



# State Significant Development Application - SSD 6092 Environmental Impact Statement



## Block 8, Central Park

### Mixed Use Development

Submitted to Department of Planning and Infrastructure  
On Behalf of Central Park JV No 2

January 2014 ■ 13381

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This report has been prepared by:



Emma Kirkman

23/01/2014

This report has been reviewed by:



Gordon Kirkby

23/01/2014

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*Frasers Broadway Pty Ltd*

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*Slattery Australia*

# Executive Summary

## Purpose of This Report

This Environmental Impact Statement (EIS) has been prepared for a State Significant Development Application (SSDA) for a mixed use development known as Block 8 at Central Park, Chippendale. This EIS is submitted to the Minister for Planning and Infrastructure pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD).

## Proposed Development

This EIS will accompany a SSDA for the development of a mixed use building known as Block 8 at Central Park, Chippendale. Central Park is located on the southern edge of the Sydney Central Business District (CBD) (see **Figure 1** of this EIS). The Block 8 site is located at the south western corner of the Central Park site (see **Figure 2** of this EIS).

More specifically, this SSDA seeks approval for the following components:

- A thirteen (13) storey mixed use building comprising a total of 178 residential apartments, a residents' lounge and gym at ground floor, communal roof-top terrace and ground floor retail;
- A total of 178 apartments including:
  - 43 x studio apartments
  - 63 x 1 bed apartments
  - 59 x 2 bed apartments
  - 13 x 3 bed apartments
- Total Gross Floor Area (GFA) of 14,303m<sup>2</sup>;
- 135m<sup>2</sup> of non-residential floor area at ground level with active street frontages;
- External terraces and/or loggias to all apartments; and
- Three levels of basement comprising car parking, bicycle parking, end-of-journey facilities, and services infrastructure.

It is noted that the proposal requires modification to the approved Concept Plan MP06\_0171 (as modified). The modification, pertaining to GFA reallocation, will be lodged concurrently with this SSDA with the Department of Planning and Infrastructure (DoPI).

## Planning Context

The proposed development has a total Capital Investment Value (CIV) of over \$10 million and is classified as State Significant Development (SSD) pursuant to Clause 2 Schedule 2 of the SEPP SRD.

A request to issue Director General's Requirements (DGRs) for environmental assessment of the proposed development was made on 13 August 2013. The DGRs were issued to Central Park JV No 2 on 13 September 2013. A copy of the DGRs is provided at **Appendix A**.

**Section 5.0** of the EIS considers all applicable legislation in detail. The proposal complies with all relevant planning controls.

The Block 8 site is located on land that forms part of the Central Park (formerly Carlton United Breweries and then Frasers Broadway) Concept Plan MP 06\_0171. A

modification pertaining to GFA reallocation will be lodged concurrently with this SSDA with DoPI.

### Environmental Impact

The EIS provides an assessment of the environmental impacts of the project in accordance with the DGRs and sets out the undertakings made by the applicant to manage and minimise potential impacts arising from the development (see **Section 5.0**). Key environmental assessment considerations identified include, amongst others:

- Compliance with the approved Concept Plan MP 06\_0171 (as modified) dated 5 February 2009;
- Height, bulk and scale of the proposed development within the local context and approved Concept Plan (as modified) including solar access;
- Environmental and residential amenity including minimum unit sizes, unit mix, floor to ceiling heights and storage;
- Landscape and public domain management;
- Transport and accessibility including traffic impact, provision for service vehicles and on-site car and bicycle parking;
- Implementation of ESD measures;
- Noise generation during construction and operation; and
- Drainage and flooding including Water Sensitive Urban Design (WSUD).

All identified impacts are addressed in this EIS and are capable of being ameliorated through the implementation of appropriate mitigation measures outlined in **Section 6.0**. It is noted that this SSDA is consistent with the Concept Plan (as modified), approved on 5 February 2009.

### Benefits of the Proposal

Block 8, a mixed use development located at Central Park, Chippendale, 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 CBD and surrounds.

### Conclusion

The mitigation measures are detailed in **Section 6.0** and have been prepared to inform the ongoing management of the Block 8 site throughout the construction and operational phase of the proposed development. This EIS fulfils the requirements of the EP&A Act and addresses the Director General's Requirements, demonstrating that the impacts of the proposal can be satisfactorily managed or mitigated. In light of the above, and the benefits of the proposal, we recommend that the proposed development be approved.

# Statement of Validity

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## Development Application Details

Applicant name	Central Park JV No 2
Applicant address	Suite 11, Lumiere Commercial Level 12, 101 Bathurst Street Sydney NSW 2000
Land to be developed	Lot 1 DP1142053
Proposed development	Development of a mixed use building known as Block 8 at Central Park, Chippendale

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## Prepared by

Name	Gordon Kirkby / Emma Kirkman
Qualifications	BEC Dip URP MPIA / BArch (Hons)
Address	Level 7, 77 Berry Street, North Sydney, NSW 2060
In respect of	State Significant Development Application for a mixed use development known as Block 8 at Central Park, Chippendale

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## Certification

I certify that I have prepared the content of this EIS and to the best of my knowledge:

- it is in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*;
- all available information that is relevant to the environmental assessment of the development to which the statement relates; and
- the information contained in the statement is neither false nor misleading.

Signature



Name

Gordon Kirkby



Emma Kirkman

Date

23 January 2014



## 1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Infrastructure (DoPI) in support of an application for State Significant Development (SSD) for a residential building with ground floor retail known as Block 8, Central Park.

State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) identifies development which is declared to be SSD. Under Clause 2 of Schedule 2 of the SEPP SRD, development on the 'Broadway (CUB) Site' (Central Park) with a capital investment value (CIV) of more than \$10 million is identified as SSD. Given the development of Block 8 will have a CIV of \$68,992,740 the proposal is declared to be SSD for the purposes of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This EIS has been prepared by JBA Planning on behalf of Central Park JV No 2 and is based on the Architectural Drawings provided by Smart Design Studio (see **Appendix B**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the Block 8 site, its environs and the proposed development, and provides an assessment of the proposal in terms of the matters for consideration under Section 79C(1) of the EP&A Act.

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the Requirements of the Director General of the Department for the preparation of the EIS (see **Appendix A**). In accordance with Clause 11 of the SEPP SRD, the requirements of Development Control Plans (DCPs) do not apply. However, the relevant DCPs have been considered in the design of the proposed development. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

### 1.1 Overview of Proposed Development

The proposal relates to a detailed SSDA for the development of a mixed use building known as Block 8 at Central Park, Chippendale. Central Park is located on the southern edge of the Sydney Central Business District (CBD). The Block 8 site is located at the south western corner of the Central Park site (see **Figure 2** of this EIS).

More specifically, this SSDA seeks approval for the following components:

- A thirteen (13) storey mixed use building comprising a total of 178 residential apartments, a residents' lounge and gym at ground floor, communal roof-top terrace and ground floor retail;
- A total of 178 apartments including:
  - 43 x studio apartments
  - 63 x 1 bed apartments
  - 59 x 2 bed apartments
  - 13 x 3 bed apartments
- Total Gross Floor Area (GFA) of 14,303m<sup>2</sup>;
- 135m<sup>2</sup> of non-residential floor area at ground level with active street frontages;
- External terraces and/or loggias to all apartments; and
- Three levels of basement comprising car parking, bicycle parking, end-of-journey facilities, and services infrastructure.

It is noted that the proposal requires modification to the approved Concept Plan MP06\_0171 (as modified). The modification, pertaining to GFA reallocation, is described in **Section 5.5** and will be lodged concurrently with this SSDA with DoPI.

## 1.2 Background to the Development

### 1.2.1 Concept Plan

MP06\_0171 is a Concept Plan approval applying to the Carlton United Breweries (then Frasers Broadway, now Central Park) site which permits the construction of a mixed use precinct comprising:

- 11 development blocks;
- A maximum GFA of 255,500m<sup>2</sup>, of which a minimum of 30% must be commercial floor space;
- Combined basement car parks, providing car parking for Blocks 1, 4 and 8 and Blocks 2, 5, 9 and the Kensington Precinct;
- A new public park;
- Tri-generation and re-cycle water treatment plants;
- Retention of heritage items;
- Public domain works; and
- Contributions.

In July 2008, Frasers Broadway Pty Ltd submitted an application to the Minister proposing the following modifications to the approved Concept Plan:

- Reconfiguration of the development blocks on the site;
- An increase in the amount of public domain on the site;
- Alterations to the building massing across the site;
- A 22,500m<sup>2</sup> increase in floor space across the site;
- A change in the mix of uses on the site (increase in commercial floor space and decrease in residential floor space);
- Installation of sustainable infrastructure including a tri-generation plant and a black water treatment plant; and
- Combined basements.

The modification application was approved by the Minister in February 2009. Since February 2009 there have been a total of eight (8) modifications and a further modification (Mod 9), pertaining to GFA reallocation, will be lodged concurrently with this SSDA with DoPI. The modifications to the approved Concept Plan for the Central Park site are outlined in **Table 1**.

**Table 1** – Modifications to approved Concept Plan MP06\_0171

Mod No	Description of Modification	Status
Mod 1	Correction of reference error in approval	Approved: 18 July 2007
Mod 2	Major amendment to Concept Plan (see above)	Approved: 5 February 2009
Mod 3	Amendment to timing of execution of Voluntary Planning Agreements	Approved: 16 May 2010
Mod 4	Modification to lapsing clause	Approved: 30 August 2011
Mod 5	Modification of future assessment requirement B12 'ESD and Sustainable Design'	Approved: 31 July 2012

Mod No	Description of Modification	Status
Mod 6	Modification to GFA within the Kensington Precinct; modification to Block 6 and Block 10 envelopes; and corrections to property references	Approved: 24 July 2012
Mod 7	Amendment to the allocation of GFA of Block 3 within the Kensington Precinct	Approved: 17 January 2013
Mod 8	Amendment to the allocation of GFA and the mix of residential and non-residential GFA on the site to enable the redevelopment of Block 4S for student accommodation, and the potential for Block 1 as residential if the approved commercial development proves unviable. Reconfiguration of building envelopes to facilitate the separation of Blocks 1 and 4N from Block 4S, and minor modifications to the envelopes of Blocks 1 and 4N	Approved: 23 December 2013
Mod 9	Reallocation of GFA to Block 8	Will be lodged concurrently with this SSDA. (Exhibition start date is anticipated to be 5 February 2014).

## 1.2.2 Other Applications

Other applications relating to the development of the Central Park site, and relevant to Block 8, are outlined in **Table 2**.

**Table 2** – Other applications relating to the Central Park site

Application No	Description of Application	Status
MP07_0120	Demolition and site preparation works to enable development in accordance with the approved Concept Plan	Approved: 12 March 2008
MP07_0163	Remediation / transitional works including demolition of basements and other structures, stabilisation and protection of heritage buildings, archaeological investigation and remediation of contaminated soil and groundwater	Approved: 15 August 2008
MP08_0210	Main Park and Stage 1 infrastructure services under Irving and O'Connor Streets, construction of temporary road and public domain services and permanent protection of the Ovoid Drain	Approved: 22 January 2010
MP09_0164	Stage 2 infrastructure services including power, water, gas, sewer, roads and footpaths and permanent protection of remaining existing services	Approved: 9 November 2010

In addition, a further application was made to the City of Sydney (CoS) pertaining to subdivision of the then Carlton United Breweries site. The application is described below.

### Super Lot Subdivision Application

The City of Sydney has approved an application for subdivision of the Central Park site into eight super lots. This is the initial step in preparing lots to accommodate the Main Park and various blocks generally as defined within the approved Concept Plan (as modified). The subdivision of the Central Park site will also assist some of the government agencies in the infrastructure design requirements. These lots will be further divided by a plan of subdivision providing both public and private stratum lots based upon the Development Application when approved.

### 1.3 Analysis of Alternatives

In the approved Concept Plan (as modified) the identified land uses include residential and student accommodation, as well as non-residential development. Block 8 is identified as a mixed use development located at the south western corner of the Central Park site. Block 8 will contribute to the residential mix by providing 178 apartments in an area well serviced by public transport, and in close proximity to the retail, work and education opportunities offered by the Sydney CBD and surrounds. Chippendale Green is located to the east of Block 8, providing easily accessible public open space.

Given the locational benefits of the site, and Block 8's consistency with the Concept Plan, alternatives to the provision of residential accommodation in this location have not been considered.

### 1.4 Director General's Requirements

In accordance with section 89G of the EP&A Act, the Director General of the Department issued the requirements for the preparation of the EIS to accompany Block 8, Central Park on 13 September 2013. A copy of the DGRs is provided at **Appendix A**.

The DGRs require that the EIS must include the documents listed in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation) and must meet the requirements of Schedule 2 of the Regulation, in particular the form specifications in Clause 6 and the content specifications in Clause 7. Several stakeholders were identified with whom consultation must occur during the preparation of the EIS.

**Table 3** provides a detailed summary of the individual matters listed in the DGRs and identifies where these requirements has been addressed in this report and the accompanying technical studies.

**Table 3** – Director General's Requirements

Director General Requirement	Location in Report	
	Report	Appendix
<b>General Requirements</b>		
The EIS must meet the minimum requirements in Schedule 2 of the <i>Environmental Planning and Assessment Regulation 2000</i> , specifically: - form specifications in clause 6; and - specifications in clause 7.	Pages i, ii, iii	-
<b>Key Issues</b>		
<b>Statutory and Strategic Context</b>	Report	Appendix
Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including:	-	-
EP&A Act 1979	Section 5.3.1	-
State Environmental Planning Policy (State & Regional Development) 2011	Section 5.3	-
State Environmental Planning Policy (Infrastructure) 2007	Section 5.3	-
State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004	Section 5.3	-
State Environmental Planning Policy No.55 – Remediation of Land	Section 5.3	-
State Environmental Planning Policy No.65 – Design Quality of Residential Flat Development and accompanying Residential Flat Design Code	Section 5.3	Appendix B
Sydney Local Environmental Plan 2005	Section 5.3	-

Director General Requirement	Location in Report	
Draft Metropolitan Strategy for Sydney	Section 5.2	-
Metropolitan Plan for Sydney 2036	Section 5.2	-
Draft Sydney City Sub-Regional Strategy	Section 5.2	-
Sydney 2030 (The City of Sydney Council)	Section 5.2	-
Development Near Rail Corridors and Busy Roads - Interim Guideline	Section 5.2	-
Guide to Traffic Generating Developments (RTA)	Section 5.2	-
NSW Planning Guidelines for Walking and Cycling	Section 5.2	-
<b>Compliance with the Approved Concept Plan</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall demonstrate that the proposal is consistent with the Concept Plan approval MP 06_0171 dated 5 February 2009 (as modified).	Section 5.5	Appendix B
<b>Built Form and Urban Design</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall address: – the height, bulk and scale of the proposed development within the context of the locality and the approved Concept Plan; and – design quality, with specific consideration of the overall site layout, axis, vistas and connectivity, street activation, façades, massing, setbacks, building articulation, materials, use of appropriate colours, building materials, landscaping and safer by design.	Section 3.5, Section 3.6 and Section 5.6	Appendix B, Appendix C, Appendix F and Appendix H
<b>Environmental and Residential Amenity</b>	<b>Report</b>	<b>Appendix</b>
The EIS show compliance with SEPP 65 and the Residential Flat Design Code recommendations to achieve a high level of environmental and residential amenity. In this regard, the EIS should consider the proposed accommodation, as well as surrounding residential development.	Section 5.7	Appendix B, Appendix I, Appendix J and Appendix K
<b>Landscaping and Public Domain Management</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall provide details of the public domain works and landscaping adjacent to the site, considering City of Sydney Council's requirements including the Street Tree Master Plan, Streets Design Code and draft Interim Sydney Lights Design Code.	Section 3.6 and Section 5.8	Appendix C
<b>Transport and Accessibility (Construction and Operation)</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall: – detail access arrangements at all stages of construction; – detail support of non-private vehicle travel methods such as provisions for car sharing schemes; – detail service vehicle parking arrangements that enable entry and exit in a forward direction; – provide accurate details of peak hour vehicle movements and assess the impacts of this traffic on the local road network, including intersection capacity, having regard to local planning controls; and – demonstrate appropriate provision of on-site car and bicycle parking, including bicycle parking at ground level (Note: the Department supports reduced car parking in areas well-served by public transport).	Section 5.9	Appendix M and Appendix N
<b>Ecologically Sustainable Development (ESD)</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall: – detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development; and – demonstrate that the development has been assessed against a suitably accredited rating scheme to meet industry best practice and achieve a suitable Green Star rating, consistent with the approved Concept Plan (as modified).	Section 5.10	Appendix O and Appendix P
<b>Noise</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall identify the main noise generating sources and activities at all stages of construction, and any noise sources	Section 5.11	Appendix Q

Director General Requirement	Location in Report	
during operation. The EIS shall outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.		
<b>Drainage and Flooding</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall address drainage / flooding issues associated with the development / site, including stormwater, drainage infrastructure and incorporation of Water Sensitive Urban Design measures.	Section 5.12	Appendix R
<b>Staging</b>	<b>Report</b>	<b>Appendix</b>
The EIS is to include details regarding the staging of the proposed development, in relation to the Central Park site.	Section 5.15	-
<b>Contributions</b>	<b>Report</b>	<b>Appendix</b>
The EIS shall address the contributions applicable to the development / or details of any Voluntary Planning Agreement.	Section 5.16	-
<b>Consultation</b>	<b>Report</b>	<b>Appendix</b>
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups (including the Chippendale Residents Interest Group) and affected landowners. In particular you must consult with City of Sydney Council. The EIS must describe the consultation process and the issues raised, and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided	Section 4.0	Appendix B and Appendix H  Also, all appended reports include details of any relevant consultation undertaken with authorities / stakeholders etc.

