydney CBD. The Metro trains will increase frequency to the Sydney CBD during peak periods with a train every four minutes.

Stage 1 of Sydney Metro extends from Cudgegong Road, Schofields to Chatswood and has been operational since May 2019. Stage 2 of Sydney Metro will extend south from Chatswood, under Sydney Harbour, via new underground station precincts within the CBD and continue along the existing line to Bankstown. An overview of the future Sydney Metro is shown in Figure 3.7.

Figure 3.7: Sydney Metro route alignment



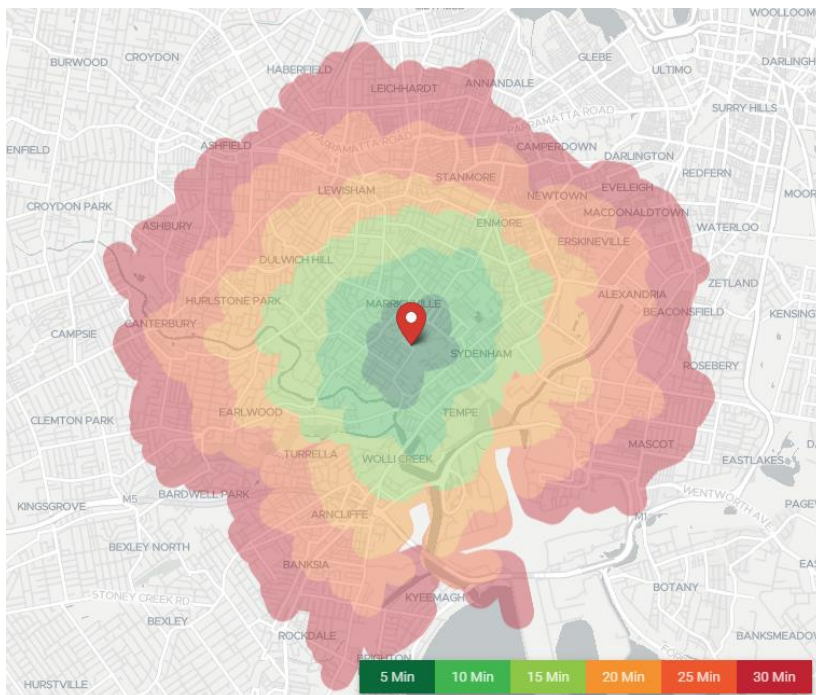
Source: Sydney Metro

3.4. Pedestrian and Cyclist Access

3.4.1. Pedestrian Amenity

Footpaths are provided on both sides of the majority of surrounding roads. The existing walking catchment from the site is shown in Figure 3.8 and illustrates existing connectivity to promote walking as a mode a travel to/ from the local area.

Figure 3.8: Existing Walking Catchment Map



Source: <https://app.targomo.com/>, accessed 13 February 2019

A shared path is provided along the frontage of the site (Figure 3.9), which connects to an on-road cycle path to the west. The pedestrian footpath terminates at the western boundary of the site and does not provide any pedestrian connection to the shared path on Victoria Road or connection through to the railway station. A kerb extension on Myrtle Street near Carrington Road (Figure 3.10) provides a crossing location across Myrtle Street.

Figure 3.9: Shared Park along Myrtle Street frontage



Figure 3.10: Pedestrian Crossing point (Myrtle Street at Carrington Road)



3.5. Cycling Facilities

Figure 3.14 highlights the network of cycling routes within the local and regional area. There is a separated cycleway along Myrtle Street that connects with several other cycle ways through the local and regional areas (Figure 3.11). A mid-block refuge island exists along Myrtle Street (Figure 3.12) to provide a crossing point for cyclists only between the separated cycleway (Figure 3.13). The bicycle network and potential shared path along the rail corridor would encourage cycling as a mode of transport in the local and regional area therefore reducing the reliance on private car-based travel, especially single occupant trips or short distance travel.

