Environmental Assessment – Project Application

Former Rachel Forster Hospital MP 09-0068
134-144 Pitt Street, Redfern

Major project for the redevelopment of the former Rachel Forster Hospital site for residential (159 units) and public open space purposes with basement parking (170 car spaces)

Submitted to
Department of Planning
On Behalf of Kaymet P/L

May 2012

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Submission of Environmental Assessment

Prepared under Part 3A of the Environmental Planning and Assessment Act 1979.

Environmental Assessment prepared by

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In respect of	Former Rachel Forster Hospital Site

Applicant and Land Details

Applicant Name	Kaymet P/L
Applicant Address	C/- 6/4 Hogben Street, Kogarah NSW 2217
Lot/Deposited Plan	Lot 7 DP 664804 134-144 Pitt Street, Redfern

Environmental Assessment

Dated	10 November 2011
Statement of Validity	I certify that I have prepared the contents of the Environmental Assessment in accordance with the Director-General's Requirements dated 5 May 2009
Signature	
Name	Anthony Dominic Betros
Date	November 2011

1 Executive Summary

1.1 Background - from designation as a major project to present

The subject site (known as the former Rachel Forster Hospital site) was designated as a Project to which Part 3a of the Act applies on 18 April 2007.

The site is known as 134-144 Pitt Street, Redfern which lies approximately 500-metres south-east of Redfern Railway Station and 2km south of the Sydney CBD.

The site has an area of almost 7,000m² and lies within the Local Government Area of City of Sydney Council and the Redfern-Waterloo Authority's (RWA) Operational Area.

A concept plan was authorised by the Minister on 15 May 2007.

The Concept Plan Application was made on behalf of the Redfern Waterloo Authority by SJB Planning which was submitted on 28 June 2007.

The Department of Planning gave determination to the Concept Plan for the Major Project in October 2007.

The concept plan includes the following elements:

- Medium density residential zoning;
- 159 residential units;
- FSR maximum of 2:1;
- Height limit of 3 (northern part of the site) to 6 storeys (central and southern parts of the site);
- Public recreation space dedication; and
- Retention of heritage features.

The site was subsequently sold by the NSW Department of Health and purchased by the applicant, Kaymet P/L in 2007.

A Preliminary Assessment was provided by ABC Planning P/L in March 2009 in association with the plans prepared by Architecture and Building Works.

Director General Requirements (DGRs) were issued by the Department of Planning on 5 May 2009. The proposed plans and accompanying information have been prepared in accordance with the DGRs.

This proposal is submitted on behalf of Kaymet P/L.

1.2 Accompanying Material

This report addresses and is accompanied by material (refer to Appendices) which responds to the DGRs and Statement of Commitments in relation to the following measures:

1. Built Form and urban design - Architecture and Building Works (Appendix A: Architectural Plans and Appendix C: Shadow Diagrams), Urbis (Appendix I: Design Report), and Weir and Phillips Heritage Architects (Appendix H: Heritage Impact Assessment).

2. Design excellence - Architecture and Building Works (Appendix A: Architectural Plan and Appendix C: Shadow Diagrams), Urbis (Appendix I: Design Report), and Weir and Phillips Heritage Architects (Appendix H: Heritage Impact Assessment).

3. Traffic and parking – Transport and Traffic Planning Associates (Appendix G: Traffic Assessment).

4. Public open space – Isthmus (Appendix B: Landscape Plan).

5. Public domain – Isthmus (Appendix B: Landscape Plan).

6. Heritage - Weir and Phillips Heritage Consultants (Appendix H: Heritage Impact Assessment).

7. Archaeology – Archaeological and Heritage Management Solutions (Appendix R: Archaeological Report).

8. Structural integrity - Architecture and Building Works (Appendix A: Architectural Plan) and Enstruct (Appendix N: Structural Assessment).

9. Geotechnical and site contamination and remediation - Douglas Partners (Appendix K: Supplementary Report on Geotechnical Investigation)

10. Site infrastructure and services - Armstrong (Appendix O: Hydraulic and Fire Services Scheme and Appendix S: Services Letter).

11. Management of Stormwater - Green Arrow (Appendix F: Stormwater Plan).

12. Building Code of Australia Capability – Building Certificates Australia Pty Ltd (Appendix L: Indicative BCA Compliance Report).