## 1.5 Project Team

An expert project team has been formed to deliver the project and includes:

Proponent	Central Park JV No 2
Development Manager	Frasers Broadway Pty Ltd
Urban Planning	JBA
Architect	Smart Design Studio
Landscape Architects	Jeppe Aagaard Andersen + Turf Design Studio
Surveyor	Degotardi, Smith and Partners
Geotech	JK Geotechnics
ESD Strategy and Facade	Surface Design Consulting
CPTED	Elton Consulting
Wind Impact and Reflectivity	Cermak Peterka Petersen
BCA	City Plan Services
Access	Morris Goding Accessibility Consulting
Electrical, Mechanical and Lift	VOS Group
Traffic	GTA Consultants
Acoustics	Acoustic Logic Consultancy
Civil Engineer	Mott MacDonald
Structure	Taylor Thomson Whitting

Water Management and WSUD	Warren Smith & Partners
Fire Services and Civil Hydraulics	Warren Smith & Partners
Waste Management	Arup Group
Construction Management	Frasers Broadway Pty Ltd
Quantity Surveyor	Slattery Australia

## 2.0 Site Analysis

### 2.1 Site Description

Central Park is located on the southern edge of the Sydney Central Business District (CBD). Central Park is in close proximity to Central Station, Broadway Shopping Centre, the University of Technology, Sydney and the University of Notre Dame Australia. A location plan is provided at **Figure 1**.

Block 8 is located at the south western corner of the Central Park site and is bound by Irving Street to the north, Central Park Avenue to the east, O'Connor Street to the south and Abercrombie Street to the west. An aerial photograph of the Block 8 site within Central Park is provided at **Figure 2** below.

The Block 8 site occupies an area of 2,437m<sup>2</sup> and is currently vacant. The site is legally described as Lot 1 DP1142053 which is owned by Central Park JV No 2.



**Figure 1** – Location plan

*Source: Foster + Partners*



Figure 2 – Aerial photograph

### 2.1.1 Topography and Landscaping

The area of Chippendale, in which Central Park is located, has an overall topography grading down to the west at about two degrees. Abercrombie Street, the western boundary of the Block 8 site, slopes slightly down to the north at less than one degree. To the north, Irving Street slopes slightly down to the west at less than one degree. To the east, Central Park Avenue slopes down to the north at about two to three degrees, and to the south, O'Connor Street slopes down to the west at about one to two degrees.

The Block 8 site has been modified by previous earthworks and remediation and the site is now relatively level. There are some existing trees on Abercrombie Street which will be retained where possible as part of the landscaping and public domain proposal.

### 2.1.2 Geotechnical Conditions

The site is underlain by the intersection of three stratigraphic units: Hawkesbury Sandstone, Ashfield Shale, and man-made fill over Quaternary sands. The sandstone will provide an excellent foundation of high bearing capacity and the earthquake site factor is favourable as it is a 'rock' site. As part of the works, fill / excavation spoil will need to be removed and disposed of in accordance with NSW waste classification legislation.

The water table occurs at relatively shallow depth throughout the site and drainage will be required below the basement floor slab. The soils / groundwater are assessed as being moderately aggressive to buried concrete and mildly aggressive to buried steel structures.

Further detail is provided in the Geotechnical Investigation Report prepared by JK Geotechnics and provided at **Appendix G**. The report concludes that the site is capable of supporting the proposed development, the subject of this DA.

### 2.1.3 Contamination and Remediation

Remediation of the Block 8 site has been completed in accordance with MP07\_0163 (Remediation) approved in August 2008. The site is now suitable for

the approved Concept Plan (as modified) uses, including the Block 8 mixed use development proposal.

However, the site's use by contractors (and the potential for contamination) needs to be reviewed prior to commencement of the works, given it is likely that the top layer (approximately 300 – 500mm) of fill will need to be removed prior to basement excavation.

#### 2.1.4 Heritage

The Brewery Yard to the north east of the site comprises a number of buildings which have been identified as heritage items. Assessment of the impact of the approved Concept Plan (as modified) on these items has been previously undertaken. Given the distance from the Brewery Yard, Block 8 was not identified as having any potential to impact on the heritage significance of these items.

Instead, Block 8 enhances the characteristics of the heritage items and adjacent Chippendale Conservation Area by mediating between the alignments of buildings of different scale and providing a large scale building with fine-grained fenestration.

#### 2.1.5 Infrastructure and Services

Decommissioning of most of the existing infrastructure on the site has been completed in accordance with MP07\_0120 (Demolition and Site Preparation) approved in March 2008. However, mains infrastructure, which runs the length of Balfour Street, has been retained in situ following completion of the demolition and site preparation works.

The site has since been serviced with potable water, electricity, sewer, gas and telecommunications, which will be augmented as necessary to accommodate the proposed development.

A Central Thermal Plant (CTP) is provided below the courtyard of the Brewery Yard Building, to the north east of the site. The CTP consists of chiller and boiler plant for the purposes of generating cooling and heating for air conditioning and domestic hot water needs for the whole of Central Park including Block 8. A recycled water plant (including sewer mining) is also provided.

#### 2.1.6 Access

##### Pedestrian and Cycling

Formalised pedestrian facilities are provided on all road frontages in the vicinity of the Central Park site and include footpaths and ramps. Block 8 will integrate with the proposed Ultimo Pedestrian Network and existing CoS Cycleway Network through the CBD and surrounds. A main pedestrian footway and cycle route (proposed City Council Route 20) will run through the middle of Central Park connecting Balfour Street with Broadway and Jones Street in the north. Signalised pedestrian crossing facilities are provided at the intersections surrounding the Central Park site.

Central Park incorporates a high number of pedestrian and cycle routes throughout, and within close proximity to Block 8. A shared pathway is located on Abercrombie Street to the west of the Block 8 site.

##### Rail and Light Rail

Central Railway Station is located approximately 700m east of the Central Park site. The station offers regular suburban and interstate services on the Sydney rail network.

Central Railway Station also provides light rail services with the Central light rail stop located to the north of the station.

### Bus

The Central Park site has excellent access to regular bus services along Broadway, as well as a connecting bus interchange on the corner of George and Lee Streets to the north east of the site.

### Vehicle

The Block 8 site is easily accessible by vehicles via Broadway to the north, Cleveland Street to the south and City Road / Princes Highway to the west. Basement car parking is provided for residents and visitors of Block 8 in accordance with the relevant planning controls.

## 2.2 Surrounding Development

### To the North

To the north of the Block 8 site is the proposed Block 4S, a 15/part 16 storey building comprising student accommodation and ground floor retail. The Block 4S proposal was approved on 23 December 2013.

The majority of student accommodation studios are oriented east west so as not to overlook the residential apartments of Block 8.

Further north of the site is the approved Block 4N, a 10 – 15 storey commercial / retail development with basement car parking and including surrounding public domain works. North of Block 4N is Broadway and the University of Technology, Sydney (UTS). UTS is currently undertaking construction, expansion and extension to the Broadway Precinct of its City Campus to enable the provision of improved education, social and sporting facilities for use by existing and future students and the local community. **Figure 3** shows development to the north.



**Figure 3** – Photomontage of Blocks 1, 4N and 4S (to the right)

*Source: Foster + Partners*

### To the East

To the east of the Block 8 site is Chippendale Green (formerly the Main Park) and to the north east, the Brewery Yard. These parks contribute to a generous hierarchy of public open spaces distributed to provide a variety of passive and

active recreational opportunities and break up the urban form. **Figure 4** shows development to the east.



**Figure 4** – The Brewery Yard and Main Park (Park Lane and One Central Park in the background)

#### To the South

To the south of the Block 8 site is O'Connor Street which provides frontage for a mix of commercial / industrial developments. **Figure 5** shows development to the south.



**Figure 5** – Commercial development along O'Connor Street

#### To the West

To the west of the Block 8 site is the mixed use, but predominantly residential suburb of Chippendale. Abercrombie Street borders the western side of the Central Park site and provides frontage to a number of terraces and higher density mixed use developments. **Figure 6** shows development to the west.



Figure 6 – Mixed use development along Abercrombie Street

### 3.0 Description of the Development

This section of the report provides a detailed description of the proposed development. A Design Report including Architectural Drawings has been prepared by Smart Design Studio and is provided at **Appendix B**. A Public Domain and Landscape Report including Landscape Drawings has been prepared by Jeppe Aagaard Andersen + Turf Design Studio and is provided at **Appendix C**.

The proposed development was the subject of a design excellence competition, undertaken in accordance with the approved Concept Plan (as modified) for the Central Park site. Smart Design Studio produced the preferred proposal which was selected from a total of three competition entries. The preferred proposal was endorsed by CoS and DoPI. Further details are provided in **Section 5.4**.

This application seeks approval for the following development:

- A thirteen (13) storey mixed use building comprising a total of 178 residential apartments, a residents' lounge and gym at ground floor, communal roof-top terrace and ground floor retail;
- A total of 178 apartments including:
  - 43 x studio apartments
  - 63 x 1 bed apartments
  - 59 x 2 bed apartments
  - 13 x 3 bed apartments
- Total Gross Floor Area (GFA) of 14,303m<sup>2</sup>;
- 135m<sup>2</sup> of non-residential floor area at ground level with active street frontages;
- External terraces and/or loggias to all apartments; and
- Three levels of basement comprising car parking, bicycle parking, end-of-journey facilities, and services infrastructure.

It is noted that the proposal requires modification to the approved Concept Plan MP06\_0171 (as modified). The modification, pertaining to GFA reallocation, is described in **Section 5.5** and will be lodged concurrently with this SSSA with DoPI.

A photomontage of the proposed development is provided at **Figure 7**.



Figure 7 – Photomontage of the proposed development

Source: *Smart Design Studio*

### 3.1 Design / Urban Design Principles

While adhering to the design principles identified within the approved Concept Plan (as modified), the concept for Block 8 is based on the following project-specific design principles:

- Borrow the urban void created by the student accommodation to the north, to extend vistas and provide solar amenity to apartments;
- Exploit the Chippendale Green address by providing uncompromised views to the east;
- Announce the Central Park location with an articulated facade of significant scale to form a gateway;
- Utilise the facade to harness the changing conditions of the sun;
- Animate the shadowed south facade by way of reflected ambient light;
- Temper harsh eastern and western light by filtering and control;
- Enhance solar access by reflecting and bouncing northern winter light into the interior of the site; and
- Create a western facade which shields the site from the busy traffic of Abecrombie Street, while developing a fine grain relating to the scale of Chippendale.

The following project-specific urban design principles have also been adopted in the concept for Block 8:

- Manipulate the building height to form an integral relationship with the scale of the Brewery Yard Building to the north east;
- Block 8, together with the Brewery Yard Building, provides urban enclosure, giving definition to Chippendale Green;

- Articulate the building facade to trace the scale of the base, window rhythm and vertical patterning of the Brewery Yard Building;
- Continue the delineation of the ground floor commercial frontage on Abecrombie Street, linking Broadway to Chippendale; and
- Stagger and undulate the vertical massing to mediate between the large and small scale adjacent developments.

The proposed development's adoption of the design and urban design principles described above is illustrated in the Design Report prepared by Smart Design Studio (provided at **Appendix B**).

## 3.2 Numerical Overview

**Table 4** below provides the key numerical information of the proposed development. It is noted that the approved Concept Plan (as modified) is the principle planning instrument applicable to the Central Park site, which includes Block 8. Where it does not provide development controls, CoS Local Environmental Plan (LEP) 2005 (which continues to apply to the Central Park site), CoS Development Control Plan (DCP) 2012 and Central Sydney DCP 1996 and have all been referred to.

The total GFA referred to in **Table 4** will be the subject of a modification to the approved Concept Plan (as modified) (as described in **Section 5.5**) and will be lodged concurrently with this SSDA with DoPI.

**Table 4** – Key numerical information

Component	Proposal
Site area	2,437m <sup>2</sup>
GFA (Total)	14,303m <sup>2</sup>
Residential GFA (Total)	14,168m <sup>2</sup>
Retail GFA (Total)	135m <sup>2</sup>
Height	
RL	RL 55.13
storeys	13
No. of apartments	178: – 43 x studio apartments – 63 x 1 bed apartments – 59 x 2 bed apartments – 13 x 3 bed apartments
Total no. of car spaces	88
Total no. of motorcycle spaces	10
Total no. of bicycle spaces	251

## 3.3 Demolition and Site Preparation

The existing structures on the Block 8 site have been demolished in accordance with MP 07\_0120 (Demolition and Site Preparation) approved in March 2008. Remediation of the site has been completed in accordance with MP07\_0163 (Remediation) approved in August 2008. The site is now vacant and level, and suitable for the approved Concept Plan (as modified) uses, including the Block 8 mixed use development proposal.

## 3.4 Infrastructure and Services

The site is serviced with potable water, electricity, sewer, gas and telecommunications, which will be augmented as necessary to accommodate the proposed development.

A CTP is provided as part of the site wide infrastructure and consists of chiller and boiler plant for the purposes of generating cooling and heating for air conditioning and domestic hot water needs for the whole of Central Park including Block 8.

A Recycled Water Plant (including sewer mining) is also provided to service the non-potable water needs of the whole of Central Park, including Block 8, such as for irrigation to landscaped areas (public domain and private planters), toilet flushing, clothes washing in apartments and general basement cleaning where required.

Further details in relation to the infrastructure requirements and provision at Block 8 are provided in the Design Report prepared by Smart Design Studio and provided at **Appendix B** and the Electrical Services Infrastructure Report prepared by VOS Group and provided at **Appendix L**.

All required service inputs (including mechanical, electrical, communications, hydraulics, vertical transport and fire services and safety) have been considered in accordance with the relevant responsible criteria and will be designed in accordance with the relevant standards and authority requirements.

## 3.5 Built Form

Block 8 is a thirteen storey building which is generally consistent with the development controls provided in the approved Concept Plan (as modified) in particular height, sun access plane and envelope, footprint and GFA.

The building typically steps down from level 13 to level 8, lessening the visual impact at street level, responding to the scale of surrounding buildings and ensuring overshadowing is minimised. Light and ventilation 'snorkels' are provided to the building perimeter, contributing to residential amenity, articulating the façade and further breaking down the overall building mass.

The façade is characterised by louvres and in elevation, the building facade reflects the scale of the base, window rhythm and vertical patterning of the Brewery Yard Building.

The main building entrance is on the east off Central Park Avenue and residents enter into a two storey volume. Moving into the lobby, a three storey void is provided, creating a spatial entry feature and is likely to include a significant art work. The lobby provides access to the communal areas to the west, in the form of a residents' lounge and gym, and to the ground floor apartments to the east and south. The lobby also provides access to the mailroom located off the residents' lounge and to the lifts which provide access to the apartments located on the upper 12 levels of the building.

The typical floor plan is defined by an 'H' shaped lobby, with the majority of apartments orientated east / west and only four apartments facing either north or south. All apartments have loggias, and as you move up through the building some apartments have landscaped terraces.