Figure 3.11: Dedicated Cycle Way on Myrtle Street

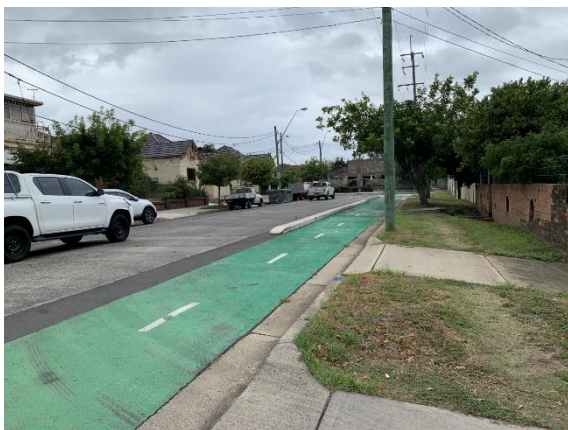


Figure 3.12: Mid-block cycle refuge on Myrtle Street

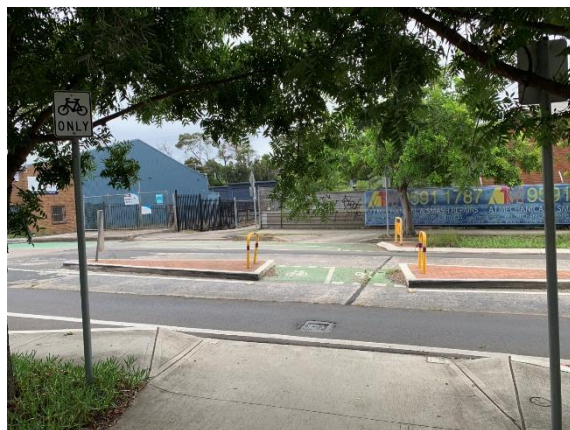
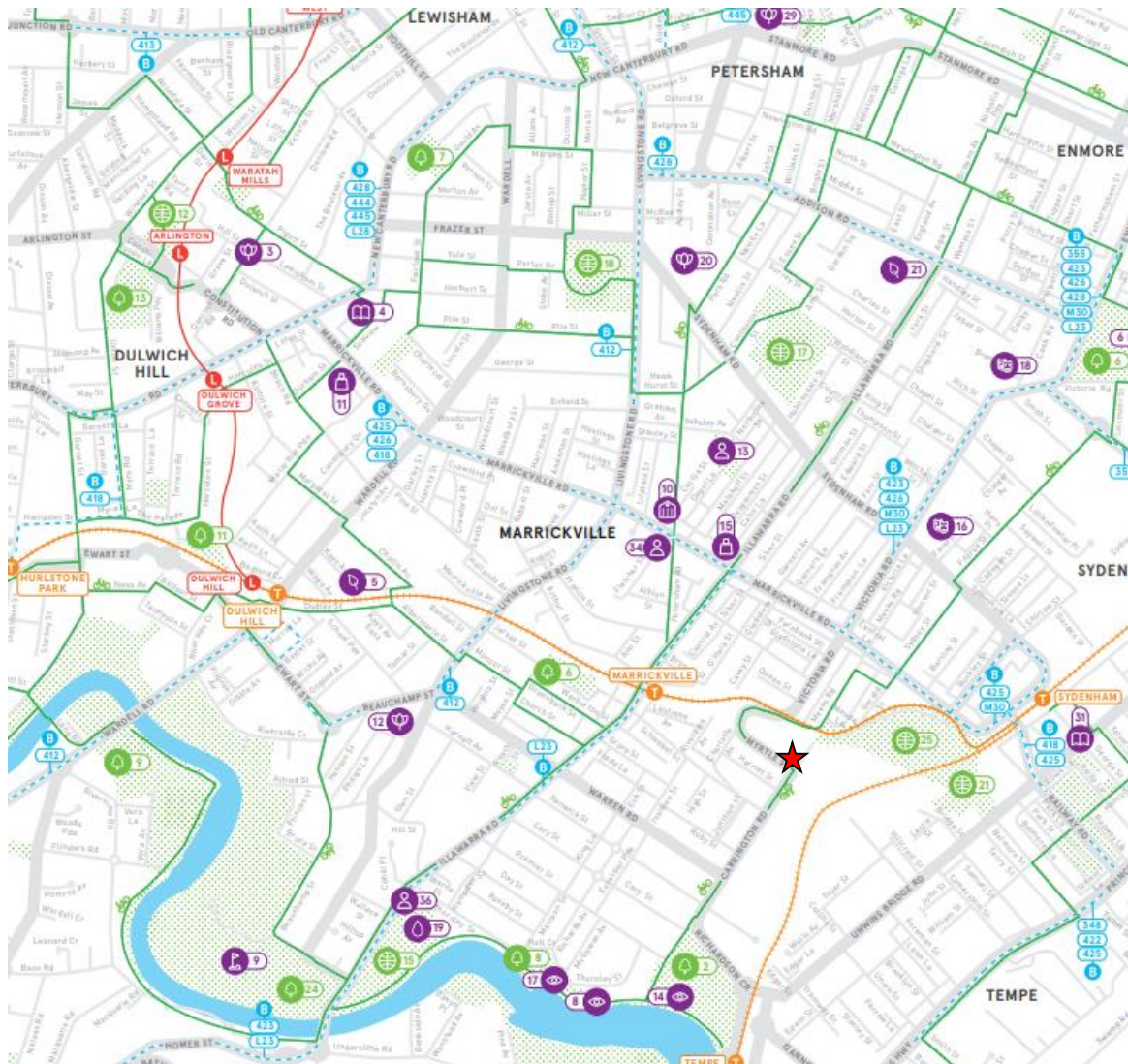