13. Accessibility - Architecture and Building Works (Appendix A: Architectural Plan).

14. Ecologically sustainable development - BASIX prepared by ABC Planning P/L (Appendix P: BASIX Certificate).

15. Construction Management Plan - Architecture and Building Works (Appendix A: Architectural Plan).

16. Developer Contributions - in accordance with Redfern Waterloo Contributions Plan 2006 and Affordable Housing Plan 2006.

17. Erosion and Sediment Control Plan & Stormwater Plan – Green Arrow (Appendix F: Stormwater Plan)

18. Arboricultural Assessment and Development Impact Report - prepared by Guy Paroissien Landscape Matrix Pty Ltd (Appendix Q: Arboricultural Assessment .

19. Environmental Noise Assessment – Acoustic Logic Consultancy (Appendix M: Environmental Noise Assessment).

20. Cost Analysis - QPC&C (Appendix J: Cost Analysis).

1.3 Relevant EPIs and Policies

- *SEPP (Major Projects) 2005 Schedule 3- Part 5* The Redfern Waterloo Authority Sites including the Design Excellence provisions - This has been addressed in this Planning Report as well as in the Design Report prepared by Urbis which focuses on urban design aspects of the proposal. The proposal is consistent with the aims of the policy which seek to facilitate the development of this important urban site.

- *SEPP (Building Sustainability Index: BASIX) 2004-* - This has been addressed by ABC Planning P/L and achieves a compliance certificate (Appendix P: BASIX Certificate).

- *SEPP 55- Remediation of Land* - This has been addressed by Douglas Partners in the Supplementary Report on Geotechnical Investigation, which demonstrates that the site can be made suitable for residential development (Appendix K: Supplementary Report on Geotechnical Investigation).

- *SEPP 65- Design Quality of Residential Flat Development* - This has been addressed in this Planning Report as well as in the Design Report prepared by Urbis (Appendix I: Design Report).

- *Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy* - This has been addressed in this Planning Report. The proposal is consistent with the Strategy whereby additional housing is proposed in an area well serviced by public transport, shops and services.

- *Redfern-Waterloo Built Environment Plan (Stage 1) August 2006 (BEP)* - This has been addressed in this report whereby it is demonstrated that the built form and design principles are generally in accordance with the Plan.

1.4 Consistency with concept approval

The proposed development is consistent with the approved concept plan in that it:

- Maintains the 4 building forms as approved on the concept plan;
- Maintains the residential nature of the concept plan;
- Maintains the 2:1 FSR envisaged for the site and number of units;
- Maintains the 2 basement levels for the site with vehicular access from Pitt Street;
- Maintains the publicly accessible open space area at the front of the site along Pitt Street;
- Maintains the colonnade along the eastern side of Building 2;
- Maintains habitable areas below the Albert Street footway within Building 3; and
- Provides for skylights along the roofs of each building to service the upper level units.

1.5 Variations from the concept approval

The proposed development varies from the approved concept plan in the following ways:

- Slight variations to the siting of the buildings;
- Building height variations as shown in Table 1 below;
- Increase in the number of units from 150 to 159;
- Additional level of independent units along the Albert Street frontage (no major increase in building height from concept plan)
- Additional level of units in Buildings 2 and 4 (no major increase in building height from concept plan);
- Increase in the number of car parking spaces from 161 to 170; and
- No cross over apartments.

1.6 Building layout

The architectural plans clearly demonstrate any variations from the concept plan approval on plan and in elevation and sections.

The project application seeks approval for the general siting of the buildings, which are consistent with those in the approved concept plan. The project application proposes to retain the approved 'H' configuration of the existing former hospital buildings.

