Central Park Block 8 Mixed Use Development

State Significant Development Application

Traffic and Transport Report

transportation planning, design and delivery

12S1395502 22/01/14

GTAconsultants

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Issue: B 22/01/14

Client: Frasers Broadway Pty Limited
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1. Introduction

This report has been prepared on behalf of Frasers Broadway Pty Ltd to accompany a State Significant Development Application for a mixed use development known as Block 8 at Central Park, Chippendale. Frasers prides itself on delivering high quality and environmentally responsible development projects and Block 8 demonstrates the Frasers ethos.

Block 8 is located at the south western corner of the Central Park site and is bound by Irving Street and proposed student housing to the north, Central Park Avenue and Chippendale Green to the east, O'Connor Street and existing commercial and industrial development to the south, and Abercrombie Street and existing residential and mixed use development to the west.

The current Block 8 proposal is consistent with the Central Park approved Concept Plan (as modified) and comprises the following:

- 13 storey mixed use building including residential and retail uses
- 178 apartments
- terraces, balconies and/or loggias to all apartments
- residents' amenity
- ground floor retail tenancies
- basement car parking, and
- public domain works.

Block 8 will provide a mix of much needed residential accommodation in an area well serviced by public transport, and in close proximity to the retail, work and education opportunities offered by the Sydney Central Business District and surrounds.

Figure 1.1 shows the location of Block 8 in the context of the overall Central Park site.

Figure 1.1: Locality Plan

The DoPI has issued Director-General's Requirements (DGRs) for this project. The issues raised in the DGRs have been considered during the preparation of this transport assessment report. Table 1.1 summarises the relevant issues (as related to transport and traffic) together with descriptions how the issues have been addressed.

Table 1.1: Director-General's Requirements

Issues	How Addressed	Report Section
Detail access arrangements at all stages of construction.	This is addressed in the Construction Traffic Management Plan prepared by GTA Consultants (Ref: 131216rep-12S1395502 Block 8 CTMP dated 16 December 2013).	The CTMP is provided under a separate cover (see GTA Report Ref: 131216rep-12S1395502 Block 8 CTMP dated 16 December 2013).
Detail support of non-private vehicle travel methods such as provisions for bicycle parking and car sharing scheme.	The site is located in close proximity to high frequency, good quality public transport services. In addition, it is proposed to provide any car parking significantly less than the maximum LEP requirement, provision of bicycle parking spaces in accordance with DCP requirements. The Concept Plan approval (Condition B7) requires commercially operated car schemes be available to residents. Some 70 car share pods would be available within the wider Central Park site. In addition, the amended Concept Plan for the overall site proposes a number of additional pedestrian and cycle facilities.	See Section 5 See Section 6
Provide accurate details of daily and peak vehicle movements and assess the impacts of this traffic on the local network, including intersection capacity, having regard to local planning controls.	The then RTA assessed the traffic effects arising from the Concept Plan, which the RTA has subsequently approved. The Concept Plan traffic assessment has an allowance of 33 vph during the peak periods for Block 8. With the proposed modifications for Block 8, it is now expected that it generate about 38 vph. Including other changes within Central Park, the net additional traffic is about 20 vph. This is considered to be acceptable.	See Section 4
Demonstrate appropriate provision of on-site car parking	It is proposed to provide car parking at a significantly lower rate than the LEP stipulated maximum rate.	See Section 5.
A Work Place Travel Plan and Travel Access Guides for employees, residents and visitors to the site.	As the building is yet to be occupied at this stage, it would be difficult to prepare an effective Travel Plan. However, in Section 7 of this report, a framework for the development and implementation of such a travel plan has been outlined. It is suggested that there should be a consent condition requiring a travel plan be prepared after occupation of the buildings. The Travel Access Guide is provided in Appendix B.	See Section 7. See Appendix B.
Construction Management Plan and Traffic Management Plan.	A Construction Traffic Management Plan has been prepared by GTA Consultants (Ref: 131216rep-12S1395502 Block 8 CTMP dated 16 December 2013).	See GTA Report Ref: 131216rep-12S1395502 Block 8 CTMP dated 16 December 2013.

The remainder of this report is set out below:

- Chapter 2 provides an overview of the project to date
- Chapter 3 describes the development proposal
- Chapter 4 reviews the traffic implications of the proposal
- Chapter 5 assesses the off street car park provision and servicing arrangements
- Chapter 6 reviews the other transport implications arising from the proposed development
- Chapter 7 presents a preliminary Green Travel Plan, and
- Chapter 8 presents a summary and concludes the study.

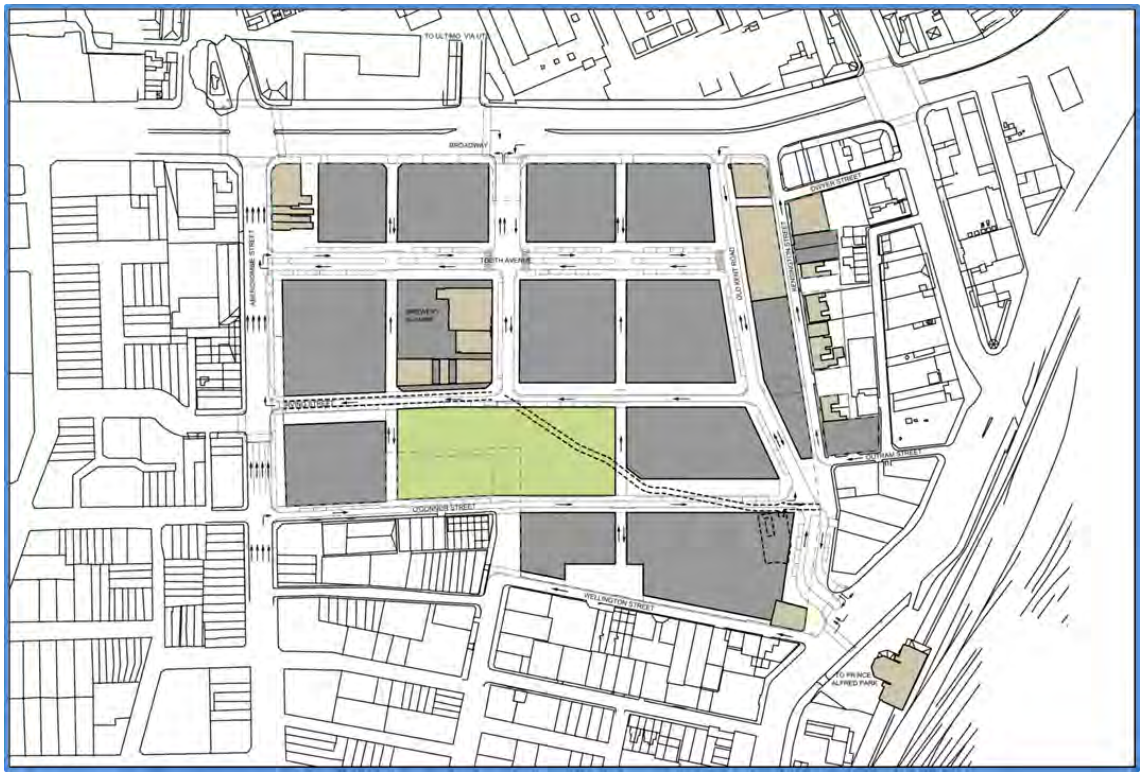
2. Project to Date

2.1 Original Concept Plan

The Carlton and United Brewery site (as it was known back then) was originally approved for redevelopment in February 2007 (MP06_0171) under the Part 3A process. The proposed redevelopment of the site includes high density residential, commercial and retail uses.

A plan showing the development as approved in February 2007 is shown in Figure 2.1.

Figure 2.1: Original Approved Concept Plan



Halcrow (formerly Masson Wilson Twiney Pty Limited) prepared a traffic and transport assessment report[1] for the original concept scheme. The findings and recommendations of this report were taken into account in the concept plan approval.

Traffic implications of the original concept plan were examined in detail by the then RTA (now known as Roads and Maritime Services, RMS) using a Paramics microsimulation traffic model. The RTA found the traffic impacts of the development were within acceptable limits and granted its agreement to the concept plan transport elements including all proposed road connections to the surrounding road network.

[1] Carlton and United Brewery Site – Stage 1 Masterplan Traffic Report, Masson Wilson Twiney Pty Limited October 2006

2.2 Amended Concept Plan

The site was purchased in June 2007 by Frasers.

Following a series of stakeholder consultations, Frasers developed an amended scheme for the site. The amended Concept Plan was approved by the then Department of Planning (DoP) in July 2007 (MP 06_171 MOD 1). This was followed by a number of further modifications[2] to the original approval. The last one being MP 06_0171 MOD 7 approved in January 2013. It is noted there is one further proposed modification currently before the Department for determination in relation to the approved Concept Plan. This is further discussed at the end of this section.