Figure 3.13: Dedicated Cycle Way on Carrington Road



Figure 3.14: Bicycle routes near site (in green)



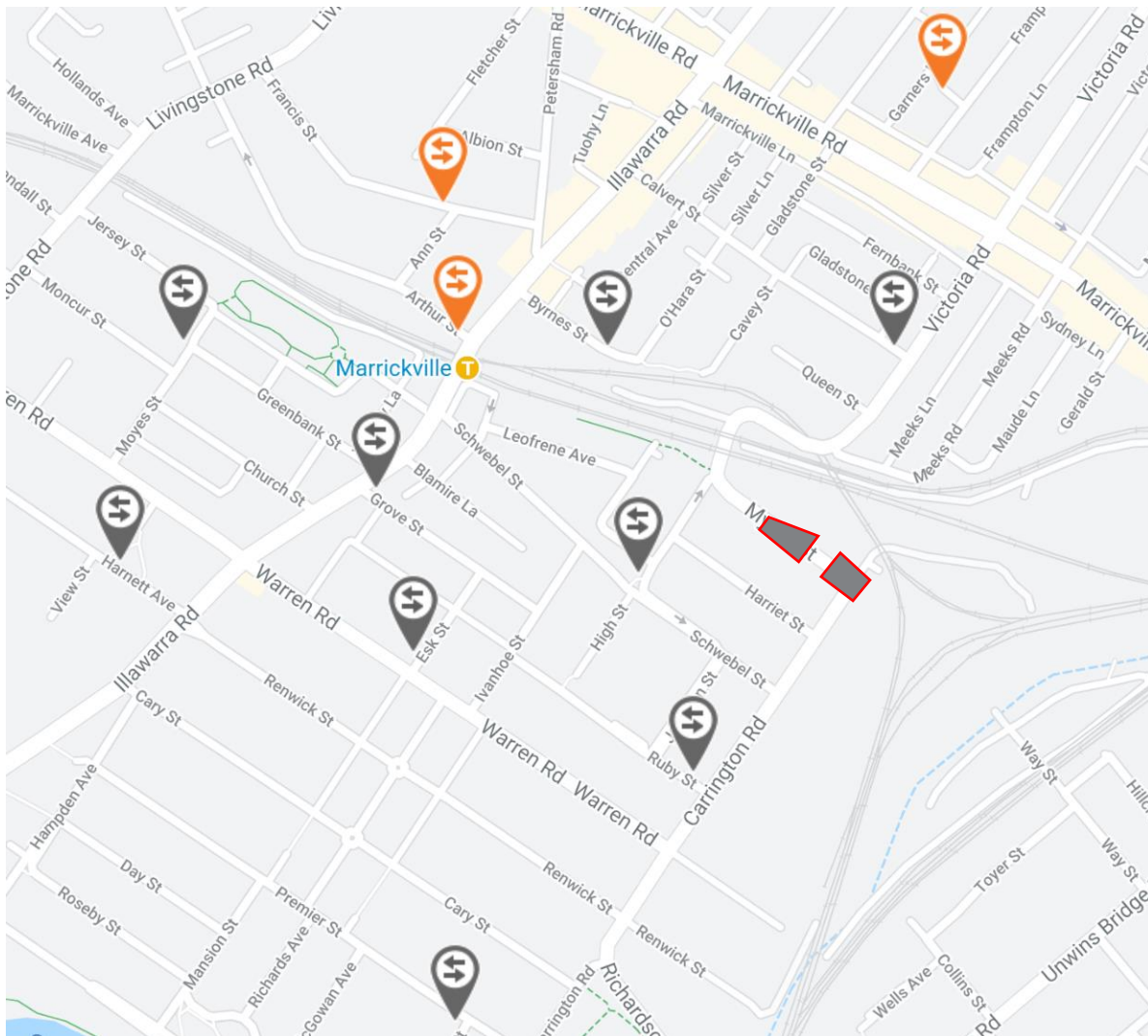
Source: Inner West City Council

3.6. Local Car Sharing Initiatives

Car share schemes have become increasingly common throughout Sydney and are now recognised as a viable transport option for drivers throughout Sydney. They offer an alternative to the private car and are likely to be of benefit to future tenants and commercial residents of the proposed development. Car share will form an integral part of the ongoing transformation of Marrickville to reduce vehicle ownership of existing and future residents, especially a second vehicle. This is crucial for areas with more apartment living where on-site car parking typically does not support ownership of more than one vehicle.

GoGet car share does have select car share pods close to the site, shown in Figure 3.15. The closest pod is located west of the site on Charlotte Avenue near Schwebel Street. With further transformation of the local area, there will be opportunities to negotiate with car share providers to increase supply nearby as viability increases with more residents and workers.

Figure 3.15: Go-Get car share pods



Base image source: GoGet website, accessed 7 May 2020

4. PARKING ASSESSMENT

04

4.1. Car Parking

The minimum car parking requirements for different development types are set out in the Marrickville Development Control Plan 2011 (Marrickville DCP). The development site is located within Parking Area 3 which applies to least accessible areas.

Strategic plans for Marrickville include a shared path along the railway corridor and possibility for a new station entrance near Riverdale Avenue that will significantly improve accessibility of the site and half the distance between the site and railway station. Furthermore, the build-to-rent and live/ work nature of the proposal would reduce the reliance of vehicle trips presenting an opportunity to reduce car ownership of future occupants. On this basis, it is considered more appropriate to adopt the DCP Parking Area 2 rates to the proposal which applies to moderately accessible areas. This supports the objectives of the DCP to promote sustainable transport and provide a balanced supply of car parking on-site. A lower car parking provision would be further supported by a green travel plan to emphasise to future tenants the alternative transport options available in the area and provision of car share services near the development. It is recommended that a framework green travel plan is prepared as part of any future development application and provided with any sales materials to future tenants reinforcing the developments strategy to promote alternative travel and lower car ownership.

In addition, State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development (SEPP 65) and the Apartment Design Guide states that residential developments located in the following areas:

- On sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area, or
- On land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre

should provide the minimum car parking requirement as specified in the Roads and Maritime Services (Roads and Maritime) Guide to Traffic Generating Developments 2002, or the car parking requirement prescribed by the relevant council, whichever is less.