Consistent with the concept approval, the 4 buildings on the site will be referred to as shown in the following plan (Buildings 1 - 4):

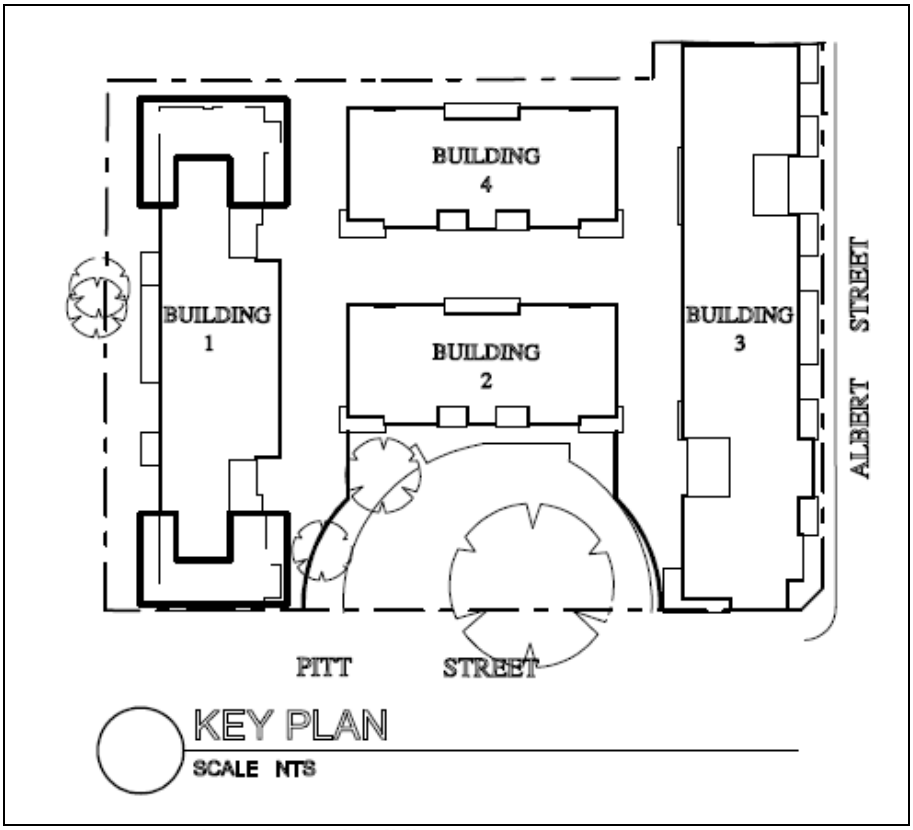

Figure 1: Proposed 'H' configuration and buildings numbers

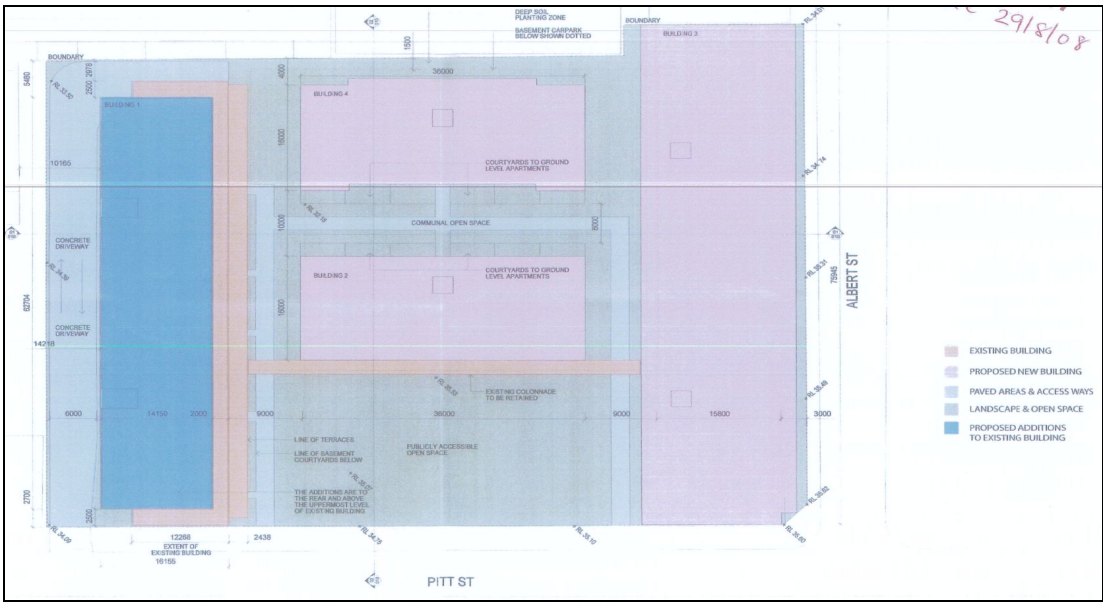

Figure 2: Approved concept plan configuration of buildings

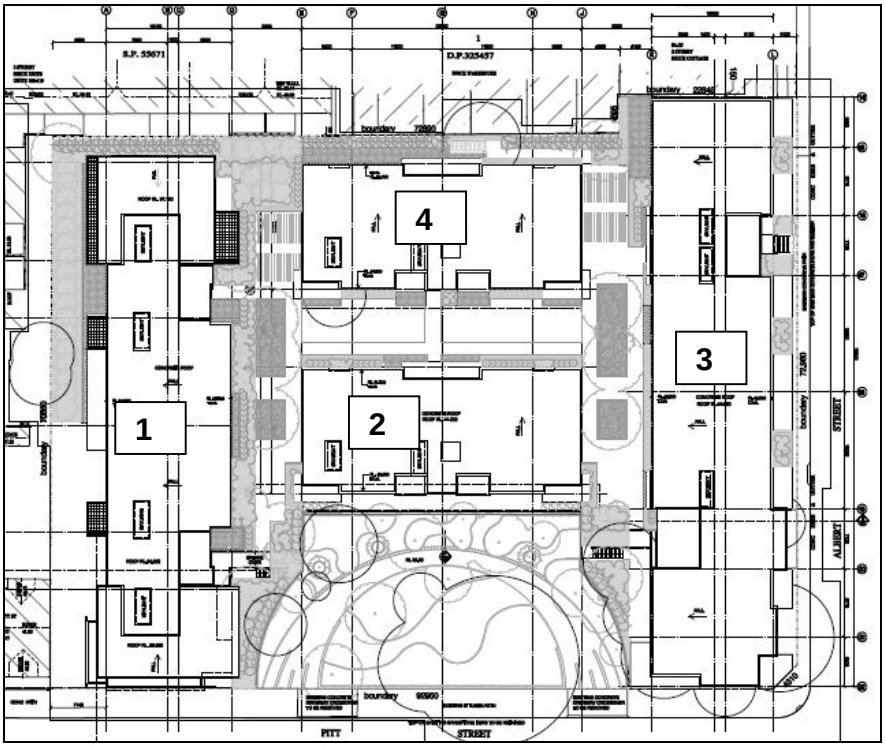

Figure 3: Proposed configuration of buildings

The siting of the buildings are generally consistent, while small variations are proposed. The Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report) further outlines these variations in Section 4 of their report:

> *"Building 1*
>
> *The proposal is generally consistent with the floor plate as approved in the concept plan.*
>
> *There is a nominal variation in the building width decreasing from 16.2 metres in the approved concept plan to 16.16 metres. The building length has also been increased by 4.1 metres, from 63.5 metres to 67.6 metres. The proposed increase in building dimensions facilitates a reconfiguration of apartments, allowing a greater mix and size of apartments and improved residential amenity.*
>
> *Building 3*
>
> *The proposed concept maintains the dimensions of the approved scheme, with a width of approximately 15.5 metres and a length of approximately 75.9 metres.*
>
> *Buildings 2 and 4*
>
> *There is a nominal increase in the widths of Buildings 2 and 4, from 16 metres to 16.21 metres. The overall building length for both buildings has been retained at 36 metres."*

Given the extent of the buildings, such variations are considered to be indiscernible and of no design or amenity consequence.

1.7 Building Height

As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> "*as with the approved concept plan, the proposed scheme has been designed such that there is a 'stepping down' of building heights across the site. Building 1 is the tallest building on site at 6 storeys, being an adaptive re-use of the existing surgery wing building. Buildings 2, 3 and 4 are three storeys above ground level, providing an overall transition in height between Building 1 and the general scale and form of buildings along Pitt and Albert Streets."*

The project application seeks approval for site responsive variations (above and below) to the building heights approved under the concept plan.