The approved amended Concept Plan included the same grid like building configuration as the original concept scheme. Below is a summary of the relevant amendments to the original approval (from the six approved modifications):

- increase in site area and gross floor area with revised residential and commercial land use mix
- changes to building envelopes for the 11 development blocks
- increase in area of public open space
- reduced car parking provision (maximum of 2,000 car spaces) provided within various combined underground car parks proposed to minimise surface traffic within the site
- removal of some internal streets to create a low speed traffic environment within the precinct.

The current approved development mix is as follows:

- up to a maximum of 255,500m^2 GFA for mixed use
- a minimum of 76,650m^2 of commercial use (including retail use)
- a maximum of 178,850m^2 (equivalent to approximately 2,000 apartments) of residential use.

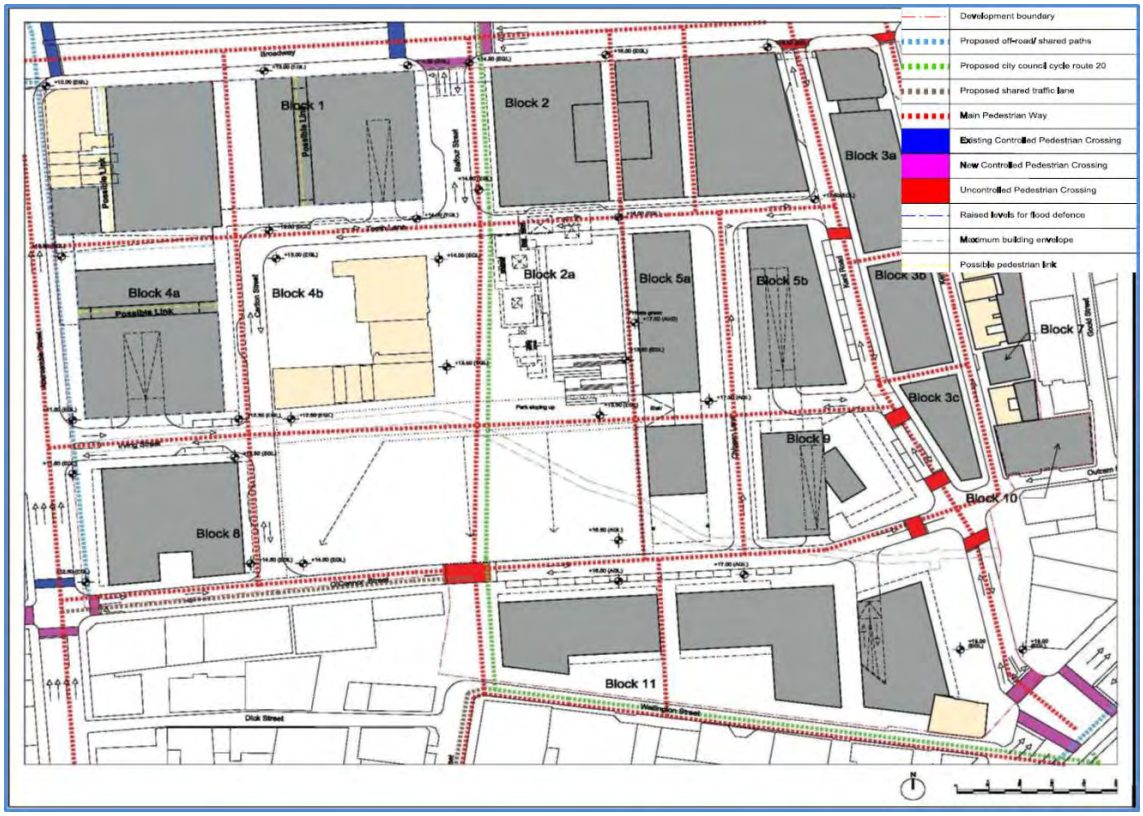
It is noted that the above permissible minimum and maximum floor areas are subject to a current modification to the Concept Plan (MP 06_0171 MOD 8) currently being assessed by the Planning Assessment Commission.

It is further noted that under the current approval, Block 8 is permissible to be developed as a mixed use with a maximum gross floor area of 14,500m^2. MP 06_0171 MOD 8 is also proposing an adjustment to the permissible maximum floor area for Block 8.

A plan showing the approved amended Concept Plan including the internal road network and external road network connections is shown in Figure 2.2.

[2] MP 06_0171 (MOD 2) was the last significant modification relating to this approval. Subsequent approvals MP 06_0171 (MOD 3 and MOD 4) are of no significance to traffic and transport impacts. MP 06_0171 (MOD 6) allows the modification of the approved floor areas and building envelopes to Blocks 6 and 10. In addition, DoPI recently approved an application (MOD 7) to re-allocate gross floor area within the Kensington Precinct with the total gross floor area across the site staying the same.

Figure 2.2: Amended Concept Plan



As indicated previously, DoPI at present is considering a proposed modification to the Concept Plan (MP 06_0171 MOD 8). Application MP 06_0171 MOD 8 was lodged with DoPI in December 2012 seeking approval to include both residential and non-residential uses within Blocks 1 and 4 (currently approved for non-residential uses only), and to excise Buildings 4S from Blocks 1 and 4. This application is currently being determined by DoPI.

Finally it is noted that the approval to Project Application MP 08_0253 which relates to developments on Blocks 1 and 4 was granted allowing the construction of a 10-15 storey commercial building with five levels of basement for car parking within Blocks 1 and 4 at Central Park with a maximum of 533 car parking spaces. This included 148 spaces to serve the development within Block 8. The approved car spaces are to be provided in the combined basement beneath Blocks 1 and 4. However, Block 8 is now proposed to have its separate basement which would be accessed from Irving Street.

3. Development Proposal Description

3.1 Proposed Development

The application seeks approval for the construction of a new mixed use building on Block 8 within the Central Park site. The proposed building comprises thirteen (13) storeys and includes:

- 178 residential apartments with the following apartment mix:
  - studio units – 43 units
  - 1-bedroom units – 63 units
  - 2-bedroom units – 59 units
  - 3-bedroom units – 13 units
- two ground floor retail tenancies with a total floor area of approximately 135m^2
- ground floor loading area, and
- a three-level basement car park.

The total proposed gross floor area is 14,303m^2 including 135m^2 of retail use.

Of the proposed 178 residential units, 27 of these would be provided as adaptable units.

It is proposed to provide 88 car parking spaces including 28 accessible car spaces and six car share spaces. In addition, it is proposed to provide 10 motorcycle spaces and 229 bicycle storage spaces for residential tenants (as part of the apartment storage requirements) plus one bicycle space for the non-residential tenants and 21 visitor bicycle parking spaces.

The car parking spaces and motorcycle parking spaces are proposed to be located within the basement to be accessed from Irving Street. Visitor bicycle parking spaces are proposed to be located on the ground floor at the Abercrombie Street and Irving Street sides of the proposed building.

A loading area is proposed to be located on the ground floor off Irving Street. Due to site constraint, a truck turntable is proposed to allow service vehicles to enter and exit the loading bay in a forward direction. The proposed loading area could accommodate vehicles up to Council's 9.5m long waste collection vehicle. This has been discussed with the City of Sydney Council. Council has advised acceptance of the proposed turntable in principle.

3.2 Vehicular Access

Vehicle access to the basement car park and loading area is proposed to be provided off Irving Street.

A new crossover on Irving Street located approximately 25m east of Abercrombie Street is proposed to provide access into the basement car park. A separate crossover is proposed to provide access to the loading area. The two crossovers would be separated by 2.0m to provide separation between driveways and provide a refuge area for pedestrians walking along the footpath adjacent to Irving Street.

4. Traffic Implications

4.1 Concept Plan Traffic Estimate

As stated in Section 2 of this report, the traffic impacts of the site as a whole have been assessed and deemed satisfactory by then RTA (now RMS). In addition, the proposed connections to the surrounding road network have also been approved by the then RTA.

The approved Concept Plan (and the subsequent amended Concept Plan) estimated that the entire development would generate some 493 vehicle trips per peak hour. Subsequent modifications to the original approval for Blocks 2 and 5 resulted in the overall development traffic increasing from 493 vph to 535 vph (see additional discussion in Section 4.2 below).

The traffic assessment that accompanied the Concept Plan application (MP 06_0171 MOD 2) estimated that Block 8 would generate some 33 vehicles per hour (vph) during the peak periods. This level of traffic related to a mixed use development with a total gross floor area of some 13,500m^2 including some 140 residential apartments.

It is noted that subsequently the amended Concept Plan (MP 06_0171 MOD 2) allows a maximum floor space area of 14,500m^2 for Block 8 to be developed as a mixed use development.

4.2 Updated Central Park Overall Traffic Generation

In December 2012, Frasers submitted three concurrent applications relating to Blocks 1 and 4

- Central Park Concept Plan Proposed Modifications (MP 06_0171 MOD 8) – this application seeks approval to amend the mix of the approved use and re-distribute the approved floor areas within Blocks 1 and 4.
- Blocks 1 and 4 Project Application – this application seeks approval to excise Building 4S and Block 8 parking from the original Project Application approval (MP 08_0253) and Buildings B1 and 4N continue to be developed as commercial use as per the original approval, and
- Blocks 4S State Significant Site Application – this application seeks approval to develop Building 4S as a standalone building to provide student accommodation.