Given the site is located within 500 metres of Marrickville railway station, this condition applies to the proposed site.

Table 4.1 summarises the car parking requirements set out in the Marrickville DCP (Parking Area 2) and Roads and Maritime Guide 2002. For the purposes of this assessment, an indicative size mix for the build-to-rent units has been adopted based on advice from Roberts Day. The unit mix would be confirmed as part of any future development application.

Table 4.1: Marrickville DCP and Roads and Maritime car parking requirements

Use	Description	Size	Marrickville DCP parking rate (Parking Area 2)	Roads and Maritime parking rate	Marrickville DCP parking requirement	Roads and Maritime parking requirement
Build-to-rent/ live-work (home business)	Studio	25-30 units (15%)	0.4 space per unit	0.6 space/ dwelling	10-12	15-18
	1 bed	60-80 units (35%)	0.5 space per unit	0.6 space/ dwelling	30-40	36-48
	2 bed	55-70 units (30%)	1.0 space per unit	0.9 space/ dwelling	55-70	50-63
	3 bed	35-45 units (20%)	1.2 space per unit	1.4 spaces per dwelling	42-54	49-63
	Visitor	-	0.1 spaces/ dwelling	0.2 spaces/ dwelling	18-22	35-45
Sub-Total					155-198	185-237
	Flexible Warehouse/ Industrial	5,565 sqm GFA	1 per 250m ² GFA for customers & staff		22	DCP applies
Total					177-220	207-259

Table 4.1 indicates that the proposal requires between 177 and 259 car parking spaces based on the adopted unit mix, including 22 spaces for the flexible warehouse.

The above assessment does not take into consideration the provision of adaptable units. The Marrickville DCP states adaptable units required one mobility parking space per unit, plus one visitor mobility space per four adaptable units. Furthermore, at least two warehouse parking space should be a mobility parking space. This will be considered as part of any future development application.

4.2. Bicycle and Motorcycle Parking

A review of the bicycle and motorcycle parking requirements set out in the Marrickville DCP against the development schedule is summarised in Table 4.2.

Table 4.2: Bicycle and motorcycle parking requirements

Use	Description	Size	Bicycle parking rate requirement	Bicycle parking requirement	Motorcycle parking rate requirement	Motorcycle parking requirement
Residential	Resident	175-225 units	0.5 spaces/ dwelling	88-113 spaces	0.05 spaces/ car space	9-13 spaces
	Visitor		0.1 spaces/ dwelling	18-23 spaces		
Flexible Warehouse/ Industrial		5,565 sqm GFA	1 space/ 150 sqm GFA	37 spaces		
Total				143-173 spaces		9-13 spaces

Based on the above, the proposal requires up to 150 bicycle spaces for residents/ employees, 13 motorcycle spaces and storage facilities, as well as up to 23 bicycle spaces for visitors, within the public domain and/ or a secure yet accessible location.

It is expected that such provisions will be incorporated into the proposal as part of any future development application, along with suitable end-of-trip facilities such as lockers and showers, the requirements detailed in the Marrickville DCP.

4.3. Loading and Services

Marrickville DCP states that for residential apartment buildings, one service vehicle space is required for every 50 apartments (above the first 50 apartments) up to 200 apartments, plus one space per 100 apartments thereafter.

In addition, one service vehicle space is required for every 2,000 square metres for the flexible warehouse component.

As such, the proposal would require a minimum of six service vehicles spaces, including three spaces for trucks. Marrickville DCP acknowledges that access for large vehicles cannot be achieved at all sites and suggests access is provided for up to small rigid vehicles only.

The site is constrained by the stormwater canal and therefore any basement level loading facilities would be difficult to accommodate. As such, it is recommended that on-street loading and short-term parking zones replace unrestricted parking provided along the Myrtle Street and Carrington Road site frontages as part of any future development application to facilitate any loading/ unloading activities generated by the proposal. This could equate to 30 metres and 15 metres of on-street loading and short-term parking zones on Myrtle Street and Carrington Road respectively.