	Concept Plan	**Proposed**
Building 1	RL 55.10	RL 56.70 (main building form is RL 54.65 – 0.45m less than concept plan)
Building 2	RL 45.05	RL 45.20
Building 3	RL 45.05	RL 44.95
Building 4	RL 45.05	RL 44.50

Table 1 Height variations

Building 1

Building 1 exceeds the concept plan height at the southern end fronting Pitt Street, yet is predominantly below the concept plan approval height. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"The approved concept plan has an overall roof height of RL55.10 excluding plant rooms. The revised scheme proposes an increase in height to a maximum height of RL56.7 inclusive of all plant rooms.*
>
> *As illustrated by comparing the approved concept plan* (in Figure 4)*, and the proposed development* (in Figure 5)*, the overall massing and scale of the proposal is generally consistent with the approved concept plan. Furthermore, the majority of the building is located below the approved concept plan height.*
>
> *As demonstrated in* Figure 5 *which overlays in red the approved concept plan over the current proposal, the difference in height is minor and is predominantly due to increased articulation and taller emphasis of building elements at the eastern and western ends of the building. This increase in height does not add to the overall bulk of the proposal but improves the overall design of the building by essentially 'book ending' the building. This assists in the overall design of the building ensuring it reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, uniform structure.*"

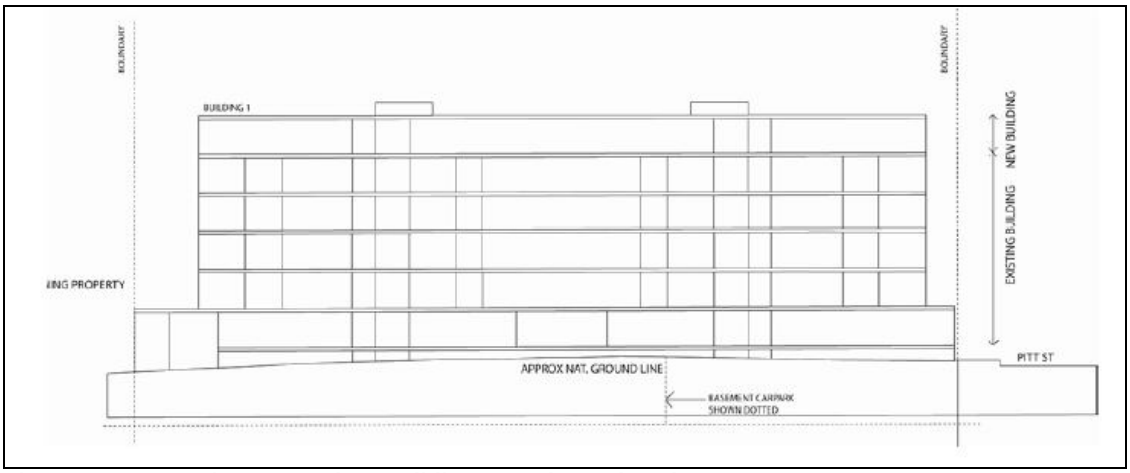

Figure 4: Approved concept plan- Building 1 northern elevation

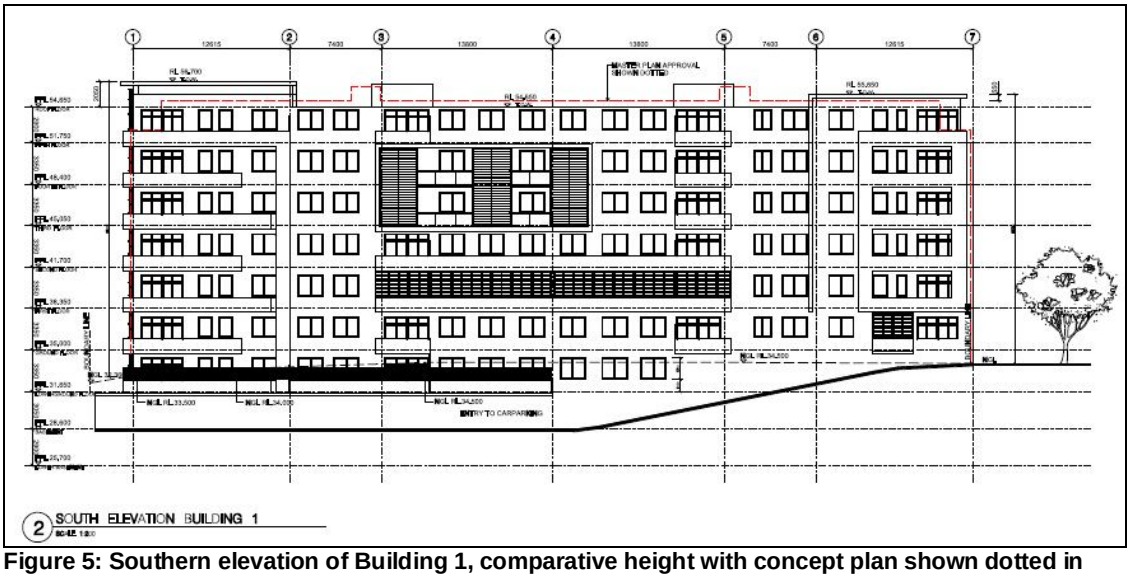

Figure 5: Southern elevation of Building 1, comparative height with concept plan shown dotted in red