In the above applications, it was estimated that the proposed developments within Blocks 1, 4 N and 4S (including the Brewery Yard) would generate about 127 vph during the peak periods at worst (assuming Block 1 would be developed as residential use). That is, a net increase of 10 vph (being 127 vph (from the current proposal based on the worst case scenario) less 117 vph (allowance for Blocks 1 and 4 in the Concept Plan traffic assessment).

Previously, consultants Halcrow conduct a traffic capacity analysis of the three access intersections serving the Central Park site to assess the traffic effects arising from the proposed changes to Blocks 2 and 5 apartment mixes and yield where the overall development traffic was estimated to be 535 vph[3]. The SIDRA analysis results indicate that the access intersections serving the site would have good level of service (level of service B or better) in the future.

[3] Halcrow report *Central Park Mixed Use Development – Project Application for Block 5C Residential Building Traffic Report* (Ref: CTLRDOr05 110819 Final.doc) dated Final, 19 August 2011.

Including the additional 5 vph arising from the recent proposed modifications to Kensington Precinct (see project applications and the accompanying traffic assessment reports for MP 11_0089 (Block 3A), MP 11_0090 (Blocks 3B, 3C & 10)[4] and MP 11_0091 (Blocks 6 & 7)), the overall site development traffic would increase from 535 vph to 550vph i.e. a total increase of 15 vph.

The additional 15 vph represents about three per cent of the total development traffic estimated in the Concept Plan traffic assessment (i.e. 493 vph). It is noted that the adjacent arterial roads (i.e. Broadway and Abercrombie Street) have peak hour volumes in the range between 2,000 vph to 5000 vph. Therefore, the additional 15 vph is very low in comparison to the existing background traffic. In additional, this traffic would be spread across a number of access points to/from Central Park. The previous SIDRA analysis conducted by consultants Halcrow indicated the three access intersections would operate at good level of service with additional spare capacity.

On this basis, it was concluded that the additional 15 vph would also be acceptable.

4.3 Traffic Generation for Block 8

This application seeks approval for a mixed use development on Block 8 with a total gross floor area of 14,303m^2 including 135m^2 of retail use. The residential component comprises a total of 178 residential apartments (106 studio and 1-bedroom units and 72 2-bedroom and 3-bedroom units).

The traffic generation rates relating to residential use from the previous traffic reports accommodating the various Concept Plan applications are as follows:

- 0.20 peak hour trips for studio and one bedroom units, and
- 0.24 peak hour trips for two and three bedroom units.

It is noted that the traffic generation for the retail component and uses has been excluded. This is consistent with the previous traffic assessments. At any rate, traffic generation for the proposed retail use would be low. The custom for the types of proposed retail use would be predominately by walk-in pedestrians make up of tenants living/working in the building or other buildings in the immediate vicinity of the site. Any development traffic generated by such retail uses would be related to staff/business owners arriving and departing to/from the site. This generally occurs outside of the peak periods.

As such, the current proposal for Block 8 would generate approximately 38 vph.

It is noted that the above traffic generation rates were based on traffic generation surveys of similar residential developments to that proposed that are located nearby to Central Park. These rates are approximately 17 per cent less than the traffic generation rate recommended by RMS for high density residential developments.

It is further noted that RMS has recently released updated traffic generation rates for high density residential development based on more recent surveys conducted by RMS. These surveys were conducted to specifically replace the recommended rates in their current Guide to Traffic Generation Developments guidelines. The updated traffic generation rate for high density residential developments is 0.19 trips per hour per unit.

In addition, it is proposed to provide significantly less parking than that required by LEP2005.

[4] It is noted that the project application MP 11_0090 has been approved as proposed by the DoPI in November 2012.

As such, it is expected that Block 8 would generate development traffic less than the above estimate of 38 vph.

As indicated previously, the previous traffic assessment conducted as part of the Concept Plan application had an allowance of 33 vph for Block 8. Therefore, the current proposal for Block 8 would generate a net additional 5 vph at worst. The traffic would be spread across multiple access points.

At this low level of additional traffic, the proposed development on Block 8 is unlikely to create any noticeable traffic effects to the surrounding road network including the access intersections serving the Central Park development. Traffic effects of the proposed development would therefore be acceptable.

5. Parking Assessment

5.1 Parking Requirement

The City of Sydney Council's *Local Environmental Plan 2005 Chapter 2 Central Sydney* (LEP) and *Sydney Development Control Plan 2012* (DCP) requires parking for various types of development uses.

5.1.1 Residential Uses

The Sydney City Council LEP requires parking for various types of development uses. For residential uses, the LEP stipulates the following maximum parking rates:

- Studio units 0.25 spaces per unit
- 1 bedroom units 0.5 spaces per unit
- 2 bedroom units 1.2 spaces per unit
- 3 bedroom units 2 spaces per unit.

5.1.2 Non-Residential Uses

The LEP stipulates on-site parking for non-residential uses to be provided in accordance with the formula below:

$$Max.Car\ Parking = \frac{Total\ Other\ FSA}{Total\ FSA\ within\ Development} \times \frac{Site\ Area}{50}$$

The LEP requires that 1-2 per cent of the total number of commercial/retail parking spaces to be accessible for persons with mobility impairment.

5.1.3 DCP Parking Requirements

The DCP also requires parking for service vehicles as follows:

- residential 1 space per first 50 apartments + 0.5 for every 50 apartments thereafter, and
- retail (shops) 1 space per 350m^2 GFA (up to 2,000m^2).

The DCP also requires motorcycle parking be provided at a rate equivalent to at least one car space per 50 car parking spaces provided.

In relation to parking for bicycles, the DCP requires one space per dwelling for residential tenants plus one space per 10 dwellings for residential visitors. For retail use, one space per 25m^2 for employees is required plus an additional 2 spaces plus 1 space per 100m^2 over 100m^2 GFA.

It is noted that Council is proposing amendments to some provisions of DCP2012. These amendments include:

- parking provision rate for motorcycles is proposed to amend to one motorcycle parking space for every 12 car parking spaces provided
- bicycle parking provision rate for retail staff reduced to one space per 250m^2.

5.1.4 Parking Requirement Summary

Table 5.1 presents a summary of the LEP and DCP required parking provisions for Block 8.

Table 5.1: LEP and DCP Required Parking

Proposed Use	Car Parking	Service Bays	Motorcycle Parking†	Bicycle Parking†
Residential Use				
- Tenants	139	N/A	7‡	178
- Visitors	Nil	2	N/A	18
Non-Residential Use				
- Tenants	1	N/A	N/A	0.5
- Visitors	Nil	0.4	N/A	2
Total	140∞	2	7	199

∞ maximum required provision

† based on proposed amendments to DCP

‡ based on a proposed provision of 88 car parking spaces

The LEP stipulates a maximum of 140 car parking spaces to be provided. In addition, two service vehicle bays are required. It is also required to provide a total of 199 bicycle parking spaces including 20 visitor bicycle parking spaces.

5.2 Proposed Parking Provisions

It is to provide a total of 88 car parking spaces comprising:

- 82 residential tenant parking spaces (including 28 accessible spaces) , and
- six car share spaces.

The proposed provision of 88 car parking spaces is less than the maximum requirement of 140 car parking spaces. Therefore, car parking provision is satisfactory. In addition, Frasers is committed to providing the lessor of the LEP requirement for on-site car parking provision or 2,000 car parking spaces across the entire Central Park site.

In relation to provision for motorcycle parking, from Table 5.1 seven motorcycle parking spaces are to be provided. The arhictectural plans indicate 10 motorcycle parking spaces are proposed.

It is proposed to provide 229 bicycle spaces for residential tenants plus 18 residential visitor bicycle spaces. In addition, one tenant bicycle parking space and three visitor bicycle parking spaces for non-residential uses are also proposed. The proposed provision is consistent to DCP2012 requirements.

Finally, in relation to service vehicle bay it is proposed to provide one loading bay to be shared between the residential and non-residential uses. The proposed loading bay can accommodate vehicles up to a 9.5m long rigid vehicle. This proposed provision has been discussed with the City of Sydney Council. Council has advised acceptance of this.

It is noted that six car share spaces are proposed within the basement of Block 8. This is part of the 70 car share spaces Frasers is committed to provide throughout the site (to satisfy Green Star requirements for the overall site). It is further noted that DCP 2012 provides car share provision rates for residential developments varying from one car share space per 50 car spaces provided to one car share space per 90 car spaces provided depending on the category of the development site as defined

in the maps contained within LEP 2012. As LEP 2012 does not specifically apply to the Central Park site, therefore the Central Park site has not been identified with a category. However, adopting the highest rate (one space per 50 car spaces provided), Block 8 with 88 car parking spaces would require two car share spaces. Therefore, the proposed provision of six car share spaces is satisfactory.

5.3 Internal Parking Layout

The proposed parking spaces are proposed to be located within basement levels to be accessed from Irving Street. A straight ramp with a maximum gradient of 1:4 (with appropriate transitions) is proposed to provide access into the basement levels. Security of the car park is provided by means of a roller shutter door at the top of the ramp. The roller shutter door would be operated by remote control.