Given the type of uses and likely tenants for the flexible warehouse space, it is expected that the majority of service or delivery vehicles will be vans, utilities and small rigid vehicles with the exception of the waste collection vehicles. Therefore, most vans and utilities would be able to use visitor parking spaces provided in the basements.

The minimum service vehicle requirement will be confirmed as part of any future development application, in conjunction with the waste management strategy.

4.4. Design Review

Marrickville DCP sets out requirements for the basement accesses. The driveways are located on Carrington Road (north) and Myrtle Street road frontages and provide access to less than 100 spaces each. Therefore, a six to nine-metre-wide driveway would be suitable with one metre splay at the kerb line. The proposed driveways will be located where crossovers

are currently provided for the site. The proposal will remove three existing crossovers which would reduce the number of conflict points and improve the pedestrian and cyclist amenity along the frontage. It is expected that the proposed accesses will be designed in-line with the intent of the DCP and comply with relevant Australian Standards.

The design of the car park and access, including the service vehicle arrangement will be detailed as part of any future development application and checked for compliance with the relevant Australian Standards and DCP requirements at that stage.

5. TRANSPORT ASSESSMENT

05

5.1. Traffic Generation

Traffic generation estimates for the proposal have been sourced from the Roads and Maritime Guide 2002 and Technical Direction: Updated Traffic Surveys (TDT 2013/ 04a).

Residential

TDT 2013/ 04a indicates an average weekday AM peak hour trip generation for sites surveyed in Sydney of 0.19 vehicle trips per unit. The PM peak hour rate are slightly lower at 0.15 vehicle trips per unit. These traffic generation rates are considered appropriate for adoption (if not conservatively high) given the intended build-to-rent and live/ work nature of the proposed units, and proximity to public transport. As such, the residential traffic generation is summarised in Table 5.1.

Table 5.1: Traffic generation by residential

Peak Hour	Residential Units	Traffic Generation Rate (per dwelling)	Traffic Generation (vehicles per hour)
AM Peak	175-225 units	0.19	33-43
PM Peak		0.15	26-34

Flexible Warehouse

TDT 2013/ 04a indicates an average weekday AM peak hour trip generation for warehouse sites surveyed in Sydney of 0.52 vehicle trips per 100 square metre GFA. The PM peak hour rates are slightly higher at 0.56 vehicle trips per 100 square metre GFA. These traffic generation rates have been adopted for this assessment and are considered conservative for the intended nature of the flexible warehouse space and the live/ work arrangements. The flexible warehouse traffic generation is summarised in Table 5.2.

Table 5.2: Traffic generation by warehouse

Peak Hour	Size	Traffic Generation Rate (per 100 sqm GFA)	Traffic Generation (vehicle trips per hour)
AM Peak	5,565 sqm	0.52	29
PM Peak		0.56	31

Summary

The proposal could potentially generate 57 to 72 vehicle trips during any weekday peak hour, which equates approximately one vehicle trip every minute.

Applying the warehouse traffic generation rates to the existing 2,000 square metres GFA on the site suggests that the existing industrial land uses could generate around 10 vehicle trips during any weekday peak hour. Therefore, the net additional traffic generated by the proposal could be in the order of 47 to 62 vehicle trips during any weekday peak hour.

5.2. Distribution and Assignment

The directional distribution and assignment of traffic generated by the proposed development will be influenced by a number of factors, including the:

- Configuration of the arterial road network near the site
- Existing operation of intersections providing access between the local and arterial road network
- Distribution of households near the site
- Surrounding employment centres, retail centres and schools in relation to the site
- Configuration of access points to the site.

For the purpose of estimating vehicle movements, it has been assumed that 50 per cent of vehicle trips will occur to the north towards Marrickville Road, and 50 per cent of vehicle trips will occur to the south towards Princes Highway.