Buildings 2 and 4

Building 2 is greater in height than the concept plan by 0.15m, which is considered to be indiscernible given the setback of over 20 metres from the Pitt Street property boundary. Furthermore, the public open space and associated planting within this setback would further diminish any perception of additional height. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"Building 2 within the approved concept plan has a height of RL45.05 (excluding plant rooms). Within the proposed scheme, Building 2 has a height of RL 45.20 (excluding plant rooms), being an overall increase in height of 0.15m. This increase in height is negligible and is not considered unreasonable given it will have no noticeable increase in impacts in terms of view loss or overshadowing."*

Building 4 is less in height than the concept plan by 0.55m which is also considered to be indiscernible. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"Building 4 within the approved concept plan has a height of RL45.2 (excluding plant rooms). Building 4 within the proposed scheme has a height of RL 44.5 (excluding plant rooms), being an overall reduction in height of 0.55m."*

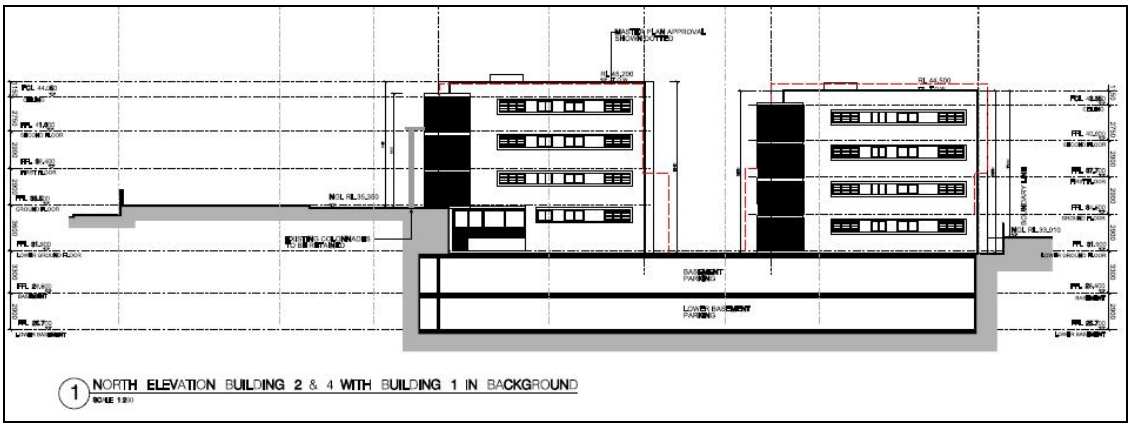

Figure 6: Northern elevation of Buildings 2 and 4, comparative height with concept plan shown dotted in red

Building 3

Building 3 has been altered from the original concept Plan to allow for the lower apartments on the corner of Pitt and Albert Street to receive adequate solar access and natural light into living rooms. The concept plan shows that the lowest level would be inter-connected with the level above as these units were 2-storey units. It is considered that the single level units at the lowest level will receive adequate amenity through restriction of balcony overhangs and their access to northern sunlight.