Three basement levels are proposed with each configured as a split level.

Each split level is connected by a straight ramp at either end of the car park. Car spaces within the basement levels are proposed to be arranged as 90 degree spaces along the peripheries of the basement with an additional row of parking located at centre of the higher split level adjacent to the lift core.

It is proposed that the car park and associated elements such as space dimensions, circulation aisles, ramp to be designed in accordance with the relevant Australian Standard for car parking facilities, namely AS2890.1: 2004 and AS2890.6:2009.

General car parking spaces for tenants and visitors are proposed to be designed as a Class 1A car park facility as specified in the Australian Standard. That is, general car parking spaces would have dimensions 2.4m wide by 5.4m long with an aisle width of 5.8m. Accessible car spaces would also have dimensions of 2.4m wide by 5.4m long. An additional shared area for accessible spaces with the same dimensions would also be provided.

Design of the car park has only been taken to a level to demonstrate that the proposed car park could be designed to comply with the relevant Australian Standard, while providing sufficient parking spaces to comply with requirements stipulated in the LEP.

The proposed car park layout plans are contained in Appendix A.

6. Other Transport Implications

6.1 Existing Public Transport

The site, being within the Sydney City Centre, is well served by regular bus services along Parramatta Road/Broadway as well as Harris Street with direct services into the CBD and surrounding destinations such as Glebe, Newtown, Abbotsford, Kogarah etc. The nearest bus stop is on Broadway which is literally at the "door step" to the site.

In addition, the site is located approximately within 550m walking distance to Central Railway Station. Central Railway Station services all train lines within the CityRail network, and is a major terminus for suburban as well as interstate rail services. As such, all CityRail railway stations could be accessed from Central.

The site is also located within walking distance of a light rail stop at Central Railway Station. Running from Central Railway Station, the light railway network connects Lilyfield to the inner city areas such as Darling Harbour and Ultimo. It has a peak period frequency of 10 minutes.

The Travel Access Guide prepared for the site (see Appendix B) provides details on the available bus and train services near the site. The Travel Access Guide indicates that the area is very well served by public transport.

6.2 Existing Walking & Cycling Facilities

The site is also very well situated in terms of provision for walking and cycling. There are a number of strategic and local cycling routes and links in the vicinity of the site.

Public footpaths are currently provided along the majority of roads in the local network. Fully constructed footpaths are available on both sides of Broadway in the vicinity of the site with generous width. Similarly, along Harris Street, Regent Street, and Abercrombie Street fully constructed pedestrian footpaths are also available on both sides of the streets. The pedestrian network continues into the residential streets to the south and west of the site as well as across Broadway into the area to the north of the site.

There is an existing on-road cycle path that runs along Wilson Street near Newtown that joins on to Shepherd Street to continue along Broadway near Mountain Street before heading north along Jones Street towards Pyrmont Bay. The section along Broadway is provided as off-road shared pedestrian/cycle path.

A combination of other on-road and off-road cycle links provide access to the surrounding suburbs.

In addition, on-road cycling is also permissible on the local road network where traffic volumes are generally considered to be moderate.

6.3 Existing Bicycle Parking Provision

City of Sydney Council provides free bicycle parking spaces on most streets within its local government area. They are provided either as bicycle parking rings or U-rail parking. There are a number of bicycle parking rings located on Broadway within the immediate vicinity of the site.

6.4 Proposed Cycling and Walking Arrangements

It is anticipated that the development would attract some additional walking and cycling trips. However, it is considered that the development would have minimal impact on existing walking and cycling facilities on the surrounding road network.

The following enhancements to pedestrian and cycle networks are proposed as part of the amended Concept Plan for the overall Central Park development site.

Pedestrian crossing facilities will be provided across the main roads surrounding the site, namely Broadway, Abercrombie Street and Regent Street. Pedestrian pathways will be provided on both sides of all internal streets within the site. A shared pedestrian/cycleway link to Wellington Street would be provided through the proposed park. This shared pathway would continue through the park to connect to Chippendale Way. A raised pedestrian threshold is also proposed across O'Connor Street adjacent to the main park at the centre of the overall site.

The provision of bicycle facilities through the site has accounted for external linkages to existing and proposed bicycle routes as part of the City of Sydney Council's Bicycle Plan.

A shared pedestrian/cycleway will be provided through the park from Wellington Street to Chippendale Way. Recreational cyclists will utilise the shared laneways to access Central Park Avenue before making their way to Broadway. Non-recreational cyclists will utilise the sign posted cycle route through the site along Chippendale Way.

This will create a permeable pedestrian/cycle network through the Central Park site which will be fully accessible by local people and people traversing the site. This accessibility will thus enhance existing pedestrian/cycle accessibility between Chippendale and the node of public transport represented by Railway Square/Central Station.

In addition, Council's has plans for an off road shared pedestrian/cycle pathway along the eastern side of Abercrombie Street.

Figure 2.1 also shows the above amended Concept Plan proposed additional pedestrian and cycle facilities.

In addition, the proposed overall Central Park development proposes to provide bicycle parking spaces in accordance with the requirements set out in Council's LEP and DCP.

6.5 Future Public Transport Patronage

It is expected that employees working and residents living on the site would make use of the existing available public transport services. However, as the site is well serviced by both bus and heavy rail services, it is not expected that it would require further augmentation to enhance existing public transport service in the area.

Further, any improvement to public transport services would be a matter for the consideration of the Transport for NSW as part of its long term strategic planning and implementation of public transport services.

7. Green Travel Plan

7.1 Introduction

Transport is a necessary part of life, but it has economic, public health and environmental consequences. The transport sector is one of the fastest growing emissions sectors in Australia, and therefore is one of the key opportunities for reducing greenhouse gases. As well as delivering better environmental outcomes, providing a range of travel choices with a focus on walking, cycling and public transport will have major public health benefits and will ensure a strong and prosperous community.

The physical infrastructure being provided as part of the development is only part of the solution. A Green Travel Plan will ensure that the transport infrastructure, services and policies both within and external to the site are tailored to the users and co-ordinated to achieve the most sustainable outcome possible.

7.2 What is a Green Travel Plan

A Green Travel Plan is a package of measures aimed at promoting sustainable travel and reducing reliance on the private car. It is not designed to be 'anti-car', but will encourage and support people's aspirations for carrying out their daily business in a more sustainable way. Travel Plans can provide both:

- measures which restrict car use (disincentives or 'sticks'); and
- measures which encourage or support sustainable travel, reduce the need to travel or make travelling more efficient (incentives or 'carrots').

The Travel Plan would promote the use of transport, other than the private car, provide choice for travel to and from the site, which is more sustainable and environmentally friendly.

Indeed, there are a range of "non-car" transport options that are available at the site which have been described in this report.

7.3 Key Objectives

The aim of the Green Travel Plan is to bring about better transport arrangements for residents living on the site. The key objectives of the Travel Plan are:

- to encourage walking
- to encourage cycling
- to encourage the use of public transport
- to reduce the use of the car, in particular single car occupancy; and
- where it is necessary to use the car, encourage more efficient use.

It is the intention therefore that the Travel Plan will deliver the following benefits:

- enable higher mode share targets to be achieved
- contribute to greenhouse gas emission reductions and carbon footprint minimisation
- contribute to healthy living for all

- contribute to social equity and reduction in social exclusion; and
- improve knowledge and contributes to learning.

Green travel plans are historically the most common type of travel plan in the UK and the USA as regular journeys such as the daily commute to work tend to be the easiest to influence.

It is difficult at this stage without knowing the type and location of the occupants to prepare a detailed Green Travel Plan. It would be reasonable for a condition to be imposed on a development consent which would ask the developer to design and implement a plan prior to occupation of the site and Frasers (and any future owners of the buildings) will commit to providing such a Travel Plan.

7.4 Site Specific Measures

As stated earlier, it is difficult to be specific about the measures that might be introduced until the demographics of the occupants are fully understood.

However, it is likely that the Travel Plan at this site could include the following measures:

- compliance with the stringent parking controls applicable to the site
- creation of street networks and associated cycle ways, footpaths and links to encourage cycling and walking
- provision of a TAG (the proposed guide is contained in Appendix B) which would be given to every new occupant of the dwellings (this information will need to be updated prior to occupation to ensure that the most up to date information is available to new residents)
- public transport information boards to make residents and visitors more aware of the alternative transport options available (the format of such information boards would be based upon the travel access guide)
- provision of free weekly/quarterly public transport tickets for the initial occupation of the dwellings so that residents will be encouraged to make public transport their modal choice from the day they occupy the property
- in accordance with NBN requirements, all properties will be provided with high quality telecommunication points which will provide residents with the opportunity to work from home thus reducing the need to travel
- provision of bicycle parking spaces both for residents and for visitors to the site
- a half yearly newsletter to be provided to every household for up to two years after occupation bringing the latest news on sustainable travel initiatives in the area, and
- provision of half yearly membership to a car sharing.

All of these measures would need to be in place from 'Day One' as people will establish habits of a lifetime from day one.