### 3.5.1 Facade

#### Louvres

The facade articulation is characterised by a louvre system of copper coloured aluminium cladding. The louvres are designed to:

- Optimise solar access;
- Reduce solar heat gain;
- Maximise available views;
- Provide filtered privacy; and
- Manage light pollution.

In particular, the louvres are designed to respond to the specific conditions of the orientation of each facade and vary in angle and depth accordingly as follows:

- East façade – louvres are angled to maximise views to Chippendale Green and the Brewery;
- West façade – louvres are angled to optimise solar access, shield apartments from the headlights of those cars traveling north, and frame views to the heritage buildings and district views to the west;
- North façade – louvres are minimised to take advantage of northern sun;
- South façade – louvres are varied in depth and angle across the face of the elevation to provide an articulated surface which animates the facade.

The angles and depths of the louvres will be further tested during detailed design development.

#### Glazing

Windows to the façade will be full height, floor to ceiling sliders or awning windows of varied dimensions. Sliders will be fitted with internal safety screens or balustrades to provide the required aperture specifications for safety. Glazed back panels together with clear glazing to windows provide a consistent treatment to the facade.

### 3.5.2 Building Height

The building height has been primarily determined by the envelope as defined in the approved Concept Plan MPO6\_0171 (as modified). The building height has also taken into consideration the potential for overshadowing, and impacts to views and vistas. While there are variations to the envelope (as discussed in **Section 5.5**) the height is generally consistent with the Concept Plan.

### 3.5.3 Gross Floor Area

The use and GFA for each level within the proposed development is set out in the architectural drawings provided at **Appendix B** and reproduced in **Table 5** below. In accordance with the approved Concept Plan (as modified), the general arrangement of the site includes retail, entry lobby and communal areas at ground level, with the upper levels occupied by residential accommodation, and a communal roof-top terrace at level 12.

The total GFA referred to in **Table 5** will be the subject of a modification to the approved Concept Plan (as modified) (as described in **Section 5.5**) and will be lodged concurrently with this SSDA with DoPI.

**Table 5** – Uses and GFA by level

Level	Uses	GFAm <sup>2</sup>
Level G	Residential and entry lobby / residents' lounge / gymnasium	653
	Retail	135
Level 01	Residential	1,303
Level 02	Residential	1,408
Level 03	Residential	1,451
Level 04	Residential	1,451
Level 05	Residential	1,451
Level 06	Residential	1,451
Level 07	Residential	1,451
Level 08	Residential	1,028
Level 09	Residential	952
Level 10	Residential	679
Level 11	Residential	665
Level 12	Residential and communal roof-top terrace	225
	<b>TOTAL</b>	<b>14,303</b>

The above GFA has been calculated as per the GFA Plans prepared by Smart Design Studio and provided at **Appendix E**.

### 3.5.4 Apartment Mix and Size

Apartment types are strategically located within the building to take advantage of the varied site amenity. Premium apartments are located on levels 8 – 12, where views are optimised and access is provided to private roof terraces.

Apartment types and layout on level 3 are replicated on levels 4 – 7, and these take advantage of mid-level district views and for those apartments facing east, views directly onto Chippendale Green. Duel key apartments are interspersed throughout levels 1 – 9.

On the ground floor the apartments facing east are 2 bedroom and those facing south are typically one bedroom, two storey apartments. The two storey apartments relate to the scale of the terrace houses opposite. All ground floor apartments enjoy a street or park address.

Overall, the apartment mix within the building offers a range of living options and affordability suited to the development's inner city location. The building comprises a total of 178 apartments distributed as follows:

- 43 x studio apartments (24%);
- 63 x 1 bed apartments (36%);
- 59 x 2 bed apartments (33%); and
- 13 x 3 bed apartments (7%).

While the mix does not comply with CoS requirements (refer Table of Compliance in **Appendix B**), the residential apartment mix responds to the existing and future high demand for one bedroom and studio apartments, in this dense inner city area, and the reduced demand for larger, family-oriented dwellings. It is also noted that while the mix is non-compliant, there is a high level of amenity afforded to each apartment as discussed in **Section 5.7**, and including apartment sizes that exceed the DCP requirements (see **Table 6**).

**Table 6** – Average apartment sizes

Apartment	GFA
Studio	44m <sup>2</sup>
1 bedroom	55m <sup>2</sup>
2 bedroom	85m <sup>2</sup>
3 bedroom	109m <sup>2</sup>

### 3.5.5 Communal Areas

The proposal comprises an internal communal area consisting of the entry lobby and residents' lounge at ground level. The entry lobby is accessed on the east side of the building off Central Park Avenue and is characterised by a three storey void with artwork, offering a potential location for social interaction. The residents' lounge adjoins the entry lobby and has a frontage to Abercrombie Street, improving amenity and outlook. A gymnasium is provided adjacent the residents' lounge, and overlooks Abercrombie Street. Residents will have exclusive use of the facility.

An external communal area, comprising a roof-top terrace, is also provided. The roof-top terrace is located to the south and landscaping is used to separate it from the private open space to the north. BBQs and integrated seating will be provided.

### 3.5.6 Retail Uses

The proposal comprises retail uses at ground level with frontage to Irving Street to the north, Abercrombie Street to the west and O'Connor Street to the south. These uses demonstrate consistency with the approved Concept Plan (as modified), providing active and non-residential uses at ground level. The retail uses are split to create two potential tenancies with access off Abercrombie Street. As shown on the Architectural Drawings (provided at **Appendix B**) a total of 135m<sup>2</sup> of retail area will be provided as part of the proposed development.

The fit out and use of the retail tenancies, including signage, will be subject to a separate Development Application to be determined by CoS Council.

### 3.5.7 Waste Room

A waste room with refuse chute is located directly adjacent to the eastern fire stair on each residential level. At ground floor a temporary waste room is provided adjacent the loading dock and is accessed via the lift. The waste room will be separated from the loading dock by a chain-link fence or similar.

Retail tenancies will have access to the main loading dock and waste room via Abercrombie and Irving Streets, and will be responsible for ensuring the management of their own waste for removal either by private waste contractor or as part of the Block 8 waste management strategy.

## 3.6 Landscaping and Public Domain

A Public Domain and Landscape Report including Landscape Drawings has been prepared by Jeppe Aagaard Andersen + Turf Design Studio and is provided at **Appendix C**. The public domain plan is provided at **Figure 8**.



**Figure 8** – Public domain plan

Source: *Jeppé Aagaard Andersen + Turf Design Studio*

The report provides details of the landscaping proposal for street level, including the public / private separation of the ground floor apartments from Central Park Avenue to the east and O’Connor Street to the south. Details of the proposal for the private terraces on levels 7 – 12 (excluding level 10) and the communal roof-top terrace are also provided. The key strategies of connectivity, access, street character, street planting and materials have been addressed.

### 3.7 Pedestrian Access and Entry

Primary pedestrian access to the site is from Central Park Avenue to the east, O’Connor Street to the south and Abercrombie Street to the north. The main entry to Block 8 is on the eastern elevation off Central Park Avenue. The entry is a double height space with views through the lobby and resident’s lounge to Abercrombie Street beyond. The main entry is shown on the elevation provided at **Figure 9**.



Figure 9 – Eastern elevation showing main pedestrian entry to Block 8

Source: Smart Design Studio

On the ground floor two retail tenancies are proposed with frontage to Irving and Abercrombie Streets and Abercrombie and O'Connor Streets. The tenancies are separated by the residents' lounge and gym. The tenancies are designed to provide direct access to passing pedestrians, and together with the lounge and gym, to provide activation to the street level of the building.

### 3.8 Bicycle Parking and Access

The proposal provides 251 spaces for bicycle parking distributed throughout basement levels 1 – 3. End-of-journey facilities are provided at basement level 1. Access to bicycle parking is available from the main building entrance off Central Park Avenue via lift to the basement levels. The provision includes 18 bicycle parking spaces for residential visitors, some of which are provided on Abercrombie Street and located to complement the landscaping and public domain proposal.

Retail bicycle parking is also provided, one space for staff and three for visitors / customers. Retail staff will have access to the end-of-journey facilities at basement level 1 including dedicated lockers via the vehicle ramp (if using bicycles) or via the fire stairs.

The basement might also be accessed via the car park entry off Irving Street. However, the gradient of the ramp is not ideal for pedestrians. Accordingly, access via this entry will be discouraged by use of signage prohibiting pedestrian access, with direction to use the fire stairs.

It is noted that the provision of bicycle parking forms part of the required storage allocation to each apartment and is discussed in **Section 5.7**.

## 3.9 Vehicle Parking and Access

The proposal provides 88 car parking spaces distributed throughout basement levels 1 – 3. The provision includes 28 accessible spaces and is in accordance with the DCP. Access to car parking is available via the car park entry off Irving Street and will be security controlled via swipe card or remote. Once in the basement car park, residents will have direct access to their apartments via lift. Ten motorcycle parking spaces are also provided throughout the basement.

### Car Share

In accordance with the approved Concept Plan (as modified) and the DCP, six car share spaces are provided at basement level 1. Users of the car share scheme may or may not be residents of Block 8. Accordingly, security provisions are proposed and include an additional security controlled roller shutter at basement level 1 to separate car share users from residents.

### 3.9.1 Loading Dock

A loading dock and waste services area for residential and retail uses is located in the northern portion of the ground floor. Access to the loading dock is off Irving Street with adequate vehicle crossings to cater for the required service, delivery and waste collection vehicles in accordance with the relevant Australian Standards. Vehicles will enter in a forward direction and a turntable is provided to allow them to exit in a forward direction also.

The loading dock proposal has been discussed with the relevant Council officers as part of the consultation process described in **Section 4.0**.

## 4.0 Consultation

### 4.1 Background

The DGRs for the proposed development require that consultation be undertaken with the relevant local, State or Commonwealth Government authorities, service providers, community groups including the Chippendale Residents Interest Group (CRIG), affected landowners and particularly CoS.

Throughout development of Central Park the proponent's approach has been to facilitate active partnerships with key stakeholders and the community. For Block 8 this has included meeting with DoPI, multiple meetings with CoS, a community consultation day with a focus on addressing the concerns of the CRIG, and consultant meetings and correspondence with relevant authorities.

### 4.2 Consultation

#### Department of Planning and Infrastructure

Prior to lodgement of this SSSDA, the proponent, architect and JBA met with DoPI to discuss the proposal for Block 8. At the meeting, the Design Competition scheme was presented to provide an overview of the proposal and this was followed by an update on the current design.

DoPI was generally supportive, noting consistency with the approved Concept Plan (as modified). However, a number of items were raised (described below) and the proponent was advised that these should be addressed in the EIS.

DoPI was advised that the proposal requires modification to the approved Concept Plan MPO6\_0171 (as modified). The modification, pertaining to GFA reallocation, is described in **Section 5.5** and will be lodged concurrently with this SSSDA with DoPI.

#### City of Sydney

As part of the design development of Block 8 three meetings have taken place with CoS. The first allowed the proponent to present the Design Competition scheme to CoS and in particular Graham Jahn. The second meeting was convened to discuss the waste management strategy, and the third to address the public domain.

The meetings were attended by the proponent, architect and JBA, and CoS representatives specialising in planning, urban design, traffic and waste. CoS was generally supportive, with Graham Jahn saying,

*'The design presents good planning and massing.'* and

*'The proposal successfully mediates between commercial and larger scale buildings, and smaller residential buildings.'*

However, the meetings resulted in a number of recommendations which have subsequently been addressed in the design and are described below.

#### Authorities

Authorities have been consulted with in relation to: services and infrastructure to ascertain the extent of provision and/or augmentation of services to the site; ESD compliance including BASIX and Green Star; and traffic generation including updated rates for high density residential developments. This, and further consultation, is described in the appended reports.

## Community

To date the community consultation process has comprised the following:

- On Thursday 10 October between 8:45am – 10:00am a briefing session took place with representatives of the Chippendale Residents Interest Group (CRIG);
- Residents were then notified of a Community Consultation Day which would include a site tour via letter box drop and through the project website;
- On Saturday 12 October between 4.00pm – 5.30pm Smart Design Studio gave the tour and facilitated an informal Q&A session to provide the community with information about Block 8 prior to lodgement; and
- Feedback forms were provided on the day and subsequently emailed to residents to complete.

The outcomes of the Community Consultation Day are summarised below. In addition to the above formal sessions, informal consultation has taken place with surrounding neighbours and has resulted in expressions of support including the following:

*'I like the plans for the building and think that this building will add to and develop the character of the area, I particularly like the composition of the building, which cleverly bridges the scale of the smaller local buildings with the tall buildings immediately to the north. I also appreciate having apartments on the ground floor overlooking the park and streets, the copper coloured louvres and how they are composed, and the way that the services and car park entrance have been located on the north side of the building.'*

## 4.3 Outcomes

**Table 7** provides a summary of the outcomes / items raised during the consultation described above, as well as identifies the proponent's response and where these items have been addressed in this report and the accompanying technical studies.

**Table 7** – Consultation outcomes

Outcome / Item Raised	Response
Department of Planning and Infrastructure	
Consistency with Concept Plan	Refer <b>Section 5.5</b> Consistency with GFA will be the subject of Modification 9 to the approved Concept Plan (as modified)
Overall GFA and residential / non-residential split	Refer <b>Section 5.5</b>
Compliance with SEPP 65	Refer <b>Section 5.7</b> and <b>Appendix B</b>
Design Competition response	Refer <b>Section 5.4</b> and <b>Appendix T</b>
Community Consultation response, particularly CRIG	Refer <b>Section 4.2</b> and <b>Appendix B</b> and <b>Appendix H</b>
Council's response	Refer <b>Section 4.2</b>
Overshadowing, particularly to the Abercrombie Street terraces and other residential buildings	Refer <b>Section 5.7.1</b> and <b>Appendix B</b>
City of Sydney	
26 August 2013	
Facade	Proposal maintains louvred façade, designed to achieve optimal solar access Façade to be generally copper coloured Refer <b>Section 3.5.1</b> and <b>Appendix B</b> and <b>Appendix F</b>
Communal facilities	Proposal includes residents' lounge and gymnasium at ground level,

Outcome / Item Raised	Response
	roof-top terrace at level 12, refer <b>Section 3.5.5</b> and <b>Appendix B</b>
Public domain	Proposal provides 2 storey under-croft space at Abercrombie Street, refer <b>Appendix B</b>
At-grade apartments	Proposal provides elevated floor levels to ground floor apartments, refer <b>Appendix B</b>
Apartment amenity	Proposal provides 2,700mm FFL – FCL in accordance with the DCP, refer <b>Appendix B</b> Provision is made for natural ventilation and daylighting to studio bedrooms, refer <b>Section 5.7</b> and <b>Appendix B</b> Proposal provides storage in accordance with minimum DCP requirements, refer <b>Section 5.7</b> and <b>Appendix B</b> Proposal provides 3 passenger lifts to ensure adequate servicing to all levels, refer <b>Appendix B</b> Proposal provides slot windows to bedrooms with minimum dimensions 900mm x 1,000mm, refer <b>Appendix B</b>
Commercial uses	Proposal provides 4,000mm FFL – FCL in accordance with the DCP, refer <b>Appendix B</b>
Planning	General arrangement plans are supported Apartment sizes and mix, including provision of accessible apartments, is generally in accordance with the DCP refer <b>Section 3.5.4</b> and <b>Section 5.7.5</b> and <b>Appendix B</b> and <b>Appendix K</b>
Parking	Car and bicycle parking is provided in accordance with the LEP and DCP, refer <b>Section 5.9.2</b> and <b>Section 5.9.3</b> and <b>Appendix M</b>
Solar access	Solar access is provided in accordance with the approved Concept Plan (as modified), refer <b>Section 5.7</b> and <b>Appendix B</b>
<b>27 September 2013</b>	
Traffic	A schedule will be prepared prior to occupation of the building detailing waste collection, commercial movements and residential use of the loading dock to minimise conflicts
Public domain	Proposal retains existing trees on Abercrombie Street and includes new trees Proposal for trees on Irving Street has been investigated and sight lines to and from the loading dock are not impacted Refer <b>Section 5.8</b> and <b>Appendix C</b>
Waste management	Plan of Management for commercial waste disposal and collection as part of residential waste storage and removal is supported, refer <b>Section 5.13</b> and <b>Appendix S</b>
Planning	General arrangement plans are supported, and final draft architectural drawings were shown at 31 October meeting, prior to lodgement
<b>31 October 2013</b>	
Public domain	Proposal for treatment of retail façades supported as contributes to street activation; alignment of footpath and nature strip on Abercrombie Street supported; bicycle parking racks adjacent planters on Abercrombie Street supported Proposal retains existing trees on Abercrombie Street as requested by Council Refer <b>Section 5.8</b> and <b>Appendix C</b>
Car share	6 car share spaces are provided at basement level and 1 space on-street, refer <b>Section 5.9.5</b> and <b>Appendix M</b>
Roller shutter	Residents will be provided with remote control access to basement level car parking to ameliorate queuing and ensure pedestrian safety
Front fences and landscaping	Proposal resolves issue of privacy and security in relation to front fences and planting to ground floor apartments, refer <b>Appendix B</b> and <b>Appendix C</b>
Communal roof-top terrace	Proposal is supported
Studio apartment layout	Provision is made for natural ventilation and daylighting to studio bedrooms, refer <b>Section 5.7</b> and <b>Appendix B</b>
<b>Community</b>	
Built form	Proposal adheres to the building controls defined by the approved Concept Plan (as modified). However, the envelope has been

Outcome / Item Raised	Response
	massaged in consideration of overshadowing, visual and view impacts and scale Refer <b>Section 5.5</b> and <b>Section 5.6</b> and <b>Appendix B</b>
Context	View analyses have been prepared in consideration of the surrounding context and street frontage as read from surrounding streets, refer <b>Appendix B</b>
Public domain	While the proposal does not include open space at ground level, Chippendale Green is to the immediate east of the site and is overlooked and easily accessible by residents and visitors of Block 8 Residents and visitors also have access to a communal roof-top terrace Refer <b>Appendix B</b>
Setback	Proposal adheres to the setbacks defined by the approved Concept Plan (as modified). However, the envelope has been massaged and stepped heights have been lowered in consideration of the street frontage as read from O'Connor Street, refer <b>Appendix B</b>
Commercial uses	Proposal includes two retail tenancies at ground level to provide active frontage to the street Proponent will select tenants in consideration of need and other retail uses within Central Park
Facade	Proposal for louvred façade to break down the overall massing and provide privacy between residents and surrounding areas is supported

## 5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposal. It addresses the matters for consideration set out in the DGRs (see **Section 1.5**). The Mitigation Measures at **Section 6.0** complement the findings.