In addition, a directional split of traffic (i.e. the ratio between the inbound and outbound traffic movements) of 20 per cent inbound and 80 per cent outbound in the weekday AM peak has been assumed for the residential component and vice versa in the weekday PM peak hour. For the flexible warehouse, the reverse directional split has been assumed compared to the residential units.

5.3. Traffic Impact

The traffic generated by the proposal will be distributed between two access driveways, resulting in up to 36 vehicles during the peak periods at each driveway, or less than 20 vehicles per direction. This equates to approximately one vehicle every two minutes or a vehicle every three minutes per direction from each driveway.

Observed existing traffic conditions near the site during the weekday afternoon peak period suggested there are approximately 1,140 vehicles per hour (820 vehicles southbound and 320 vehicles northbound).

Initial post-development modelling of the Myrtle Street site access and the Myrtle Street/ Carrington Road intersection during the weekday PM peak period suggests that development traffic would experience minimal delays and queuing and have minimal impact on the operation and capacity of the surrounding road network. However, to ensure any northbound development traffic through the Myrtle Street/ Carrington Road intersection does not obstruct the left turn movement, it is recommended that a no stopping restriction is implemented on the east side of Carrington Road within the intersection and at least 10 metres to the south to maintain adequate right turn manoeuvring area through the intersection.

It is recommended that the operation and appropriate design of the site accesses and Myrtle Street/ Carrington Road intersection are confirmed as part of any future development applications.