Frasers has therefore put together the framework of a Travel Plan which would form the basis of the formal document. Future building owners will also make a commitment in how the plan will be practically managed.

7.5 Travel Access Guide

A Travel Access Guide (TAG) provides information to residents and visitors on how to travel to the site using sustainable transport modes such as walking and public transport. The information is presented visually in the format of a map showing the site location and nearby transport nodes highlighting available pedestrian and cycle routes. The information is usually presented as a brochure to be included in a welcome pack or on the back of company stationary and business card.

A preliminary TAG has been specifically prepared for the subject proposed development. This is contained in Appendix B.

7.6 Summary

Future building owners/managers should be required to develop and utilise a Travel Plan to improve the use of sustainable transport by the tenants living in the building. Although it is difficult to predict what measures might be achievable until the building is occupied, the above measures provide a framework for the development and implementation of a future Travel Plan for the site.

It is considered that it is appropriate that any development consent is conditioned to ensure that a Travel Plan is implemented prior to occupation of the development.

8. Summary & Conclusions

This report has been prepared to accompany a project application for a proposed development to construct a 13-storey mixed use development within Block 8 at the Central Park site. The proposed development would 178 apartments with two retail tenancies on the ground floor (135m^2).

The traffic assessment for the approved Concept Plan application estimated the entire site would generate some 493 vph. This overall development traffic included 33 vph arising from the proposed developments from Block 8. Subsequent modifications to Blocks 2 and 5 resulted in the overall development traffic increasing from 493 vph to 535 vph.

The proposed development is expected to generate approximately 38 vph during the busiest peak period. This is approximately 5 vph more than Block 8 traffic allowance in the Concept Plan traffic assessment.

For reasons stated in this report, Block 8 is expected to generate less development traffic than the estimated 38 vph.

It is also noted other recent changes to other sites within Central Park (namely Blocks 1 & 4 and the Kensington Precinct) would increase the overall development traffic by an additional 15 vph during the busiest peak period.

The combined net additional traffic would be about 20 vph. This is level of additional traffic is considered to be relatively low in comparison to the existing background traffic. In addition, the additional traffic would be spread across multiple access points. As such, the proposed development is not expected to create any noticeable traffic effects to the surrounding road network.

It is proposed to provide 88 car parking spaces to serve the proposed development. It is significantly less than the maximum LEP requirement of 140 car parking spaces. In addition, it is proposed to provide 229 bicycle parking spaces for residential tenants, one bicycle parking space for non-residential tenants plus an additional 21 visitor bicycle parking spaces. Therefore, proposed parking is satisfactory.

It is also proposed to provide six car share spaces in Block 8 basement as part of Frasers' comment to provide a total of 70 car share spaces over the entire Central Park site.

It is proposed to provide one loading bay to be shared between the proposed residential and retail uses. The loading bay would be provided with a turntable to enable vehicles to enter and exit the loading area in a forward direction.

Overall, the traffic and parking implications of the proposed development are considered to be satisfactory.

Appendix A

Car Park Architectural Layouts

LEGEND

NEW WALL

CENTRAL PARK BOUNDARY

BLOCK 8 BOUNDARY

EASEMENT BOUNDARY

MODIFIED CONCEPT PLAN ENVELOPE

NEW TREE

EXISTING TREE

SHC SHARED CAR PARKING

M MOTORBIKE

ACCESSIBLE PARKING

STORAGE /BIKE

ACCESS WAY

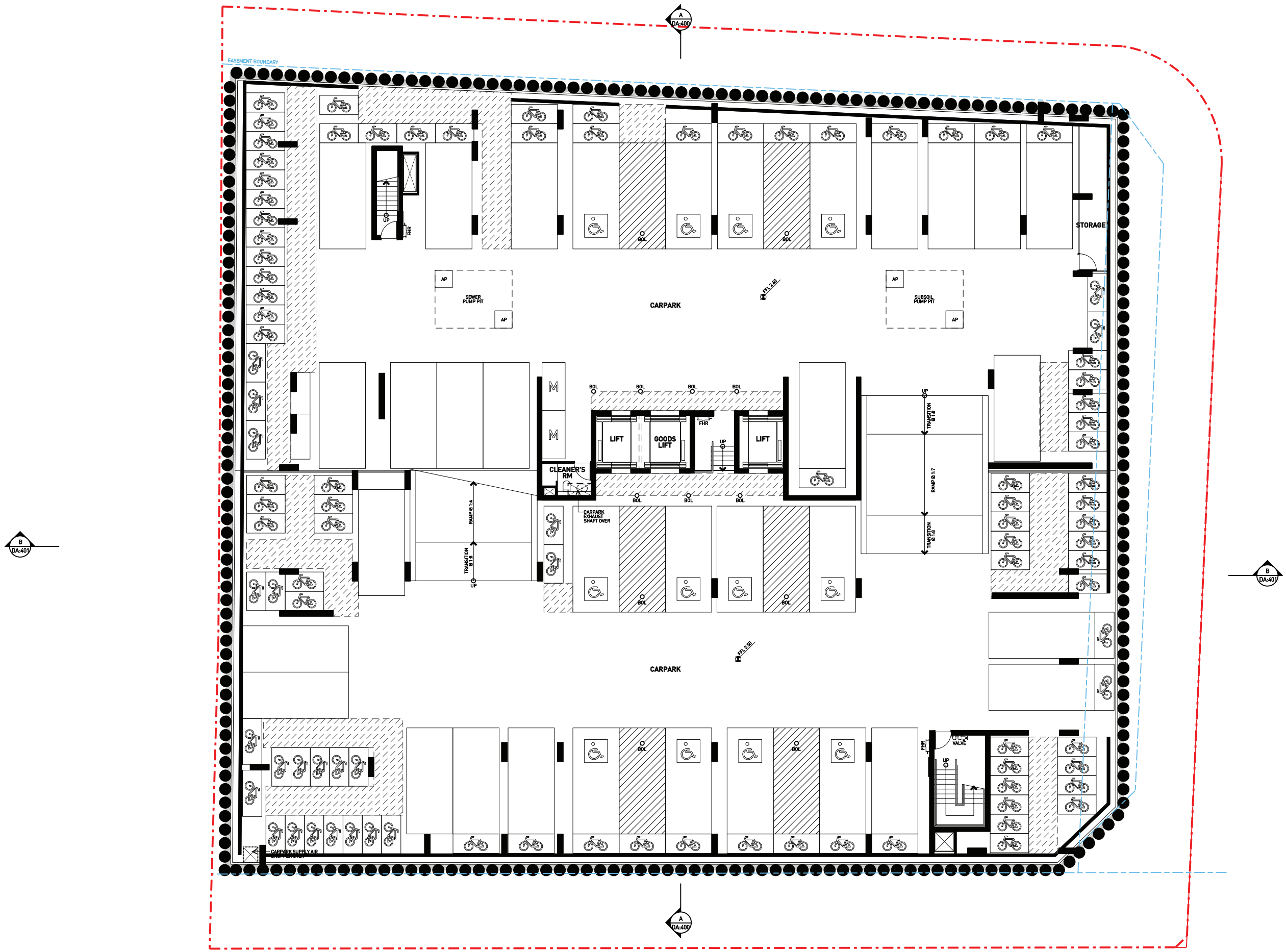
WHEELCHAIR SPACE CIRCULATION

NOTES

1 All dimensions to be verified on site.
2 Report any discrepancies or omissions to SDS prior to construction.
3 Refer to architect for ambiguous details or when clarification is required.
4 All drawings to be read in conjunction with specification.
5 All drawings to be read in conjunction with consultants' drawings.
6 All structure to structural engineer's details.

PRELIMINARY
NOT FOR CONSTRUCTION

ISSUE	REASON	DATE
D1	FOR SSDA EXHIBITION	21.01.14



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632 BOURKE STREET
SURRY HILLS NSW 2010
TEL +61 2 8332 4333
NOM ARCH WILLIAM SMART 6381