### 5.1 Director-General's Environmental Assessment Requirements

**Table 1** in **Section 1.5** provides a summary which sets out the individual matters listed in the DGRs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

### 5.2 Compliance with Relevant Planning Policies

The proposal's consistency with the relevant strategies, policies and guidelines as set out in the DGRs is addressed in **Table 8**. Variations to, and non-compliance with, the strategies, policies and guidelines as highlighted in the table are discussed in detail in the following sections of this report.

**Table 8** – Consistency with relevant strategies, policies and guidelines

Instrument/Strategy	Comments
<b>Strategic Plans</b>	
Draft Metropolitan Strategy for Sydney	The proposed development is consistent with the Strategy in that it will: <ul style="list-style-type: none"> <li>– encourage patronage on public transport by being in close proximity to rail, light rail, bus and ferry services.; and</li> <li>– encourage alternative modes of travel by providing bicycle parking for residents, visitors and retail patrons.</li> </ul>
Metropolitan Plan for Sydney 2036	The proposed development is consistent with the Strategy in that it will: <ul style="list-style-type: none"> <li>– provide a substantial quantum of residential accommodation within walking catchments of centres with good public transport; and</li> <li>– provide a substantial quantum of residential accommodation within existing urban areas.</li> </ul>
Draft Sydney City Sub-Regional Plan	The proposed development is consistent with the Strategy in that it: <ul style="list-style-type: none"> <li>– is located within Central Park which is within the Sydney City sub-region which is nominated as a 'Global Centre'; and</li> <li>– will contribute to the achievement of specific targets relating to new jobs and new dwellings.</li> </ul>
Sydney 2030 (The City of Sydney Council)	The proposed development is consistent with the Strategy in that it: <ul style="list-style-type: none"> <li>– will achieve a 5 star Green Star rating;</li> <li>– will provide residential accommodation in support of Sydney's growing economy and population; and</li> <li>– will provide physical connections through alternative modes of transport and community connections with the overall Central Park development.</li> </ul>
Development Near Rail Corridors and Busy Roads-Interim Guideline	The proposed development is located adjacent to a road with traffic volumes greater than 40,000 vehicles (Abercrombie Street). Accordingly, a noise impact assessment has been undertaken and mitigation measures such as acoustic treatments including upgraded glazing and acoustic seals are proposed to reduce the impact of road noise on the proposed development see <b>Section 5.11</b> .
Guide to Traffic Generating Developments (RTA)	The proposed development will improve walkability and cycle access across the City through the provision of bicycle parking and end-of-journey facilities which facilitate the use of pedestrian and bicycle paths and support a reduced reliance on private vehicles.
NSW Planning Guidelines for Walking and Cycling	The proposed development is consistent with the Strategy in that it: <ul style="list-style-type: none"> <li>– will provide increased density within a site highly accessible to public transport;</li> <li>– is within walking distance of other services and amenities, including retail and employment opportunities offered by the CBD; and</li> </ul>

Instrument/Strategy	Comments
	– is in close proximity to pedestrian and cycle facilities within Central Park as proposed in the approved Concept Plan (as modified).

## 5.3 Compliance with Environmental Planning Instruments

The proposal's consistency and compliance with the relevant statutory plans and policies is addressed in **Table 9** and further detail is provided below. Variations to, and non-compliance with, the statutory plans and policies as highlighted in the table are discussed in detail in the following sections of this report.

**Table 9** – Consistency with relevant environmental planning instruments

Instrument	Comments
SEPP (State & Regional Development) 2011	Pursuant to the SEPP a project within the Broadway (CUB) Site will be SSD if it has a capital investment value (CIV) of \$10 million or more. The proposed development has a CIV of over \$10 million, and is therefore identified as SSD and considered to be development of State and/or Regional Significance. This EIS has accordingly been prepared in support of the DA.
SEPP (Infrastructure) 2007	The proposed development is not immediately adjacent to the Metro Light Rail corridor. Accordingly, the proposal does not trigger consultation with the relevant rail authority under Clause 85 of the SEPP. The proposed development comprises 75 or more dwellings and has access to a classified road / road that connects to a classified road. Accordingly, it is defined as traffic generating development under Schedule 3 of the SEPP and is to be referred to the Roads and Maritime Services (RMS). See Section 5.10.
SEPP 55 (Remediation of Land)	Clause 7 of SEPP 55 specifies that a consent authority must not consent to the carrying out of any development on land unless it has considered whether land is contaminated and if the land is contaminated, it is satisfied that the land is/can be suitable for the proposed development. Remediation works have been carried out on the site in accordance with MP 07_0163. Accordingly, the site is suitable for the proposed development.
SEPP 65 (Design Quality of Residential Flat Development)	The proposed development has taken into consideration the principles of SEPP 65 and the Residential Flat Design Code. Compliance with the SEPP and the RFDC 'Rules of Thumb' is outlined in the Compliance Tables provided at <b>Appendix B</b> and discussed below in Section 5.7.
Sydney Local Environmental Plan 2005	The approved Concept Plan (as modified) is consistent with the relevant controls in the Sydney LEP 2005. Accordingly, Block 8, which is proposed in accordance with the Concept Plan, is consistent with the LEP.
City of Sydney Development Control Plan 2012	The approved Concept Plan (as modified) is the prevailing document for the development controls applicable to the proposal. However, where the Concept Plan is silent the DCP has been referred to. In particular, compliance with energy efficiency, storage, end-of-journey facilities, bicycle parking and waste management provisions.

### 5.3.1 Environmental Planning and Assessment Act 1979

#### State Significant Development

The EP&A Act establishes a specific assessment system to consider projects classed as State Significant Development (SSD). SSD is development deemed to be of significance to the State and for example includes projects located in precincts regarded as important by the NSW Government, such as Central Park. As noted in **Table 7**, the proposed development the subject of this DA is classed as SSD.

This EIS has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed development. **Table 10** provides an assessment of the proposed development against the objects of the EP&A Act.

**Table 10** – Objects of the EP&A Act 1979

Object	Comment
5(a)(i) To encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.	The proposed development will contribute to the proper management, development and conservation of the artificial resources of the site. In particular, design features and construction methods have been outlined in the Sustainable Design Report (see <b>Appendix o</b> ) and Construction Environmental Management Plan (see <b>Appendix U</b> ). These measures will be implemented throughout the construction and operational phases of the proposal, and existing artificial resources and infrastructure will be retained where practicable.  The proposed development will promote the social and economic welfare of the community by providing an improved urban environment and will contribute to the enhancement of a key CBD location that is presently underutilised.
5(a)(ii) To encourage the promotion and co-ordination of the orderly economic use and development of land.	The proposed development involves the orderly redevelopment of a site currently underutilised in a prime CBD location.
5(a)(iii) To encourage the protection, provision and co-ordination of communication and utility services.	The proposed development will not impact on the provision or coordination of communication and/or utility services. Relevant utility providers have been consulted during the development of the proposal.
5(a)(iv) To encourage the provision of land for public purposes.	The proposed development supports the provision of a high quality public domain, in particular Chippendale Green located to the east of the proposal.
5(a)(v) To encourage the provision and co-ordination of community services and facilities.	The proposed development provides open spaces which will enable community interaction and recreational pursuits, in particular Chippendale Green.
5(a)(vi) To encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	The proposed development will take place in a highly modified and disturbed urban environment and will not impact on biodiversity values. The site is not considered to have habitat suitable for any threatened flora and fauna, and the only vegetation proposed to be removed are introduced street trees.
5(a)(vii) To encourage ecologically sustainable development.	The proposed development accords with the principles of Ecologically Sustainable Development, as set out in Schedule 2 of the EP&A Regulation 2000. This is further considered in <b>Section 5.10</b> of this EIS.
5(a)(viii) To encourage the provision and maintenance of affordable housing.	In lieu of the provision and maintenance of affordable housing The Affordable Housing Planning Agreement between the Redfern Waterloo Authority and the landowner was accepted by Deed Poll dated 29 July 2007. A payment plan was established and payments have been made in instalments over the last five years.
5(b) To promote the sharing of the responsibility for environmental planning between different levels of government in the State.	Extensive consultation has been undertaken with various levels of government and government agencies during the preparation of this proposal, and all government agencies will be afforded the opportunity for further input into the development process during the public exhibition period.
5(c) To provide increased opportunity for public involvement and participation in environmental planning and assessment.	The community consultation carried out assisted development of the proposal and is detailed in <b>Section 4</b> of this EIS. Further consultation will be carried out during design development, prior to the commencement of construction, and throughout the construction period.

## 5.4 Design Excellence

### 5.4.1 Background

In accordance with the approved Concept Plan (MP06\_0171) as modified for the former Carlton United Breweries and then Frasers Broadway site, now known as Central Park, the proponent was required to run a design excellence competition for Block 8.

The approved Concept Plan (MP06\_0171) as modified required:

#### *Schedule 4 – Modified Statement of Commitments*

*Item 5 (in part) – For these blocks three (3) Australian architectural firms will be appointed to each prepare a scheme in accordance with a design brief prepared by the Land Owner. The Land Owner will review the schemes presented and will select the most suitable to be developed as a Project Application for the site.*

Subsequently, a Project Application (now SSDA) would be prepared and submitted for approval and the submission would include a report outlining the competition process and submissions. Accordingly, a Design Excellence Competition Report has been prepared and is provided at **Appendix T**.

### 5.4.2 Competition

As part of the competition process, a design brief for Block 8 was prepared which included the requirements of the approved Concept Plan (as modified). Three Australian architectural firms were invited to take part in the competition, these being:

- Nettleton Tribe;
- Smart Design Studio; and
- Tony Caro Architecture.

The firms were given the briefing documents on 3 May 2013 and submissions were due on 7 June 2013. A judging panel was compiled and included the Hon. Lucy Turnbull, Mr Chris Johnson and Mr Guy Pahor, CEO of Frasers Property Australia and a qualified architect.

Each firm presented their submission to the panel on 25 June 2013. The submissions were also issued to DoPI and CoS for their information. In addition, advice was sought in relation to the structural compatibility and capability, services integration and cost planning.

### 5.4.3 Outcomes

The competition produced three innovative designs, each unique in their approach to the brief and their response to the immediate surrounds. The preferred proposal was that submitted by Smart Design Studio.

The preferred proposal was selected for its considered design approach and restrained architectural elegance which was seen as complementary to both the new buildings at Central Park and the adjacent heritage Brewery Yard Building. The proposal was considered as being the stand out proposal when measured across a broad range of criteria from its sensitive contextual design to well considered planning, residential amenity and overall contribution to the Central Park development.

The preferred proposal produced the highest use of the available GFA and demonstrated highly efficient floor plates. The proposal also achieved the highest number of apartments in a well-considered mix. Images and a typical floor plan of the preferred proposal are included in the Design Excellence Competition Report provided at **Appendix T**.

## 5.5 Consistency with Concept Plan

The proposal is generally consistent with the approved Concept Plan (as modified). However, it is proposed to modify the maximum GFA and a modification will be lodged concurrently with this SSDA with DoPI.

The proposal's consistency with the approved Concept Plan (as modified), and the proposed modification, is discussed below.

### Land Use

The Block 8 site is zoned B4 Mixed Use. The proposal is consistent with the objectives of the B4 zone in that:

- Retail and residential uses are located in close proximity, minimising the need for transport to access services and providing employment opportunities;
- Proposed residential uses are highly suited to the dense inner city location and improve the vitality of the area; and
- Amenity of the adjacent Chippendale Green is both protected in minimising overshadowing, and enhanced by locating residential uses adjacent to the park, improving overlooking and surveillance.

### Height

The approved Concept Plan (as modified) shows a maximum building height for Block 8 of RL 57.50 AHD. It is noted that the maximum building height does not include communication devices and architectural roof features. The proposal is consistent with the building height given it is below the maximum permissible.

### Sun Access Plane and Building Envelope

The sun access plane for the Block 8 site is defined in State Environmental Planning Policy (Major Projects) 2005. The building envelope is shown in the drawings prepared by Foster + Partners as part of the approved Concept Plan (as modified). The drawings show minor incursions on the sun access plane.

The shadow footprint of the proposal is consistent with the principles established in the approved Concept Plan (as modified). The building envelope has been generated by the sun access plane in accordance with the approved Concept Plan (as modified). While the envelope presents a minor variation to the approved envelope, it does so without creating additional overshadowing.

### Footprint

The approved Concept Plan (as modified) showed Block 8 to have a roughly 'U' shaped footprint, with a south facing slot. However, as part of the competition process, the invited firms were advised that the slot was to enable the GFA to be achieved without inefficient floor plates and to enhance cross ventilation. As the slot has no impact on shadowing etc., the firms were advised that it could be deleted / infilled.

Accordingly, Smart Design Studio deleted the south facing slot but provided a number of smaller slots to the perimeter of the building to assist in articulating the façade.

### Habitable Rooms on Northern Façade

The approved Concept Plan (as modified) shows a portion of the northern façade as restricted to non-habitable rooms only. The restriction was proposed in response to the adjacent building proposal, Block 4S, which was to comprise commercial uses. However, as a result of ongoing design development Block 4S will now comprise student accommodation. Accordingly, the restriction is no longer deemed necessary and the Block 8 proposal includes habitable rooms on the northern façade.

The design of Block 8 orientates only four apartments per level to the north. Two additional apartments (one at each end) are orientated typically east west. While

habitable rooms are located on the northern façade, residential amenity including privacy has been carefully considered and is discussed below, see **Section 5.7**.

## GFA

The approved maximum GFA for Block 8 has varied since the approved Concept Plan (as modified) as follows:

- The approved Concept Plan (as modified) shows Block 8 to have a maximum GFA of 14,000m<sup>2</sup>, with a maximum residential GFA of 13,000m<sup>2</sup>;
- The Preferred Project Report to the approved Concept Plan (as modified) shows Block 8 to have a maximum GFA of 14,500m<sup>2</sup>, with a maximum residential GFA of 13,500m<sup>2</sup>; and
- Modification 8 to the approved Concept Plan (as modified) (Mod 8), approved on 23 December 2013, shows Block 8 to have a GFA of 11,500m<sup>2</sup>, with a maximum residential GFA of 11,000m<sup>2</sup>.