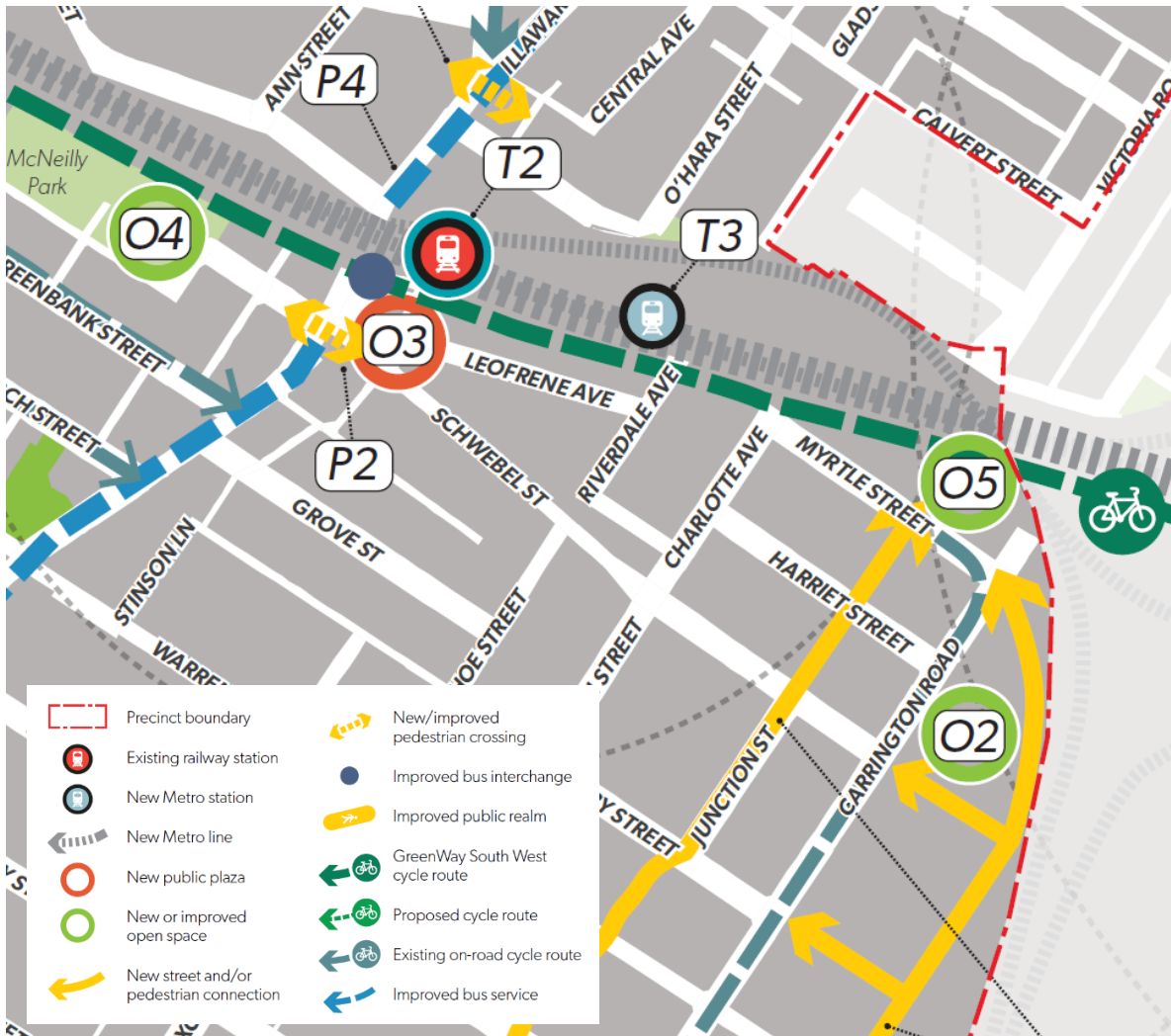
5.4. Improvements and Recommendations

There are currently no crossing facilities for pedestrians along the desire line towards Marrickville railway station. There is opportunity to investigate extending the footpath along the north side of Myrtle Street towards the west, provide a safe crossing facility as well as upgrade the existing pathway and lighting to the railway station to improve pedestrian connectivity and safety.

However, as discussed and illustrated in Figure 5.1, the Marrickville Station Precinct Plan identifies opportunities for a potential new shared path along the existing rail corridor between Bankstown and Sydenham that would enhance local movement along the corridor and encourage short trips by active travel modes.

In addition, the Plan identifies the opportunity to create new open space between Myrtle Street and the railway corridor adjacent to the stormwater canal. The development proposal has already considered the opportunities identified in the Plan with its proposed open space linking Myrtle Street and the rail corridor.

Figure 5.1: Marrickville Station Precinct – Infrastructure



Source: Department of Planning and Environment, June 2017

6. CONCLUSION

06

Based on the analysis and discussions presented within this report, the following conclusions are made:

1. The proposal aligns with strategic planning by creating a place to live and work near public transport, as well as contributing towards improving the active travel network with the proposed open space along the stormwater canal linking to any potential shared path along the railway corridor provided as part of the metro conversion.