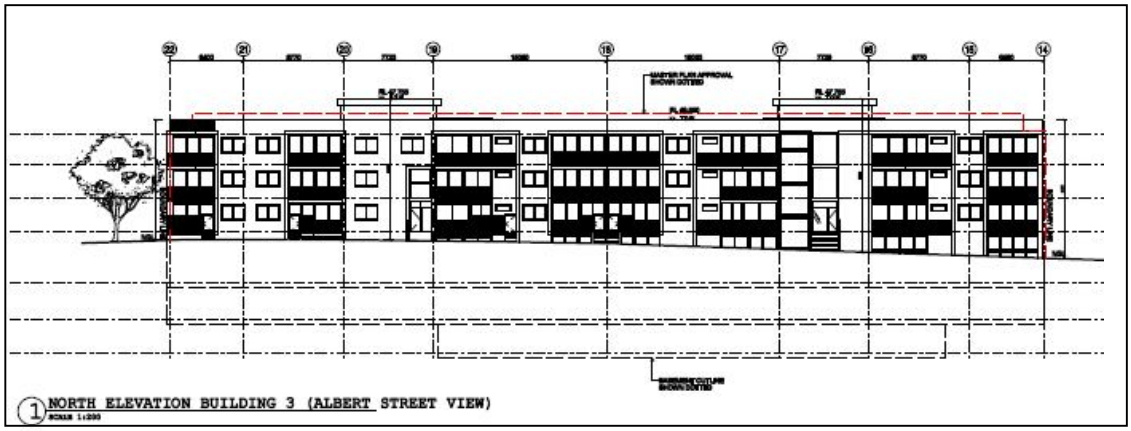

Figure 7: Northern elevation showing Building 3 (Albert Street), comparative height with concept plan shown dotted in red