The proposal the subject of this DA seeks approval of a maximum GFA of 14,303m<sup>2</sup>, with a maximum residential GFA of 14,168m<sup>2</sup>. The increase is a result of ongoing design development and reallocation of GFA across the Central Park site. However, the maximum GFA proposed reflects the approved Concept Plan (as modified) as described above. It is noted that the maximum non-residential GFA has been reduced to accommodate residential amenity in the form of a residents' lounge and gymnasium.

Accordingly, modification of the approved Concept Plan (as modified) is required. A modification to increase the maximum GFA and modify the percentage of residential vs non-residential GFA will be lodged concurrently with this SSDA with DoPI.

## Public Art

The public art strategy endorsed under the approved Concept Plan (as modified) requires the provision of numerous artworks and installations across the Central Park site.

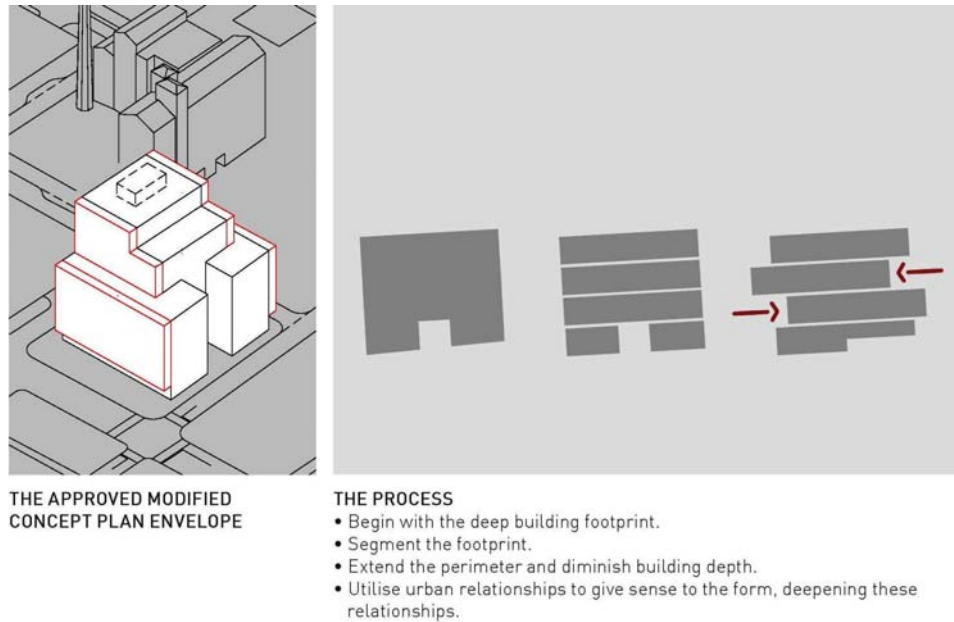
Jennifer Turpin Studio and Michelle Crawford have prepared a Public Art Strategy for the Central Park site. This strategy covers the following:

- Themes of the artworks;
- Permanent and temporary artworks;
- Digital art;
- Heritage interpretation; and
- Budgets and implementation strategies.

For Block 8, the public art will be attached to the façade facing O'Connor Street. The proposal is subject to detailed design and it is recommended that a condition of consent be imposed requiring that design of the public art proposal is to be developed in consultation with CoS and DoPI and that the art be approved prior to the issue of the final Occupation Certificate.

## 5.6 Built Form and Urban Design

The approved Concept Plan (as modified) provides a number of development controls which have informed the design of Block 8, in particular height, sun access plane and envelope, footprint and GFA. The evolution of the design is shown in the diagrams provided at **Figure 10**.



**Figure 10** – Design of Block 8

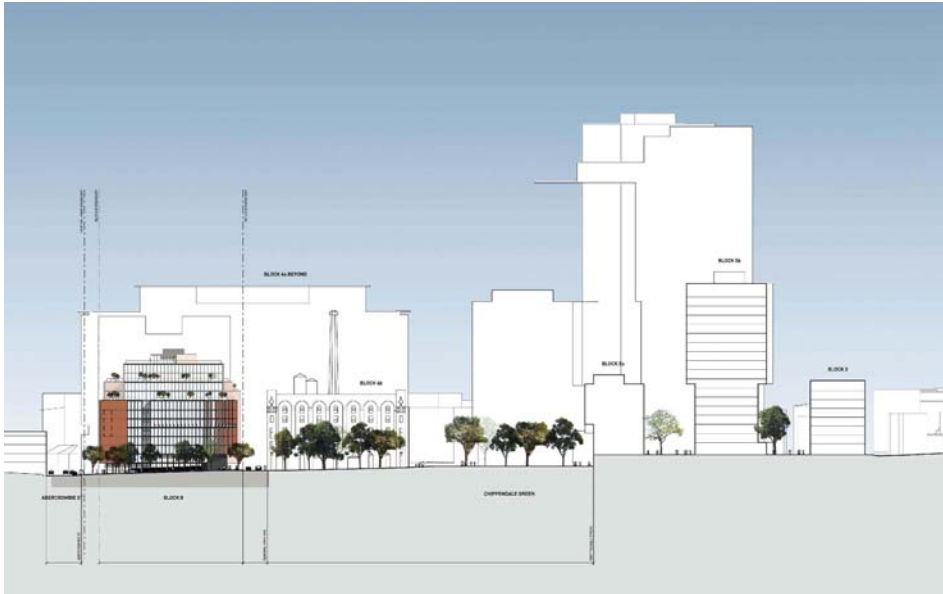
*Source: Smart Design Studio*

The approved Concept Plan (as modified) also showed Block 8 to have a roughly ‘U’ shaped footprint, with a south facing slot to O’Connor Street. The slot was intended to enable efficiency of floor plates and enhance cross ventilation. However, as part of the design excellence competition process Smart Design Studio deleted the south facing slot and in its place provided some 33 apartments over levels ground to 11 of the building. Efficiency is still able to be achieved and amenity to the south facing apartments has been carefully considered as described in **Section 5.7**.

The result is a thirteen storey building which is generally consistent with the approved Concept Plan (as modified). The building envelope is articulated to enhance residential amenity including natural ventilation and daylight, and available views.

The building typically steps down from level 13 to level 8, lessening the visual impact at street level, responding to the scale of surrounding buildings and ensuring overshadowing is minimised. In particular, the building form transitions from the large scale buildings of Central Park and UTS to the lower scale of Chippendale. Light and ventilation ‘snorkels’ are provided to the building perimeter, contributing to residential amenity, articulating the façade and further breaking down the overall building mass.

The façade is characterised by louvres which optimise solar access, reduce solar gain, maximise available views and provide filtered privacy. In elevation, the building facade reflects the scale of the base, window rhythm and vertical patterning of the Brewery Yard Building. **Figure 11** shows the southern elevation of Block 8 within the context of Central Park.



**Figure 11** – Southern elevation of Block 8 within Central Park context

*Source: Smart Design Studio*

The main building entrance is on the east off Central Park Avenue and residents enter into a two storey volume. Moving into the lobby, a three storey void is provided, creating a spatial entry feature and is likely to include a significant art work. The lobby provides access to the communal areas to the west, in the form of a residents’ lounge and gym, and to the ground floor apartments to the east and south. The lobby also provides access to the mailroom located off the residents’ lounge and to the lifts which provide access to the apartments located on the upper 12 levels of the building.

The typical floor plan is defined by an ‘H’ shaped lobby, with the majority of apartments orientated east / west and only four apartments facing either north or south. The east / west orientation enhances amenity and views and ensures limited overlooking from Block 4S to the north of the site. All apartments have loggias, and as you move up through the building some apartments have landscaped terraces.

While the approved Concept Plan (as modified) identified that habitable rooms should not be located on a portion of the northern façade, the amenity of the four north facing apartments, including overlooking from Block 4S to the north, has been carefully considered. The restriction on habitable rooms to this façade and amenity is discussed in **Section 5.7**.

**Figure 12** shows how the building will operate vertically, including the residential entry, location of the communal areas at ground and roof levels, the three storey void at ground level and basement car parking.

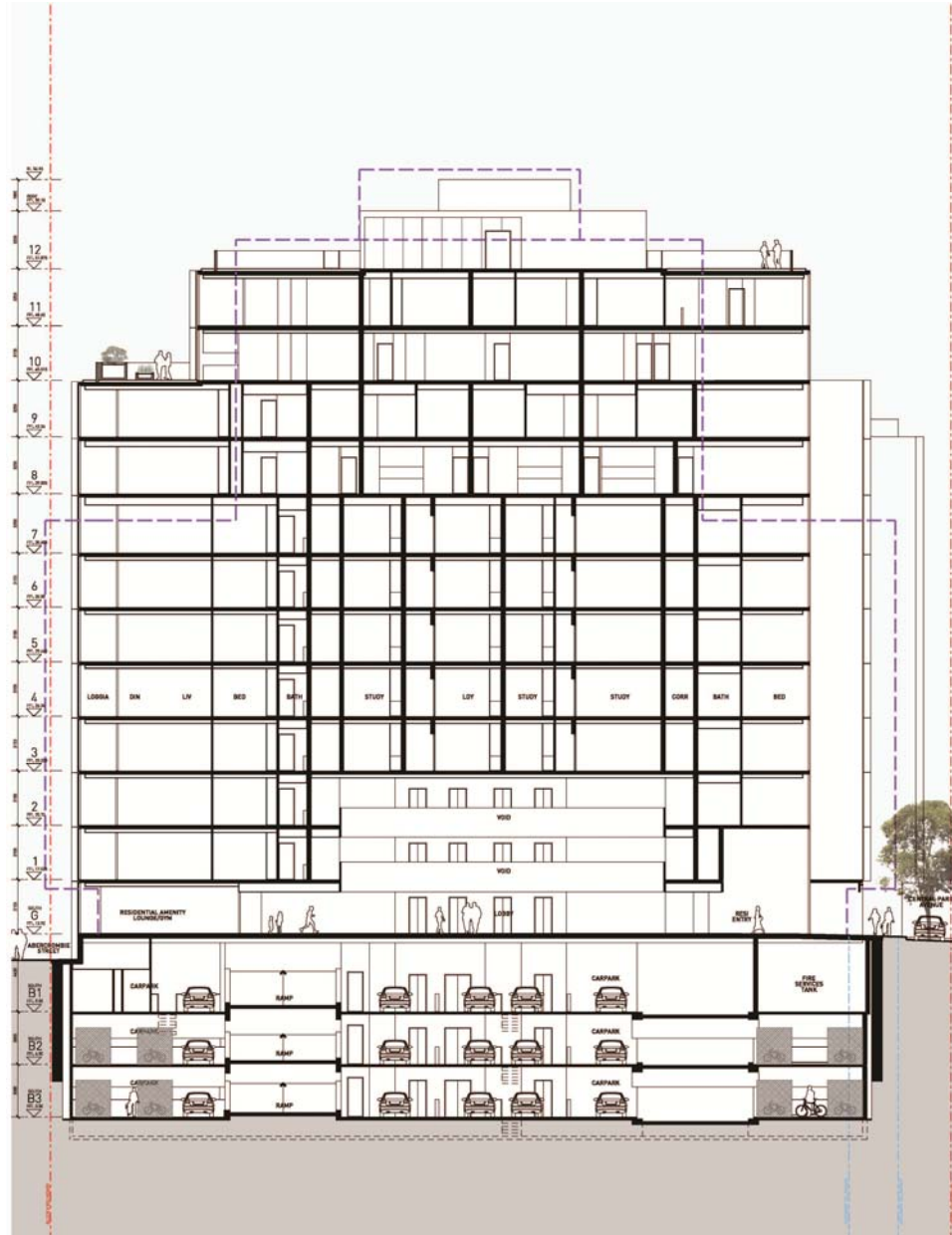


Figure 12 – Section through Block 8

Source: Smart Design Studio

The external materials, colour and facade articulation (detailed in the Design Report proved at **Appendix B**) have been designed to complement the character of the surrounding neighbourhood including the Brewery Yard to the north east of the site.

Overall, Block 8 will substantially improve the appearance of the existing site, providing a positive contribution to the Abercrombie Street and Broadway streetscape.

### 5.6.1 Crime Prevention Through Environmental Design

A Crime Prevention Through Environmental Design (CPTED) Report has been prepared by Elton Consulting and is provided at **Appendix H**. The report demonstrates the proposal's commitment to CPTED principles, consistent with the approved Concept Plan (as modified). In preparing the report Elton Consulting has undertaken consultation with the following stakeholders:

- City of Sydney Council Community Safety officer;

- NSW Police (Redfern Local Area Command and Parramatta Crime Prevention Office);
- NSW Department of Planning and Infrastructure;
- UTS Security Service;
- TAFE (Sydney Institute); and
- State Transit Authority (STA).

The CPTED design and management features of Block 8 are:

- The Block 8 public domain will be legible, easy to navigate, promote social interaction and contain lively public spaces that are filled with activities compatible with surrounding uses;
- Block 8 will be located within a safe, locatable and easily accessed pedestrian and public transport network;
- Development of Block 8 will be managed to provide a safe and amenable environment for surrounding business owners, visitors and residents throughout the construction process;
- The specific crime prevention needs of special user groups (e.g. children, younger people, older people and people living with a disability) are understood and will be addressed;
- Residents, visitors, business owners and service providers (e.g. UTS, TAFE, CoS, NSW Police, fire, ambulance, security, State Transit, taxi operators, etc.) will be supported as active partners in creating a safe environment;
- Encourage residents and visitors to work and live a healthy lifestyle and take an active role in safety and injury prevention;
- Ensure publicly accessible areas will be safe for all user groups through the use of formal surveillance and signage; and
- Block 8 will have a legible, durable and well maintained built environment that is secure, feels safe to users and deters crime.

A Community Safety Management Plan has been prepared in accordance with the approved Concept Plan (as modified) to assess the design of Block 8, including the physical (built form) and non-physical (management) elements. The plan makes a number of recommendations to meet the CPTED principles including use of appropriate street and under-awning lighting, maintaining clear internal and external sight lines, providing appropriate security to back of house / loading dock areas, use of passive and active surveillance measures i.e. CCTV, providing access control at street level and to the basement, use of durable materials, providing appropriate way-finding signage and public domain amenity and ensuring maintenance is undertaken promptly.

The report concludes that the proposed development is considered worthy of support from a safety and crime prevention perspective, subject to the recommendations above and contained within the report.

## 5.7 Environmental and Residential Amenity

The proposed development has been designed in accordance with the principles of SEPP 65 and the Residential Flat Design Code (RFDC). The proposed development meets the objectives of the SEPP and complies with the RFDC 'Rules of Thumb' as outlined in the Compliance Tables provided at **Appendix B** and detailed below.

## Design Quality

A SEPP 65 Statement addressing the ten design quality principles of the SEPP has been prepared as part of the Design Report provided at **Appendix B**. The statement also assesses the Residential Flat Design Code 'Rules of Thumb'. The proposed development has been designed in accordance with the principles and 'Rules of Thumb' to provide a high quality development, affording high levels of amenity to residents.

## Building Separation

Block 8 is adequately separated from surrounding buildings. To the north, Block 8 is separated from Block 4S by some 17.3m. To the east is Chippendale Green and to the south the buildings comprise commercial uses. To the west building separation is greater than 24m. While this is generally consistent with the recommended building separation distances in the Residential Flat Design Code 'Rules of Thumb', justification is provided below.

### Between Block 8 and Buildings to the South

The site to the south of Block 8 is currently used for industrial purposes but is zoned residential, has a 12m upper height limit under the CoS LEP 2012 and has an approved DA for a residential building. SEPP 65 recommends a 12m separation between habitable rooms up to 12m and 4 storeys. The proposed 13m separation between Block 8 and buildings to the south achieves this.

### Between Block 8 and Block 4S to the North

SEPP 65 recommends an 18m separation between habitable rooms up to 25m or 8 storeys. At the north west corner of Block 8 the building is 8 storeys and has a height of 26.5m. The separation between Block 8 and Block 4S at this corner is 17.3m measured between external walls in accordance with SEPP 65.

While the separation is marginally less than that recommended by SEPP 65, the design of Block 8 has been carefully considered. In particular, the primary orientation of the apartments on the northern façade is to the east and west, and windows which are less than 18m from Block 4S are small secondary windows. Similarly, the Block 4S floor plans show the same design approach – primary orientation is to the east and west, and windows which are less than 18m from Block 8 are small secondary windows.

Overall, the separation between Block 8 and Block 4S to the north achieves the objectives of SEPP 65, with visual and acoustic privacy and daylight access being unaffected by opposing walls being 700mm (some 4%) closer than recommended.