DO NOT SCALE DRAWINGS

0 | 1000 | 2500 | 5000

CLIENT: CENTRAL PARK JV No. 2

SCALE: 1:100 @ A1, 1:200 @ A3

PROJECT: 1260 CENTRAL PARK 8

DRAWN: HL

APP'D: WS

DWG TITLE: BASEMENT 3 FLOOR PLAN

DWG NO: DA:100

REV: D1

LEGEND

NEW WALL

CENTRAL PARK BOUNDARY

BLOCK 8 BOUNDARY

EASEMENT BOUNDARY

MODIFIED CONCEPT PLAN ENVELOPE

NEW TREE

EXISTING TREE

SHC SHARED CAR PARKING

M MOTORBIKE

ACCESSIBLE PARKING

STORAGE /BIKE

ACCESS WAY

WHEELCHAIR SPACE CIRCULATION

NOTES

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PRELIMINARY
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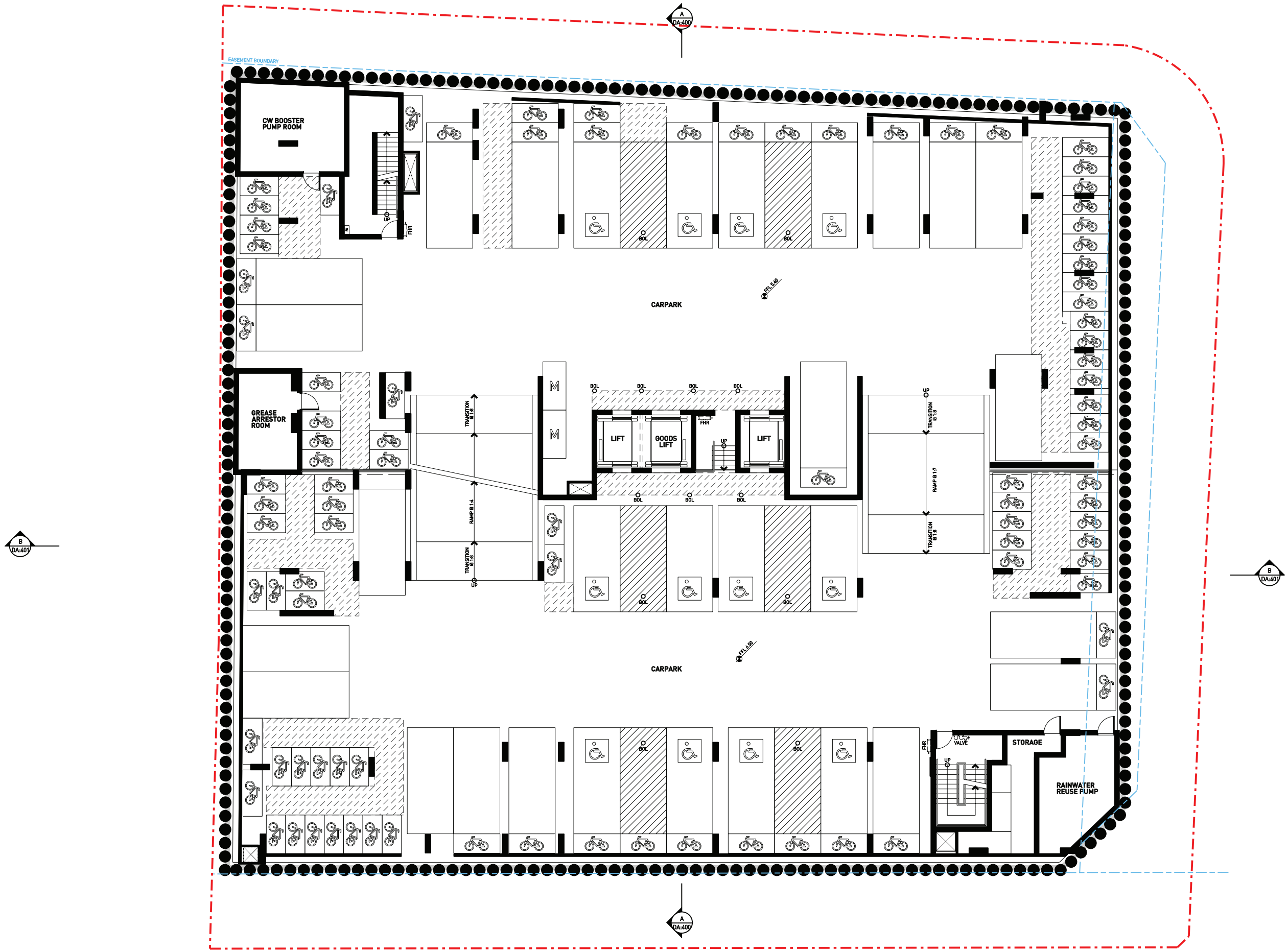
D1	FOR SSDA EXHIBITION	21.01.14



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0 | 1000 | 2500 | 5000

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SCALE: 1:100 @ A1, 1:200 @ A3
PROJECT: 1260 CENTRAL PARK 8
DRAWN: HL
APP'D: WS
DWG TITLE: BASEMENT 2 FLOOR PLAN
DWG NO: DA:101
REV: D1

LEGEND

NEW WALL

CENTRAL PARK BOUNDARY

BLOCK 8 BOUNDARY

EASEMENT BOUNDARY

MODIFIED CONCEPT PLAN ENVELOPE

NEW TREE

EXISTING TREE

SHC SHARED CAR PARKING

M MOTORBIKE

ACCESSIBLE PARKING

STORAGE /BIKE

ACCESS WAY

WHEELCHAIR SPACE CIRCULATION

NOTES

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ISSUE	REASON	DATE
D1	FOR SSDA EXHIBITION	21.01.14

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NOM ARCH WILLIAM SMART 6381

DO NOT SCALE DRAWINGS

0 | 1000 | 2500 | 5000

CLIENT	CENTRAL PARK JV No. 2	PROJECT	1260 CENTRAL PARK 8
SCALE	1:100 @ A1, 1:200 @ A3	DRAWN	HL
		APP'D	WS
DWG TITLE	BASEMENT 1 FLOOR PLAN	DWG NO	DA:102
		REV	D1

LEGEND

NEW WALL

CENTRAL PARK BOUNDARY

BLOCK B BOUNDARY

EASEMENT BOUNDARY

MODIFIED CONCEPT PLAN ENVELOPE

NEW TREE

EXISTING TREE

SHC — SHARED CAR PARKING

NOTES

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PRELIMINARY
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ISSUE	REASON	DATE
D1	FOR SSDA EXHIBITION	21.01.14

IRVING STREET

ABERCROMBIE STREET

CENTRAL PARK AVENUE [FORMERLY CARLTON STREET]

O'CONNOR STREET

PEDESTRIAN CROSSING

PUBLIC DOMAIN

BIKE

RETAIL

CARPARK ENTRY

RAMP @ 1:10

TRANSITION @ 1:8

RAMP @ 1:4

GARAGE DOOR OVER

OVERHANG

EASEMENT BOUNDARY

MOD ENVELOPE

CENTRAL PARK BOUNDARY

LOADING DOCK

LOADING BAY

MAIN GARBAGE ROOM

EGRESS ABOVE SHOWN DOTTED

FIRE CONTROL CENTRE

FRNSW BOOSTER FACILITY

STORM WATER ACCESS

SEWER OVERFLOW PIT ACCESS

GARBAGE ROOM

MAIL ROOM

LIFT

GOODS LIFT

LOBBY

RESIDENTIAL AMENITY LOUNGE/GYM

VOID OVER

RESI ENTRY

METER

GAS

HYD

ELECT

COMMS

VALVE

FHR

UP

SHC

2 BED L00.01

2 BED L00.02

2 BED L00.03

1 BED + S L00.08

2 BED 2 FLR + S L00.07

1 BED 2 FLR+S L00.06

1 BED 2 FLR+S L00.05

1 BED 2 FLR + S L00.04

B DA:401

A DA:400

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NOM ARCH WILLIAM SMART 6381

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DO NOT SCALE DRAWINGS

0 | 1000 | 2500 | 5000

CLIENT: CENTRAL PARK JV No. 2

SCALE: 1:100 @ A1, 1:200 @ A3

PROJECT: 1260 CENTRAL PARK 8

DRAWN: HL

APP'D: WS

DWG TITLE: GROUND FLOOR PLAN

DWG NO: DA:103

REV: D1

Appendix B

Travel Access Guide

Central Park Block 8 SSDA – Travel Access Guide

Transport Services and Facilities

Train

Central Railway Station, located 500 metres away from the site, is one of the largest railway station and transport interchange in Australia. It serves all Sydney suburban, intercity, country and interstate trains except for the Cumberland Line and the regional Hunter Line.

	Frequency – AM Peak		Frequency – PM Peak	
	To city	*From City*	*To city*	*From City*
Suburban Line				
Eastern Suburbs & Illawarra Line	4 min	10 min	4 min	10 min
Bankstown Line	5 - 10 min	10 - 15 min	10 - 15 min	5 - 15 min
Airport Line	3 - 6 min	6 - 10 min	6 - 10 min	3 - 6 min
Inner West & South Line	3 - 10 min	3 - 10 min	5 - 10 min	5 - 10 min
Western Line	3 - 7 min	5 - 10 min	5 - 10 min	5 min
Carlingford Line	30 - 40 min	45 - 60 min	30 - 45 min	45 min
North Shore/ Northern Line	3 - 6 min	3 - 6 min	3 - 6 min	3 - 6 min
Intercity Line				
South Coast	20 min	50 min	30 min	20 min
Southern Highlands	20 min	60 min	60 min	20 - 30 min
Blue Mountains	15 min	30 min	30 min	15 min
Central Coast & Newcastle	6 - 10 min	30 min	30 min	15 min