2. The site is well situated from a transport perspective, being five minutes' walk of Marrickville railway station and therefore leveraging the Sydney Metro City and Southwest project, which is due to commence services in 2024.
3. It is recommended that a green travel plan is prepared for the development to promote alternative travel modes available near the site and its intentions of reducing car ownership of future tenants.
4. The proposal generates a DCP or Roads and Maritime parking requirement of 177 to 259 car spaces, when adopting the DCP rates for Parking Area 2, which is considered more appropriate for the proposal.
5. The proposal also generates a DCP requirement for 143 to 173 bicycle parking spaces and up to 13 motorcycle parking spaces across the two sites.
6. It is recommended that on-street loading and short-term parking zones are considered along the Myrtle Street and Carrington Road site frontages to facilitate any loading/ unloading activities generated by the proposal given service vehicle requirements are expected to be up to small rigid vehicles except for waste collection.
7. The proposal could potentially generate 57 to 72 vehicle trips during any weekday peak hour, which equates to one vehicle every two minutes at the two accesses. This represents a net increase of 47 to 62 vehicle trips when accounting for traffic associated with the existing land uses.
8. Based on initial post-development modelling of the Myrtle Street site access and the Myrtle Street/ Carrington Road intersection during the weekday PM peak period, development traffic would experience minimal delays and queuing, and have a minor impact on the operation and capacity of the surrounding road network.