## Amenity

Notwithstanding the separation between Block 8 and surrounding development as described above, the proposal achieves a suitable level of residential amenity for future occupants and also existing neighbouring developments by way of the following design measures:

- Apartments located on the northern façade of Block 8 are generally oriented east / west;
- Student accommodation studios located on the northern façade of Block 4S are generally oriented east / west;
- The façade is predominately louvred which limits overlooking from residents of Block 4S to the north and users of Chippendale Green to the east;
- Acoustic privacy to neighbouring properties has been considered and integrated into the design of the external building envelope i.e. type of glazing and use of acoustic seals as per the details provided in **Appendix Q**; and
- The separation of Block 8 from surrounding buildings provides for inner city views and premium outlooks east and west.

## Open Space

Communal open space is provided in the form of a residents' lounge at ground level which adjoins the entry lobby and has a frontage to Abercrombie Street, and a roof-top terrace. The roof-top terrace is located to the south of level 12 and landscaping is used to separate it from the private open space to the north. BBQs and integrated seating will be provided.

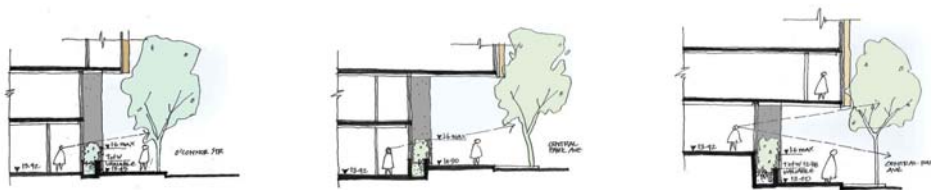
The communal open space is some 9% of the total site area. While this is short of the recommended 25 – 30% of the total site area, it is noted that Chippendale Green is to the immediate east of the site and is overlooked and easily accessible by residents and visitors of Block 8.

## Public Domain Interface

At ground level residential apartments face east and south and the interface with the street has been carefully considered to ensure a level of privacy is provided to residents as follows:

- A threshold space created through the depth of the blade column façade articulation;
- Street edge planting; and
- Varied levels of elevation above the street level.

The architectural resolution of the public / private interface of the ground level apartments is shown in the diagrams provided at **Figure 13**.



**Figure 13** – Public / private interface of ground level apartments

*Source: Smart Design Studio*

## Apartment Amenity

The amenity of apartments within Block 8 has been carefully considered as follows:

- Clear planning allows the provision of appropriate room proportions and sizes for each dwelling type (average apartment sizes are provided in **Table 6** above);
- Party and common walls are sufficient to meet BCA standards for acoustic separation and air conditioning and trickle-vents allow ventilation during warmer months without noise infiltration;
- Loggias provide private open space for each apartment and have a minimum depth of 2m. Courtyards are provided for ground floor residences;
- Barrier-free access is provided to all apartments and commercial tenancies with lift access also provided to car parking and communal areas;
- Individual apartment storage is provided in addition to that located in bedrooms and kitchens relative to the size of the apartment. Additional storage is provided in the basement levels to meet storage requirements;
- Ceiling heights are a minimum of 2.7m in all habitable rooms;
- Commercial tenancies facing Abercrombie Street have a 4m high ceiling;

- 77% of apartments are able to be cross-ventilated;
- 70% of kitchens are able to be naturally cross-ventilated;
- 49% of apartments receive a minimum of 2 hours effective sunlight on 21 June;
- Views from the apartments are optimised for each orientation, with east facing apartments enjoying park views and south and west facing apartments, excellent district views; and
- Visual privacy is maintained via appropriate building and window separation, screening via the louvred façade, and at ground level, setbacks, changes in level, planting and fence alignments.

### Storage

The proposed development provides internal storage to each apartment and Class 1 bike lockers (caged) for bicycle storage within the basement levels, providing apartments with some 6m<sup>3</sup> of storage in accordance with SEPP 65. All apartments are provided with a media / study room and this offers occupants further flexibility in using this space for storage purposes.

### Solar Access

Solar access compliance has been assessed on 21 March between 9am and 3pm and it has been found that:

- 79.2% of apartments will receive 2 hours or more sun;
- 79.8% of apartments will receive 1.5 hours or more sun; and
- 81.5% of apartments will receive 1 hour or more sun.

It is noted that as part of the design excellence competition process Smart Design Studio deleted the south facing slot and in its place provided some 33 apartments over levels ground to 11 of the building. While the residential amenity of these apartments has been carefully considered, it is noted that if these were removed and the slot reinstated then:

- 97.2% of apartments will receive 2 hours or more sun;
- 97.9% of apartments will receive 1.5 hours or more sun;
- 100% of apartments will receive 1 hours or more sun;

The approved Concept Plan (as modified) identifies a solar access target of 52.6% of apartments to receive 2 hours or more sun on 21 June between 7.30am and 4.30pm. The proposal has been assessed and it has been found that:

- 43.8% of apartments will receive 2 hours or more sun;
- 57.3% of apartments will receive 1.5 hours or more sun;
- 68.5% of apartments will receive 1 hours or more sun;

Again, if the south facing apartments were removed then:

- 53.8% of apartments will receive 2 hours or more sun;
- 70.3% of apartments will receive 1.5 hours or more sun;
- 84% of apartments will receive 1 hours or more sun;

It is noted that significant winter shadows are generated by the buildings to the north of the site. Block 4S overshadows most of the northern façade and Block 2 and its heliostat overshadows most of the eastern facade. Low height buildings

such as the Brewery Yard and buildings fronting Abercrombie Street also have a minor impact.

The overshadowing impacts and reduced solar access are a direct result of Block 8's location to the south of much taller and larger buildings. Accordingly, large areas of glass facing north, east and west maximise access to available sunlight, balanced with vertical sun-shading devices to reduce summer heat gain.

It is noted that the communal roof-top terrace will also receive a good level of solar access, as will those private terraces on levels 8 – 12, that is:

- On 21 March between 9am and 3pm 100% of the roof-top terraces on levels 8 – 12 receive 2 hours of direct sun; and
- On 21 June between 9am and 3pm 53.6% of the roof-top terraces on levels 8 – 12 receive 2 hours of direct sun.

The above solar targets are to be considered in the context of the overall merits of Block 8. The proposal balances all aspects of the design to deliver a development which enhances the public domain, mitigates bulk and building mass to provide appropriate urban relationships and provides for a high level of amenity within a range of high quality residential apartments. Accordingly, it is considered that the balance of the overall merits, as described within the Design Report (**Appendix B**) and throughout this EIS, offsets the minor solar access non-compliance.

### Natural Ventilation

All apartments within Block 8 are naturally ventilated while 77% are cross-ventilated. The louvres and light and ventilation slots or 'snorkels' articulate the facade allowing for cross-ventilation and mitigating the effects of the floor plate depth, which is determined by the approved Concept Plan (as modified) building envelope.

The majority of single-aspect apartments are provided with opening windows both to the external facade and to the 'snorkels' and upper residential levels also have access to natural ventilation via the 'snorkels'.

Trickle ventilation is included to allow ventilation during warmer months without noise infiltration. However, it is also noted that the apartments are air conditioned to ensure the comfort of occupants. The provision of natural ventilation to Block 8 is shown in **Figure 14**.



Figure 14 – Natural ventilation to apartments via external façade and ‘snorkels’

Source: Smart Design Studio

### 5.7.1 Overshadowing and Solar Access

Shadow Diagrams have been prepared by Smart Design Studio and are provided at **Appendix B**. The building envelope of Block 8 is in keeping with the principles of the approved Concept Plan (as modified) and maintains net overshadowing with marginal variations. The variations are limited to shadows cast on roofs, roads, rear elevations and in the case of building frontages are limited to incremental time frame increases. Shadow analysis and impacts are described below.

#### O’Connor Street

The shadow analysis of O’Connor Street illustrates the limited shadow impacts to the street as well as dwellings further south between the hours of 9am and 3pm that is:

- On 21 March between the hours of 9am and 3pm 64 O’Connor Street to 68 Abercrombie Street (the O’Connor Street façade) is impacted by additional shadow limited to a maximum of some 13% of the total façade area;
- On 21 June the rear facade of 8 – 12 Dick Street is impacted by additional shadow between the hours of 1pm and 3pm to a maximum of some 9% of the total façade area; and
- Any other additional shadows are limited to the roof of buildings.

#### Chippendale Green

The shadow analysis of Chippendale Green illustrates that shadow impacts are minimal between the hours of 9am to 3pm, that is:

- On 21 March additional shadow impact is experienced between 2pm and 3pm but only covers 0.6% of the total area of the park; and

- On 21 June 21 the proposed development produces no additional shadow impact to the park.

### Abercrombie Street

The shadow analysis of Abercrombie Street includes buildings 67A to 41, which are west facing residential terraces located between O'Connor Street and Levey Street. The analysis illustrates the limited extent of increased shadow to the terraces between the hours of 9am and 3pm, that is:

- On 21 March the proposed development produces no additional shadow impact; and
- On 21 June between 9.30am and 10.30am the shadow increase is limited to residences 53 – 41 Abercrombie Street and occurs for approximately seven minutes only over a maximum of some 6% of the total façade area.

Overall, the shadow diagrams, which illustrate the shadows cast by existing surrounding buildings and the proposed development on 21 March and 21 June, show that while there will be some minor additional areas of overshadowing, the shadows generally fall upon the Abercrombie Street road and existing commercial buildings on O'Connor Street. It is noted that the Abercrombie Street terraces have been diagrammatically represented and it has been found that shadows do not reach the windows of these buildings and therefore do not impact on their solar access. Importantly, the shadow impact of the proposed development on Chippendale Green is almost negligible.

### 5.7.2 Wind

A Wind Engineering and Solar Reflectivity Report has been prepared by Cermak Peterka Petersen and is provided at **Appendix I**. The report refers to the assessment undertaken for the original Central Park masterplan in which a physical model was produced for the purposes of wind tunnel analysis. It is noted that the built form of Block 8, the subject of this DA, has been further articulated however the general massing of the building, the height and street level colonades remain similar, as do the neighbouring buildings. Accordingly, the changes present a minor impact to the local wind conditions.

The assessment found that all locations around the building are acceptable for pedestrian walking activities from a comfort perspective. However, the distress criterion along Irving Street and the corner of Abercrombie and O'Connor Streets is exceeded.

To ameliorate the wind conditions at these locations a number of measures have been proposed depending on the wind mechanism causing the exceedance, which will be subject to further assessment and testing as part of ongoing design development. It is noted that the wind conditions causing distress are expected to be reduced slightly by the proposed evergreen trees.

It is further noted, that while amendments have been made to Block 4S as a result of Mod 8, the massing at the boundary, that is, to the immediate north of Block 8, is the same. Accordingly, when taking into account Block 4S, the local wind conditions in and around Block 8 remain the same.

### 5.7.3 Reflectivity

A Wind Engineering and Solar Reflectivity Report has been prepared by Cermak Peterka Petersen and is provided at **Appendix I**. The report refers to the assessment undertaken for the original Central Park masterplan in which Block 8 was analysed and no potential glare issues were identified.

It is considered that the articulated built form will produce identical conditions to the original assessment providing that the façade materials have a reflectivity coefficient of 20% or less. Accordingly, the proposal will meet the DCP requirements in relation to reflectivity.

#### 5.7.4 Building Code of Australia

##### BCA

A Building Code of Australia Assessment Report has been prepared by City Plan and is provided at **Appendix J**. The report establishes the proposal's compliance with the BCA and relevant Acts and Regulations. The proposal comprises some areas of non-compliance which can be addressed by justification against the performance requirements of the BCA, and some minor deemed-to-satisfy non-compliances which can be addressed by amendments to the plans.

The report concludes that the proposal is capable of complying with the BCA, including in relation to structure and fire safety, and that the areas of non-compliance with the deemed-to-satisfy provisions will be addressed by alternative solutions which will not significantly impact on the design of the proposed development.

#### 5.7.5 Accessibility

An Access Review has been undertaken by Morris Goding Accessibility Consulting and is provided at **Appendix K**. The review identifies that the proposal incorporates the following design elements:

- There is a level, accessible path of travel from the Central Park Avenue public footpath to the entry door of the ground floor residential lobby;
- There are sufficient gradients and cross falls on Abercrombie and O'Connor Streets for wheelchair users to access and operate the sliding and hinged entry doors to the retail tenancies;
- There is a publicly accessible unisex toilet with shower facility provided at ground floor for use by retail tenancies and also residents;
- There is an accessible unisex toilet with shower facility provided in basement level 1 as part of the end-of-journey facilities;
- Emergency fire isolated stairways are provided;
- The ground floor residential lift lobby has appropriate circulation areas for wheelchair users to access the passenger lifts and to perform a 360 degree turn;
- The use of passenger lifts ensures a continuous accessible path of travel to the entrance of each apartment;
- The waste / garbage rooms have sufficient internal dimensions to allow wheelchair users to perform a 180 degree turn;
- There are 190 apartments of which 28 are proposed to be designed as adaptable units which satisfies the minimum 15% requirement of the DCP;
- There are 86 car parking spaces distributed over basement levels 1 – 3 of which 32 are accessible which satisfies the minimum requirement of AS4299.

The review concludes that the proposed development has demonstrated an appropriate degree of accessibility in accordance with the AS1428 series, BCA, DDA Access to Premises Standards (including DDA Access Code) and the Commonwealth Disability Discrimination Act (DDA).

## 5.8 Landscaping and Public Domain Management

A Public Domain and Landscape Report including Landscape Drawings has been prepared by Jeppe Aagaard Andersen + Turf Design Studio and is provided at **Appendix C**.

The report identifies the key strategies of the public domain and landscaping proposal as being: connectivity, access, street character, street planting, planting and materials. The strategies adopt CoS requirements as defined by the DCP and expressed during the consultation meetings described in **Section 4.2**. In particular:

- The design of Abercrombie Street complies with the relevant CoS Design Code;
- The street frontages have been designed in consideration of CoS Street Tree Master Plan and Streets Design Code;
- The street zone is improved by landscaping and planting to public domain areas including the provision of soft landscaping at street level to the perimeter of the building;
- The proposed planting allows for summer shade and winter sun;
- Bicycle parking is provided on Abercrombie Street and is located to complement the public domain and landscaping proposal;
- Universal access is provided in accordance with AS 1428;
- A 3m wide deep soil landscape setback is provided as a private front garden to ground floor apartments. The gardens are located up to 1m above street level and an access gate is provided on the street-side to allow for strata maintenance; and
- Upper level terraces are landscaped with irrigated planter tubs, greening the private open space.

Overall, the public domain and landscaping proposal was well received by CoS during the consultation meetings, and the final proposal as illustrated in **Appendix C** responds to the issues raised.

## 5.9 Transport and Accessibility

A Traffic and Transport Report has been prepared by GTA Consultants and is provided at **Appendix M**.

### 5.9.1 Traffic Generation

Traffic impacts for the whole of the site were assessed and deemed satisfactory as part of the approved Concept Plan (as modified). The assessment estimated that the development would generate some 550 vehicle trips per hour (vph) and that the access intersections serving the site would have a good level of service with additional spare capacity.

It was previously estimated that Block 8 would generate 33 vph during peak periods which reflected a mixed use development of 13,500m<sup>2</sup>, including 140 apartments. The proposed development the subject of this DA comprises a GFA of 14,303m<sup>2</sup>, including 178 apartments (43 x studios, 63 x 1 beds, 59 x 2 beds and 13 x 3 beds). Accordingly, trip generation has increased.

It is noted that while the maximum permissible number of car parking spaces is 140, the proposal the subject of this DA provides only 88.

The traffic generation rates relating to residential use, as used in previous reports accompanying the approved Concept Plan (as modified), are:

- 0.20 peak hour trips for studios and 1 beds; and
- 0.24 peak hour trips for 2 and 3 beds.

As a result, the current proposal for Block 8 would generate 38 vph.

It is noted that traffic generation for the retail uses has been excluded given custom for these uses would be predominately walk-in pedestrians who live in or in the vicinity of Block 8 or other Central Park buildings.

It is noted that the above traffic generation rates are based on traffic generation surveys of similar residential developments, and the rates are approximately 17 per cent less than the RMS recommended traffic generation rates for high density residential developments. RMS has recently released an updated traffic generation rate for high density residential developments this being 0.19 trips per hour per unit. Accordingly, it is expected that Block 8 would generate development traffic less than the above estimate of 38 vph.