Bus

Route No.	Service Route	Frequency – AM Peak	Frequency – PM Peak
M10	Leichhardt to Maroubra Jn	10 min	10 min
M30	Mosman to Sydenham	10 min	10 min
352	Marrickville to Bondi	20 – 35 min	20 min
412	City to Campsie Station	20 min	15 min
413	City to Campsie Station	30 min	15 min
422	City to Kogarah	20 min	10 – 15 min
423/ L23	City to Kingsgrove	10 – 20 min	5 – 15 min
426	City to Dulwich Hill	20 min	5 – 10 min
428/ L28	City to Canterbury	20 min	5 – 10 min
431	Glebe Point to Millers Point	3 – 5 min	15 min
433	Balmain to Millers Point	10 – 15 min	15 min
436	City to Chiswick	20 min	15 min
438/ L38	City to Abbotsford	10 – 20 min	5 – 15 min
439/ L39	City to Mortlake	30 min	15 – 25 min
440	City to Rozelle	5 – 10 min	5 – 10 min
461	City to Burwood	5 – 20 min	10 – 15 min
470	City to Lilyfield	15 min	5 min
480/ 483	City to Strathfield Station	20 min	5 – 10 min

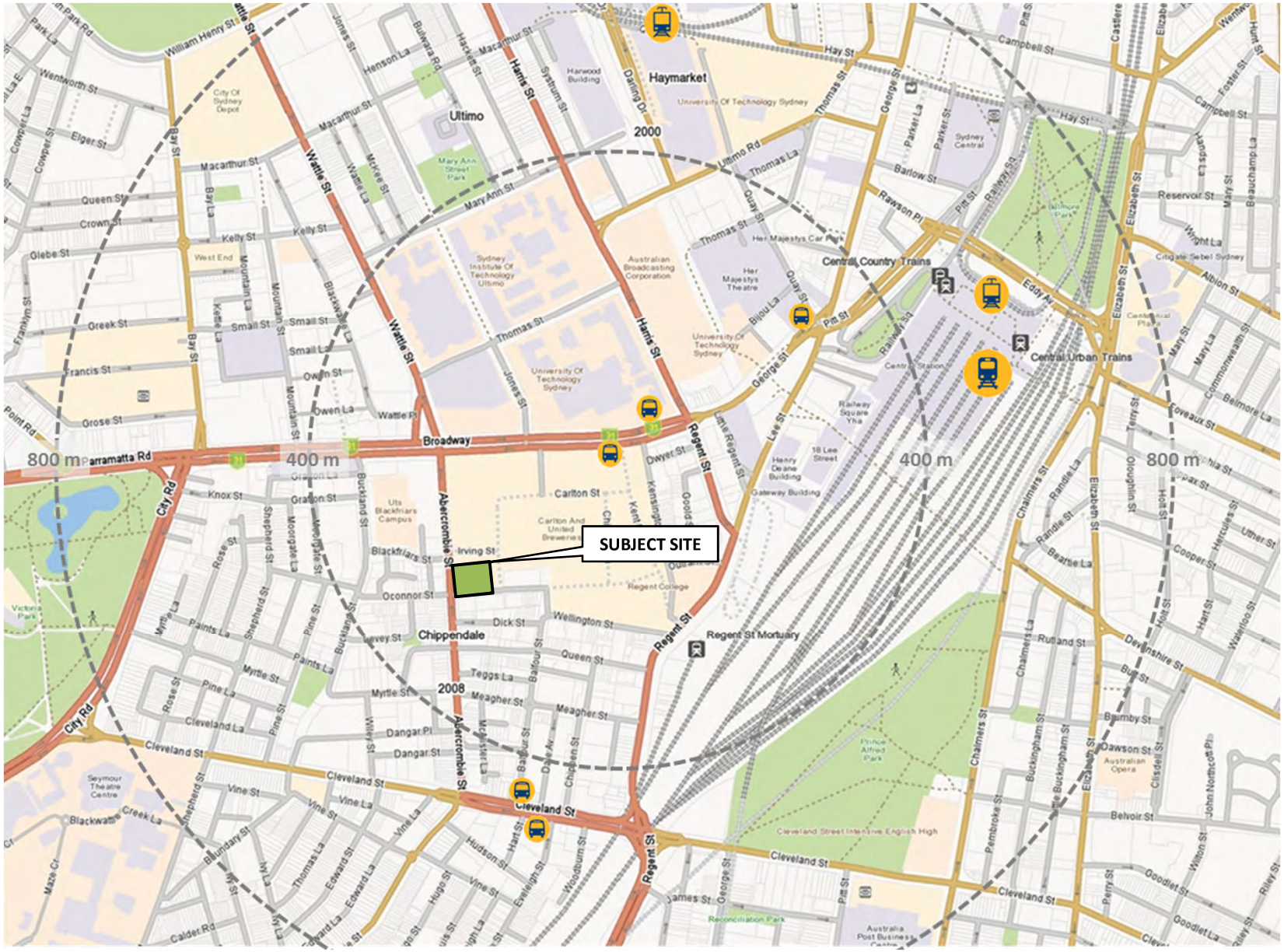
Light Rail

Light Rail operates every 10-15 minutes on day time from Central Station to Lilyfield and Central Station to The Star. Services to Lilyfield finish at 11pm and overnight service is available from Central Station to The Star for every 30 minutes

Wheelchair accessible buses operate on some routes. Contact Sydney Buses or the Transport Infoline for details.

The closet cycle routes run along Jones Street, Shepherd Street and Meagher Street. The cycle routes are connected to Sydney CBD, inner west and eastern suburbs.

Note: See attached maps of ***Existing Public Transport Nodes***, ***Existing Bus Routes*** and ***Existing Cycle Network***.



Legend

- Train Station
- Light Rail stop
- Bus stop

Melbourne 03 9851 9600
Sydney 02 8448 1800
Brisbane 07 3113 5000
Canberra 02 6243 4826
Adelaide 08 8113 5383
Gold Coast 07 5510 4814
Townsville 07 4722 2765

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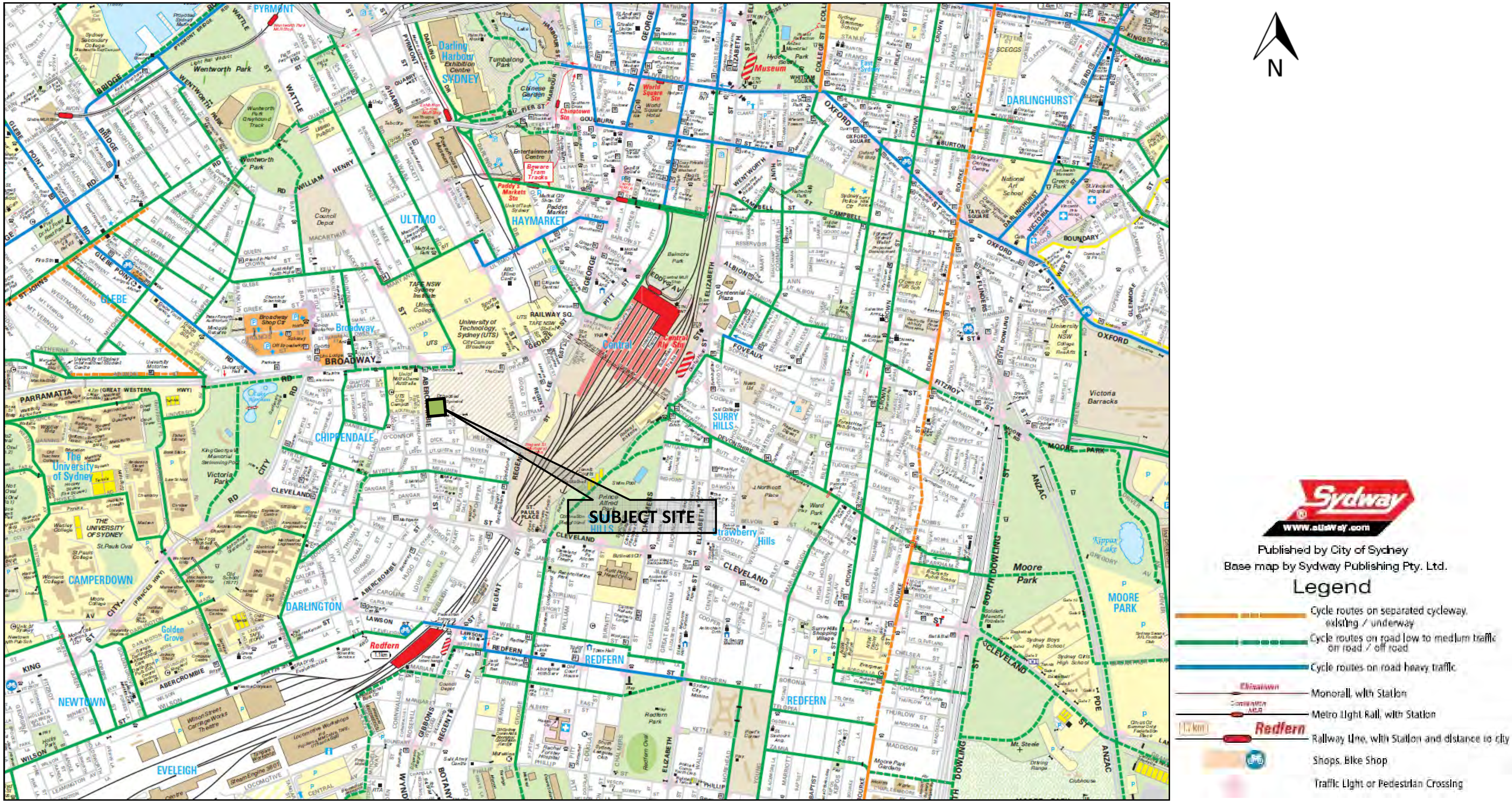
12S1395502 – CENTRAL PARK, BLOCK 8 SSDA: PROPOSED MIXED USE DEVELOPMENT
EXISTING PUBLIC TRANSPORT NODES