As noted above, the previous estimate of development traffic generated by Block 8 was 33 vph. Therefore, the current proposal will generate a net additional 5 vph at worst, and the traffic would be spread across multiple access points. The low level of additional traffic is unlikely to create any noticeable traffic effects on the surrounding road network including the access intersections serving the Central Park site. Accordingly, the traffic impact of the proposed development is acceptable.

### 5.9.2 Vehicle Parking and Access

The proposal provides 88 car parking spaces distributed throughout basement levels 1 – 3 of which 28 are accessible. The provision is less than the maximum 140 spaces permissible under the LEP and DCP therefore complies. The provision is also in accordance with the approved Concept Plan (as modified) which stipulates a minimum parking provision for the entire site of either the LEP requirements or 2,000 spaces. Ten motorcycle parking spaces are also provided throughout the basement.

Access to car parking is available via the car park entry off Irving Street and will be security controlled via swipe card or remote. The three basement levels are configured as split level accessed via a ramp at either end. The car park and associated elements have been designed in accordance with the relevant Australian Standards while providing sufficient car parking spaces to satisfy the requirements of the LEP.

### 5.9.3 Bicycle Parking and Access

The proposal provides 251 spaces for bicycle parking distributed throughout basement levels 1 – 3 in accordance with the DCP. End-of-journey facilities are provided at basement level 1 and include lockers for retail staff, in accordance with the DCP. The provision includes 18 bicycle parking spaces for residential visitors, some of which are provided on Abercrombie Street and located to complement the landscaping and public domain proposal.

Retail bicycle parking is also provided, one space for staff and three for visitors / customers. Retail staff will have access to the end-of-journey facilities at basement level 1 including dedicated lockers via the vehicle ramp (if using bicycles) or via the fire stairs.

Access to bicycle parking is available from the main building entrance off Central Park Avenue via lift to the basement levels. The basement might also be accessed via the car park entry off Irving Street.

#### 5.9.4 Loading and Deliveries

A loading dock and waste services area for residential and retail uses is located in the northern portion of the ground floor. Access to the loading dock is off Irving Street with adequate vehicle crossings to cater for the required service, delivery and waste collection vehicles in accordance with the relevant Australian Standard. Vehicles will enter in a forward direction and a turntable is provided to allow them to exit in a forward direction also.

The loading dock proposal has been discussed with the relevant Council officers as part of the consultation process described in **Section 4.0**.

Waste collection will be conducted from the loading dock in accordance with the Waste Management Statement provided at **Appendix S** and described in **Section 5.13**.

#### 5.9.5 Alternative Modes of Transport

##### Public Transport

The site has excellent access to public transport, being well served by regular bus services along Broadway, as well as a connecting bus interchange on the corner of George and Lee Streets to the north east of the site. Central Railway Station is located approximately 700m east of the site and offers regular suburban and interstate services on the Sydney rail network. The station also provides light rail services with the Central light rail stop located to the north of the station.

While it is expected that residents, visitors and retail staff would make use of the existing available public transport services, given the type and frequency of services, it is not expected that further augmentation would be required. Further, any improvement to the services would be a matter for consideration by Transport for NSW as part of its long term strategic planning and implementation process.

##### Walking and Cycling

The site is very well situated in terms of provision for walking and cycling with 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 which continues into the residential streets to the south and west of the site as well as across Broadway into the area north of the site.

There is an existing on-road cycle path which, along Broadway, is provided as an off-road shared pedestrian / cycle path. A combination of other on- 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.

It is expected that the development will attract some additional walking and cycling trips which will necessitate augmentation of the network. Pedestrian crossing facilities will be provided across the main roads surrounding the site and pathways will be provided on both sides of all internal streets within the site. A shared pedestrian / cycleway link to Wellington Street will be provided through Chippendale Green connecting to Chippendale Way. A raised pedestrian threshold is also proposed across O'Connor Street, adjacent to Chippendale Green, at the centre of the site.

The provision of bicycle facilities throughout the site accounts for the external linkages to existing and proposed bicycle routes as part of CoS Bicycle Plan. Recreational cyclists will utilise the shared links to access Central Park Avenue before making their way to Broadway and non-recreational cyclists will utilise the sign posted cycle route through the site.

The result will be a permeable pedestrian / cycle network through the Central Park site which will be fully accessible to locals and those traversing the site, and will enhance existing pedestrian / cycle accessibility between Chippendale and the public transport node represented by Central Station.

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

### Car Share

In accordance with the approved Concept Plan (as modified) and the DCP, six car share spaces are provided at basement level 1. Users of the car share scheme may or may not be residents of Block 8. Accordingly, security provisions are proposed and include an additional security controlled roller shutter at basement level 1 to separate car share users from residents.

### Green Travel Plan

A Green Travel Plan (GTP) is a package of measures aimed at promoting sustainable travel and reducing reliance on private vehicles, to ensure that the transport infrastructure, services and policies both within and external to the site are tailored to the users and coordinated to achieve the most sustainable outcome possible.

The GTP might include:

- Compliance with stringent parking controls applicable to the site;
- Creation of street networks and cycle ways, footpaths and links to encourage cycling and walking;
- A Travel Access Guide provided to each new occupant detailing public transport access to the site, and providing frequency of services and maps;
- Public transport information boards making residents and visitors more aware of the available alternative transport options;
- Provision of free weekly / quarterly public transport tickets (at initial occupation) to encourage public transport use from day one;
- Provision of high quality telecommunication points providing residents with the opportunity to work from home, reducing the need to travel;
- Provision of resident and visitor bicycle parking;
- Provision of a newsletter 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 share scheme.

### 5.9.6 Construction Traffic

A Construction Traffic Management Plan (CTMP) has been prepared by GTA Consultants and is provided at **Appendix N**. Details in relation to construction traffic are provided in **Section 5.14**.

## 5.10 Ecologically Sustainable Development

As detailed in this EIS, the mixed use development is designed in accordance with the principles of ecologically sustainable development as defined in clause 7(4) of Schedule 2 of *the Environmental Planning and Assessment Regulation 2000*. The proposed development:

- Does not pose threats of serious or irreversible environmental damage, and measures to prevent environmental degradation will be implemented throughout construction as per the 'Precautionary Principle';
- Ensures that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations by creating a vibrant mixed use environment, maximising the facilities of a well-resourced asset, and ensuring no damage to the environment during construction and operation, as per the 'Intergenerational Principle';
- Has considered the conservation of biological diversity and ecological integrity in its design as per the 'Biodiversity Principle'; and
- Is designed to be energy and water efficient to reduce lifetime environmental impacts and running costs as per the 'Valuation Principle'.

### 5.10.1 ESD Measures

A Sustainable Design Report has been prepared by Surface Design and is provided at **Appendix O**. In accordance with the commitments made as part of the approved Concept Plan (as modified), the proposed development aims to meet appropriate environmental benchmark standards for multi-residential developments, and has been designed to demonstrate consistency with industry best practice, specifically to achieve a 5 star Green Star rating. The proposed development is part of the Central Park site which incorporates a precinct and centralised plant approach thereby improving the efficiency and environmental performance of the proposal.

The ESD initiatives that will be implemented as part of Block 8 include:

- The building fabric design will meet thermal comfort and energy consumption requirements of BASIX and the BCA;
- Materials will be selected for their durability, embodied energy, renewable sources content, ease of manufacturing, ability to be recycled / reused / reconditioned, maintenance, local availability, VOC content, emission production, affordability and toxicity;
- Apartments and lobby spaces will operate as a mixed mode, with the building fabric comprised of operable elements and loggias to facilitate natural ventilation;
- A central heating and cooling system will be provided with connection to the site CTP providing chilled and hot water to the building;
- A centralised hot water system will be installed and will be serviced by the CTP;
- Common area ventilation systems will include variable speed modes where appropriate;
- All water fixtures will be water efficient, low flow and meet minimum targets;
- Internal light fittings specifications will be efficient and limited to fluorescent and LED fittings where appropriate;
- All external lighting, except where required for security reasons, will be solar powered where appropriate;

- Metering will be provided throughout the building and central services for all major building plant and equipment, as well as in apartments; and
- Personal vehicle usage will be discouraged by provision for motorbikes, bicycles, car share schemes, access to public transport networks, and proximity to retail and related amenities.

### BASIX and BCA Compliance

BASIX sets sustainability targets for water and energy as well as minimum performance levels for the thermal comfort of the building. The proposed development will target a minimum 20% in energy improvement in greenhouse gas emissions compared to the NSW benchmark of 3,292kg of CO<sub>2</sub> per person per year. The following items are to be implemented to reach the energy reduction target:

- High performance building fabric which includes the adoption of double glazing with performance coatings for all loggia spaces and performance laminates to all elevations;
- Detailing and specification of appropriate insulation to all exposed floors, roofs and external walls;
- Final construction details are subject to detailed NatHERS modelling assessments;
- Use of efficient lighting fixtures to apartments and common areas. Typically apartment lighting will be limited to LED and fluorescent fittings only. Common plant areas will be fluorescent fittings only, and metal halide fittings will be limited to car park entry points only. All common residential areas will be either LED or fluorescent fittings only;
- Lighting operation to common areas will be fitted with time-clock controls, motion sensors or timer settings to improve energy efficiency;
- Basement car park ventilation systems will include carbon monoxide monitors with variable speed fans to limit operation when not required;
- Installation of energy efficient appliances; and
- Specification of minimum R0.30 insulation to all hydraulic hot water pipework.

The proposed development will target a reduction of greater than 40% in potable water consumption based on the NSW benchmark of 90, 340litres of water per person per year. The following items are to be implemented to meet the water reduction target:

- Site rainwater collection and distribution within the building to serve toilet flushing and site landscaping;
- Use of central services systems;
- Specification and implementation of water efficient fixtures and appliances; and
- Selected planted or indigenous and drought-tolerant or low water species.

### Retail

The building fabric constructions are to be designed to meet the minimum National Construction Code (NCC) Series Section J Energy Efficiency 2013 provisions. The main construction to the retail areas includes aluminium shopfront systems with insulated glazed spandrel panels. A minimum R2.80 insulation is to be provided to the external walls and R3.20 to the roof in accordance with NCC provisions. Floor insulation is to be provided between car park and retail areas. Glazing systems are to meet the minimum NCC Energy Efficiency provisions of Part J2.

Further details in relation to the retail building fabric and its compliance with Section J of the BCA are provided in the Building Fabric Report prepared by Surface Design and provided at **Appendix F**).

Overall, the proposed development meets the BASIX requirements. A BASIX Certificate has been produced and it is noted that there are nine apartments that require minor modifications to pass the NatHERS assessment. This will be undertaken as part of ongoing design development prior to the commencement of the works.

## Green Star

Green Star is a voluntary environmental rating system for assessing different building types against environmental design targets. Block 8 at Central Park is a mixed use development targeting a Certified 5 star rating under the Multi Unit Residential v1 Design tool with the Green Building Council of Australia (GBCA).

The project has been registered (registration no. 1683) and is expected to achieve the formal rating within the first twelve months of the construction stage. To achieve a 5 star Green Star rating, the project must achieve more than 60 weighted points across all categories – management, indoor environmental quality, energy, transport, water, materials, land use, emissions and innovation – while meeting the minimum environmental conditional requirements. A full list of targeted Green Star initiatives for each credit and category in relation to Block 8 is provided at **Appendix O**.

## 5.11 Acoustic Impacts

A Noise Impact Assessment has been prepared by Acoustic Logic and is provided at **Appendix Q**. The assessment considers the external noise impact and recommends acoustic treatments to ensure that internal noise levels comply with statutory requirements, as well as identifies potential noise sources generated by the site and determines noise emission goals to meet the acoustic requirements of the NSW EPA Industrial Noise Policy. Details in relation to the noise impact during construction of the proposed development are provided in **Section 5.15**.

Traffic noise (particularly from Abercrombie Street) is assessed as being the most noise impacting activity, given Block 8's inner city location, while noise from mechanical plant and equipment (including air conditioners) is likely to be generated by the development itself.

The assessment recommends the glazing construction specification shown in **Table 11** to adequately manage traffic noise and ensure adequate internal amenity.

**Table 11** – Glazing construction for Block 8

Façade	Level	Room	Glazing	Acoustic Seals
Abercrombie Street	All Levels	Living Areas	10.38mm laminated	Yes
		Bedrooms	10.38mm laminated	Yes
North and South Facades	All Levels	Living Areas	6.38mm laminated	Yes
		Bedrooms	10.38mm laminated	Yes
East Façade	All Levels	Living Areas	6.38mm laminated	Yes
		Bedrooms	6.38mm laminated	Yes

Noise intrusion from traffic associated with surrounding roads including Broadway and Abercrombie Street will comply with the relevant standards provided the recommend façade treatments are adopted.

Potential noise generated by mechanical plant and equipment has also been assessed against the City of Sydney Standard Conditions and NSW EPA Industrial Noise Policy, with consideration of the nearest potentially affected noise receivers, these being:

- Residential properties on Abercrombie Street to the west of the site;
- Future student accommodation, Block 4S to the north of the site; and
- Existing residential receivers on O'Connor Street to the south of the site.

While mechanical plant and equipment has not yet been selected it is anticipated that all plant can be satisfactorily attenuated to levels complying with noise emission criteria through appropriate location and (if necessary) standard acoustic treatments such as noise screens, enclosures and in-duct treatments (silencers / lined ducting) or similar. It is also noted that the requirement for mechanical plant and equipment within Block 8 is largely reduced due to it being centralised, such as within the CTP. Accordingly, potential noise impact is further reduced.

## 5.12 Drainage and Flooding

A Flooding, Stormwater and WSUD Report has been prepared by Warren Smith and Partners and includes a Stormwater Drainage Concept Plan. The report is provided at **Appendix R**.

### Flooding and Stormwater

The overall Central Park site is situated within the Blackwattle Bay (SWC 17) catchment. The site is traversed by two major drainage systems, the Prince Alfred Park Branch which has a catchment area of 25 hectares upstream of the site, and the Tooth's Brewery Branch which has a catchment area of about 9 hectares. A site-wide stormwater system has been designed to accept the 20 year and 100 year design flows (piped and overland) respectively to connect to the detention tank beneath Chippendale Green prior to discharge to Sydney Water's stormwater mains.

Final ground level RLs for Block 8 provide the recommended minimum freeboard levels or higher to protect people and buildings. Overflows will be provided to cater for greater than 100 year ARI flows and will discharge into Council's drainage system and/or overland flow path.

### Water Sensitive Urban Design

A Water Sensitive Urban Design (WSUD) strategy has been prepared for the overall Central Park site. The strategy identifies site-specific opportunities which allow for development while achieving industry accepted / best practice water quality targets.

The strategy considers the entire Block 8 roof to drain into a rainwater tank to provide irrigation water to landscaped areas, toilet flushing and water for clothes washing in apartments. The pipe system from the roof to the rainwater tank will be designed to provide a minimum 100 year ARI capacity. The strategy also includes the combination of gross pollutant trap to treat runoff from the rainwater tank prior to discharge into the Council's trunk drainage system.

Non-potable water will be provided from the site-wide recycled infrastructure system and the site CTP will be used to generate potable hot water for apartments. Water metres for all major water uses will be provided in apartments and retail tenancies and linked to a Building Management System.

The WSUD measures are also provided to assist the building in achieving a 5 star Green Star rating as detailed in **Section 5.10** and the Sustainable Design Report provided at **Appendix O**.

### Erosion and Sediment Control

Erosion and sediment control measures are detailed in the report in accordance with the following principle:

- All existing surface pits will be protected, and all boundaries where there is potential for runoff to contaminate downstream property (private or public) will be protected by use of erosion fencing and earth berms.

The measures consider site access by construction vehicles, sediment and dust control, maintenance of erosion and sediment control devices and use of a temporary pump out system (where required). An Erosion and Sediment Control Plan is also provided.

Erosion and sediment control also forms part of the Construction Environmental Management Plan discussed in **Section 5.14** and provided at **Appendix U**.

## 5.13 Waste Management

A Waste Management Statement has been prepared by Arup and is provided at **Appendix S**. The statement provides details in relation to the waste generated during operation of the proposed development. Details in relation to the waste generated during construction of the proposed development are provided in **Section 5.14**. The statement makes an assessment against the legislative requirements including the *Protection of the Environment Operations Act, 1997*; *Waste Avoidance and Resource Recovery Act, 2001*; *NSW Waste Reduction and Purchasing Policy, 2007*; and *Council of the City of Sydney Policy for Waste Minimisation in New Developments, 2005*; as well considers Green Star requirements.