DATE:
2013-12-16

DRAWING NO.
12S1395502 FIG-01-01



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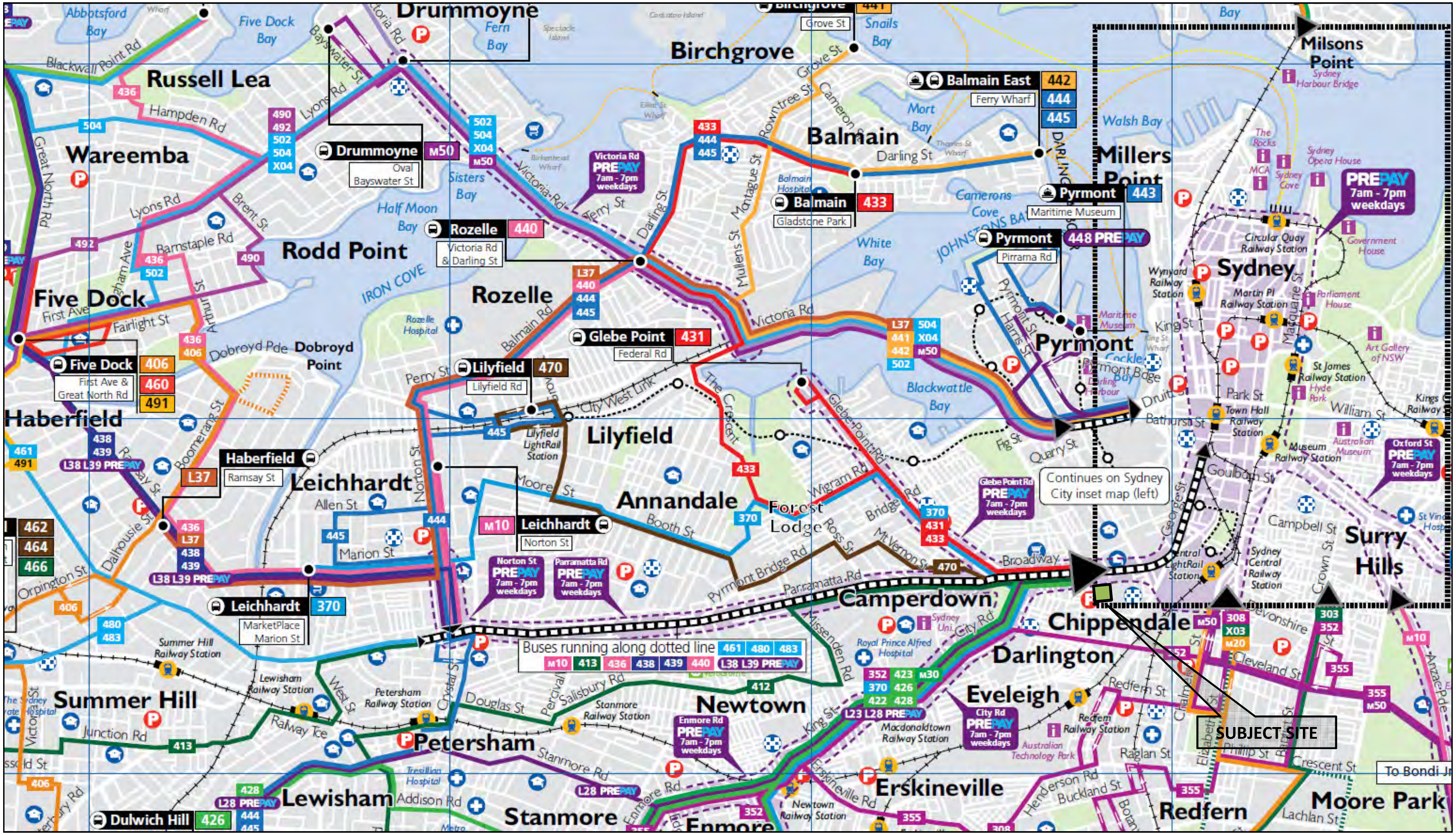
12S139502 – CENTRAL PARK, BLOCK 8 SSDA: PROPOSED MIXED USE DEVELOPMENT
EXISTING CYCLE NETWORK

DATE: 2013-12-16
DRAWING NO. 12S1395502-FIG-01-02



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EXISTING BUS ROUTES

DATE: 2013-12-16

DRAWING NO. 12S1395502-FIG-01-03

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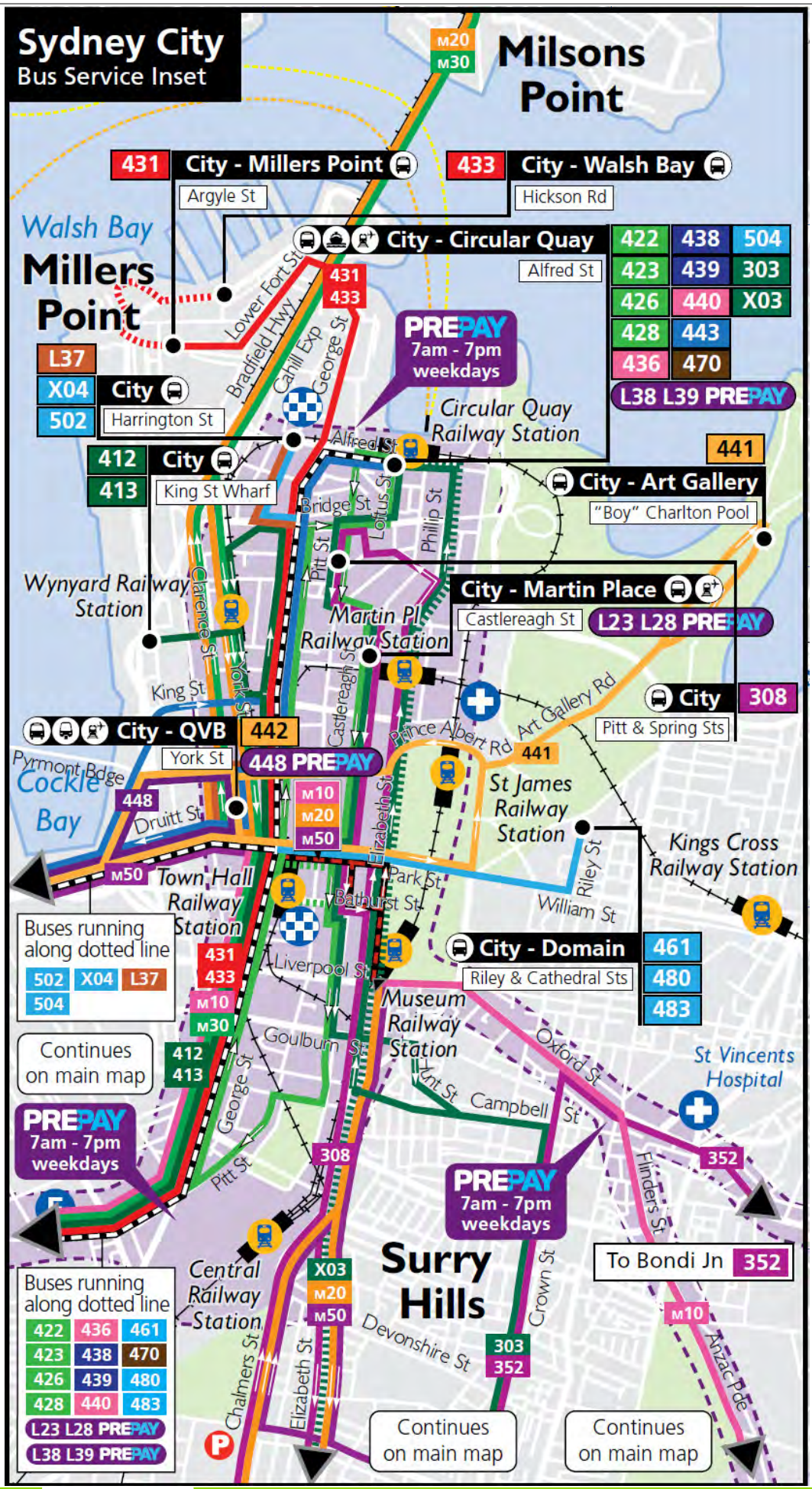

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GTA CONSULTANTS
12S1395502 – CENTRAL PARK, BLOCK 8 SSDA:
PROPOSED MIXED USE DEVELOPMENT
EXISTING BUS ROUTES – SYDNEY CBD

DATE:
2013-12-16

FIGURE NO.
12S1395502-FIG-01-04

Melbourne

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