### 5.13.1 Operational Waste

The proposed development is likely to generate the following waste streams;

- Mixed general waste;
- Co-mingle recycling;
- Electronic waste;
- Hard rubbish; and
- Cardboard and paper recycling (commercial / retail only).

The main waste facilities for residential waste from the proposed development will include:

- 1x waste chute (general waste) to service residential levels 1 – 12, with discharge of waste directly into a compactor in the central waste storage area;
- 1x 360L co-mingle recycling MGB (Mobile Garbage Bin) on each residential level, to be rotated daily with empty bins in the central waste storage area (2 sets of bins, 26 in total);
- Waste collection rooms on all residential floors, each holding a recycling MGB and a waste chute compartment;
- A central waste storage area / Main Garbage Room (MGR) located at ground level, and

- An internal vehicle loading dock and turntable located adjacent to the central waste storage area.

The main waste facilities for commercial / retail waste from the proposed development will include:

- Separate sets of main garbage bins (MGBs) for the following waste streams: general waste, co-mingle recycling and paper recycling;
- Waste to be stored prior to collection in 240L MGBs (660L MGB for paper/ card) located in the MGR; and
- Waste collection from inside the vehicle loading dock.

## Waste Storage Areas

### Residential

Storage provision for the MGR is as follows:

- Separate storage areas for recycling and general waste;
- Lateral compactor and 6 x 660L waste bins (red lid) to service the general waste chute. The lateral compactor services 4 x 660L bins at any time;
- 13 x 360L co-mingle recycle bins to service each of the residential floors;
- 1x 240L waste bin (red lid) to service residents and the ground floor; and
- 1x receptacle for small e-waste (0.25m<sup>2</sup>).

Each residential level will host a waste collection room, which will include:

- Access to the general waste chute via a hand loaded compartment;
- 1x 360L MGB to collect co-mingle recycling; and
- Space for temporary storage of larger recyclables such as flattened cardboard boxes.

Given the residential waste collection room at ground level does not have access to the waste chute system, a 240L MGB will be provided to collect general waste.

### Commercial / Retail

The retail tenancies at ground level are expected to be used for retail or showroom purposes and as such will produce minimal waste. Accordingly, the waste collected from these tenancies will be stored in the building's central waste storage area prior to collection. Storage provision in the central waste storage room for the retail tenancies is as follows:

- 2x 240L general waste bin (red lid);
- 1x 240L co-mingle recycling bins (yellow lid);
- 1x 660L paper/ cardboard recycling bin (blue lid); and
- Space for temporary storage of larger recyclables such as flattened cardboard boxes and crates.

The basement will also host a larger, longer-term storage area for bulky items and large e-waste generated by both retail and residential uses. The exact location and size of the area is to be determined but will be no less than 8m<sup>2</sup>.

## Collection

Waste collection services for each residential waste stream will be provided by appropriate licenced contractors / Council. Written evidence of a valid and current

contractor with a licenced collector for waste and recycling collection and disposal will be provided and held on site at all times.

As there is expected to be minimal waste generated from retail tenancies which will be stored alongside residential waste, consultation will be undertaken with Council as to whether it can be collected with residential waste. Alternatively, a private waste contractor will collect this waste.

Residential waste collection will occur three times per week. Retail waste collection will occur twice a week, except for cardboard / paper recycling which will be collected once a week. Electronic waste and hard rubbish from both residential and retail uses will be collected monthly or as necessary.

### Amenity

The MGR and general waste management areas have been designed so as not to be visible from the exterior of the building. The waste management equipment to be selected will not generate significant noise and will be located in areas containing adequate acoustic insulation. Any putrescible waste to be collected will be stored in a Council approved containers and all waste storage areas will be fitted with mechanical vertical ventilation systems. Waste will be collected regularly which will reduce the risk of odour to building occupants and neighbours.

Overall, the proposed waste management areas and waste management practices will ensure high levels of occupant and neighbourhood amenity.

## 5.14 Construction Management

A Construction Environmental Management Plan (CEMP) has been prepared by Frasers Broadway Pty Ltd and is provided at **Appendix U**. The CEMP is to be read in conjunction with the CTMP prepared by GTA Consultants and provided at **Appendix N**, the Construction Waste Management Plan (CWMP) prepared by Arup and provided at **Appendix S** and the Erosion and Sediment Control Plan prepared by Warren Smith and Partners and provided at **Appendix R**. The CEMP addresses the following issues:

- Heritage and archaeology;
- Noise and vibration;
- Air quality;
- Soil and water management;
- Chemical management;
- Traffic management; and
- Health and safety management.

The CEMP will be revised and issued to the Private Certifying Authority prior to the commencement of the works.

### 5.14.1 Construction Traffic

A CTMP has been prepared by GTA Consultants and is provided at **Appendix N**. It is anticipated that construction activities will take approximately 19 months, with construction expected to generate between 6 and 30 truck movements per day.

It is noted that construction of Block 8 is anticipated to overlap with construction of Block 4S (located to the north of Block 8). Accordingly, the cumulative construction of Block 8 and Block 4S is expected to generate up to 60 vehicles per day or 12 vehicles per peak hour. Construction vehicle movements to and

from the site can be satisfactorily accommodated by the surrounding road network.

Construction traffic will be managed in accordance with the following measures;

- A traffic control plan will be prepared and implemented to assist vehicles entering and exiting the site and alert other drivers, pedestrians and cyclists that construction movements are taking place;
- All construction traffic vehicles will enter the site via a right turn from Abercrombie Street onto Irving Street, and will exit via a right turn from Irving Street onto Central Park Avenue then a right turn onto O'Connor Street and a right turn onto Abercrombie Street;
- A number of driver protocols will be established as part of the site induction procedure for drivers to ensure the safety of motorists, pedestrians and cyclists; and
- Parking will be provided for construction traffic vehicles (to the north of Block 8, between Blocks 4N and 4S). However, the site is well served by public transport and construction workers will be encouraged to use these services.

The CTMP concludes that the proposed measures contained within the report will adequately address potential traffic related impacts associated with the construction of Block 8.

### 5.14.2 Construction Noise and Vibration

During construction, noise and vibration will be managed in accordance with the CEMP prepared by Frasers Broadway Pty Ltd and provided at **Appendix U**.

Based on typical construction practices and equipment used, it is anticipated that the principal source of noise emissions during the construction process will be generated during the ground excavation phase including from jack hammering and piling works.

Noise management will include noise and vibration monitoring, carrying out of works during approved hours and minimising the duration of high noise activities, and a register of noise complaints will be maintained.

### 5.14.3 Construction Waste

Construction waste and a CWMP are detailed in the Waste Management Statement prepared by Arup and provided at **Appendix S**. Construction of the proposed development is likely to generate excavation and construction waste streams, with natural materials, concrete, steel reinforcement, plastics and recyclable materials likely to comprise the greatest volume. The primary goal for waste management in the construction phase is to ensure at least 80% of waste is recycled or reused, which also supports Green Star goals.

During construction, suitable areas on- and/or off-site will be provided and will include adequate space and access for:

- Storage of building materials;
- Storage of demolition and construction waste;
- Sorting of demolition and construction waste; and
- Removal of demolition and construction waste for recycling, re-use or landfill.

The areas are likely to be the north west of the site (the future retail tenancy) and the centre north of the site (the future loading dock).

Construction vehicles (including construction waste collection vehicles) will enter and exit the site via Abercrombie Street, in a forward direction only. Traffic will be directed via two gates. A truck turning bay will be provided in the same location as the future loading dock.

#### 5.14.4 Erosion and Sediment Control Plan

An Erosion and Sediment Control Plan is provided as part of the Flooding, Stormwater and WSUD Report prepared by Warren Smith and Partners and provided at **Appendix R**. The principle for erosion and sediment control is described in **Section 5.12** and further measures provided at **Appendix R**.

### 5.15 Staging

The proposed development is intended to be delivered as a single project. However, as part of the construction this includes successive phasing of the works and there is allowance for contingency in the delivery.

The staging of the proposed development in relation to the remainder of the Central Park site is in accordance with the approved Concept Plan (as modified) which identified the delivery of Central Park in six stages. Block 8 is to be delivered as part of Stage 5.

### 5.16 Contributions

The Affordable Housing Planning Agreement, between the Redfern Waterloo Authority and the landowner, was accepted by Deed Poll dated 29 July 2007 and outlines how contributions towards affordable housing will be calculated for the Frasers Broadway site. A payment plan was established and payments have been made in instalments over the last five years. The AHPA does not specifically relate to Block 8, nor is there an Owners Consent Deed for Block 8.

The Voluntary Planning Agreement between the Minister for Planning and the landowner dated 9 February 2007 requires that 'design excellence' be achieved in the architecture developed across the site. In relation to Block 8, three Australian architectural firms were invited to take part in a design competition. The process is described in **Section 5.4** and a competition report is provided at **Appendix T**.

### 5.17 Site Suitability

Having regard to the characteristics of the site and its location both within the overall Central Park site and Central Sydney, the proposal is considered suitable for the site as it:

- Is located within Central Park which is within the Sydney City sub-region which is nominated as a 'Global Centre';
- Will take place in a highly modified and disturbed urban environment and will not impact on biodiversity values;
- Will contribute to the enhancement of a key CBD location that is presently underutilised;
- Will accord with the principles of Ecologically Sustainable Development by contributing to the proper management, development and conservation of the artificial resources of the site;
- Is within walking distance of other services and amenities, including public transport, retail and employment opportunities offered by the CBD;
- Is in close proximity to the pedestrian and cycle facilities within Central Park; and

- Will support the provision of a high quality public domain, in particular Chippendale Green located to the east of the proposal.

## 5.18 Public Interest

The proposed development is considered to be in the public interest as it:

- Will promote the social and economic welfare of the community by providing an improved urban environment;
- Will provide a substantial quantum of residential accommodation within an existing urban area which has easy access to good public transport;
- Will provide residential accommodation in support of Sydney's growing economy and population;
- Will encourage patronage on public transport by being in close proximity to rail, light rail, bus and ferry services;
- Will encourage alternative modes of travel by providing bicycle parking for residents, visitors and retail patrons;
- Will provide community connections within the overall Central Park development;
- Will achieve a 5 star Green Star rating;
- Will contribute to the achievement of specific targets relating to new jobs and new dwellings;
- Will address the provision and maintenance of affordable housing by adhering to the agreement established between the Redfern Waterloo Authority and the landowner; and
- Has responded to extensive consultation undertaken with various levels of government, authorities and the community.

## 6.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in **Table 12**. These measures have been derived from the previous assessment in **Section 5.0** and those detailed in appended consultants' reports.

**Table 12** – Mitigation Measures

Mitigation Measures
<p><b>CPTED</b></p> <ul style="list-style-type: none"> <li>– The proposal is to adhere to the recommendations made in the CPTED (<b>Appendix H</b>) in order to meet the CPTED principles including (but not limited to):               <ul style="list-style-type: none"> <li>– using appropriate street and under-awning lighting;</li> <li>– maintaining clear internal and external sight lines;</li> <li>– providing appropriate security to back of house / loading dock areas;</li> <li>– using passive and active surveillance measures i.e. CCTV;</li> <li>– providing access control at street level and to the basement;</li> <li>– using of durable materials;</li> <li>– providing appropriate way-finding signage and public domain amenity; and</li> <li>– ensuring maintenance is undertaken promptly.</li> </ul> </li> </ul>
<p><b>Wind</b></p> <ul style="list-style-type: none"> <li>– The extent of wind mitigation required at those locations that exceed the wind distress criterion (identified in the report provided at <b>Appendix I</b>) is to be determined as part of ongoing design development prior to commencement of the works.</li> </ul>
<p><b>Reflectivity</b></p> <ul style="list-style-type: none"> <li>– All exterior façade materials are to have a reflectivity coefficient of 20% or less.</li> </ul>
<p><b>BCA</b></p> <ul style="list-style-type: none"> <li>– The proposal is to make compliant those items identified in the BCA Assessment Report (<b>Appendix J</b>) as being non-compliant in the Construction Certificate application prior to the commencement of the works.</li> </ul>
<p><b>Transport and Accessibility</b></p> <ul style="list-style-type: none"> <li>– Residents are to be provided with remote control access to basement level car parking to ameliorate queuing and ensure pedestrian safety.</li> <li>– Signage prohibiting pedestrian access is to be provided at the car park entry on Irving Street to discourage pedestrian use.</li> <li>– An additional security controlled roller shutter is to be provided at basement level 1 to separate car share users from residents.</li> <li>– Residents are to be provided with a Green Travel Plan to encourage use of alternative modes of transport.</li> </ul>
<p><b>ESD</b></p> <ul style="list-style-type: none"> <li>– Minor modifications are to be made to nine apartments to ensure they pass the NatHERS assessment in accordance with the BASIX Certificate (<b>Appendix P</b>)</li> </ul>
<p><b>Noise</b></p> <ul style="list-style-type: none"> <li>– Plant and equipment is to be selected to ensure compliance with noise criteria identified in the Noise Impact Assessment (<b>Appendix Q</b>) and acoustic treatments are to be provided as necessary.</li> </ul>
<p><b>Drainage and Flooding</b></p> <ul style="list-style-type: none"> <li>– WSUD is to be undertaken in accordance with the site wide WSUD strategy.</li> <li>– The WSUD strategy is to inform the WSUD measures to be implemented to assist in achieving a 5 star Green Star rating.</li> </ul>
<p><b>Waste Management</b></p> <ul style="list-style-type: none"> <li>– The proponent is to consult with Council as to whether commercial / retail waste can be collected along with residential waste or whether a private waste contractor will need to collect this waste.</li> <li>– The Waste Management Statement (<b>Appendix R</b>) is to inform the preparation of a building user guide, waste auditor report and Construction Waste Management Plan associated with achieving a 5 star Green Star rating.</li> </ul>
<p><b>Commercial</b></p> <ul style="list-style-type: none"> <li>– The proponent is to prepare a Plan of Management (PoM) detailing provision for commercial / retail waste disposal and collection as part of residential waste storage and removal. In particular, the PoM is to address access to the residential waste storage area via Abercrombie and Irving Streets.</li> </ul>
<p><b>Construction Management</b></p> <ul style="list-style-type: none"> <li>– A final CEMP is to be submitted to the Private Certifying Authority prior to the commencement of the works.</li> </ul>
<p><b>Traffic</b></p>

### Mitigation Measures

- Construction traffic, including traffic control, entering and exiting the site, driver protocols and parking is to be managed in accordance with the CTMP (**Appendix N**).

#### Noise and Vibration

- Noise and vibration is to be managed in accordance with the CEMP (**Appendix U**).

#### Waste

- The proponent is to provide a detailed Waste Policy Design Compliance Certificate for the Construction Certificate application, which is to include details regarding disposal and recycling of different materials expected from demolition, construction, and the transport and destinations of these materials.

#### Erosion and Sediment Control

- Erosion and sediment control is to be managed in accordance with the Erosion and Sediment Control Plan (**Appendix R**).
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## 7.0 Conclusion

This Environmental Impact Statement (EIS) has been prepared to consider the environmental, social and economic impacts of the development of a mixed use building known as Block 8, within the Central Park site. The EIS has addressed the issues outlined in the Director General's Requirements (see **Appendix A**) and accords with Schedule 2 of the EP&A Regulation in regards to the form and content of the EIS.

The carrying out of the proposal is justified and warrants approval for the following reasons:

- The proposal is permissible with consent and meets the requirements of the relevant statutory planning controls;
- The proposal is generally consistent with the approved Concept Plan (as modified) which establishes land uses, building envelopes, street layouts and general development parameters;
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2 Clause 7(4) of the *Environmental Planning and Assessment Regulation 2000*;
- The proposal exhibits a high quality design, achieving a strong relationship with the surrounding future and existing built form;
- The proposal provides a high standard of amenity through a mix of unit types and sizes, outlook, natural daylight and ventilation, and provision of internal and external communal areas;
- The proposal encourages active use of public transport with attributes including secure bicycle storage and end of journey facilities, and its proximity to public transport hubs, walking paths and amenities; and
- The proposal contributes to the activation of Central Park through provision of active ground level uses.

In light of the environmental, social and economic benefits of the proposal and the planning merit and significant public benefits associated with the proposal, it is recommended that this application be approved.