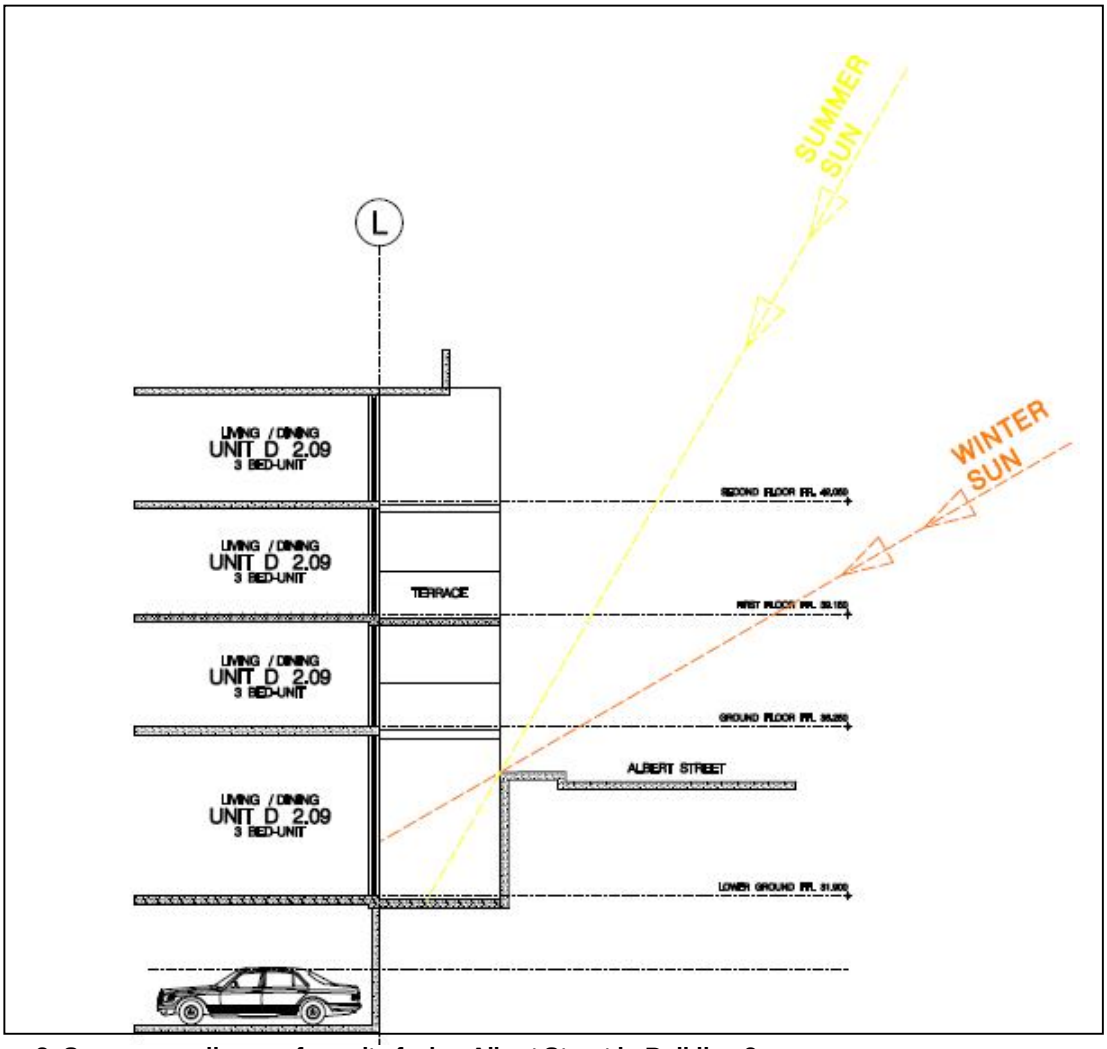

Figure 8: Sun access diagram for units facing Albert Street in Building 3

As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"Building 3 has a roof height of RL 45.95 (excluding plant rooms) and comprises 3 storeys, and a lower ground level (note this lower ground level is labelled basement level in the approved concept plan drawings).*
>
> *The maximum building height has been slightly decreased from that in the approved concept plan, by incorporating a flat roof as opposed to a skillion roof form. This reduction in height is illustrated in Figure [9] whereby the approved concept plan has been overlayed in red over the northern elevation of Building 3.*
>
> *We do however note that the lift overruns for the proposed building do extend beyond the approved building envelope, having an overall height of RL47.76 (Figure [10]). The approved envelope did not however factor in the need for lift overruns in providing lift access to apartments."*

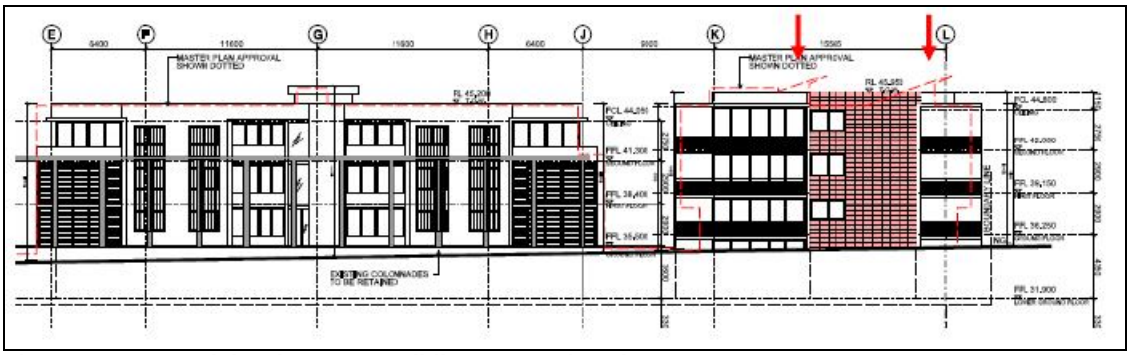

Figure 9: Proposed development- Building 3 east elevation

Figure 10: Proposed development- Building 3 south elevation

1.8 Car Parking

The project application seeks approval for a total of 170 car spaces. This is an increase of 9 spaces from the approved concept plan (161 spaces approved). The lower basement parking area will contain a total of 63 car spaces. The upper basement parking area will contain a total of 107 car spaces. The driveway design is considered to be an improvement to the concept plan which showed the driveway to occupy the entire southern side setback. The proposed plan allows for private open space areas to

cantilever over the driveway which is a better urban design outcome and an improved amenity outcome for the units in Building 1.

As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"A significant change between the approved concept plan and the proposed development is the configuration and siting of the basement parking levels. It is proposed to lower the lower ground floor basement car park from the approved RL of 28.30 to RL 25.70, being a 2.6m difference.*
>
> *As demonstrated by comparing* Figure 11 *and* Figure 12*, lowering the lower basement parking level eliminates the sub-terrain apartments contained within Buildings 1 and 3 of the approved concept plan. This is an appropriate outcome as these apartments have poor solar access and orientate predominantly onto a solid building wall, thus having poor overall residential amenity. By lowering the basement parking levels, greater solar access penetration is received by ground floor units, as well as an improved outlook. This substantially improves the amenity of the proposed apartments.*
>
> *The revised parking arrangement also allows for a consolidated parking arrangement with additional parking spaces, while maintaining deep soil zones."*

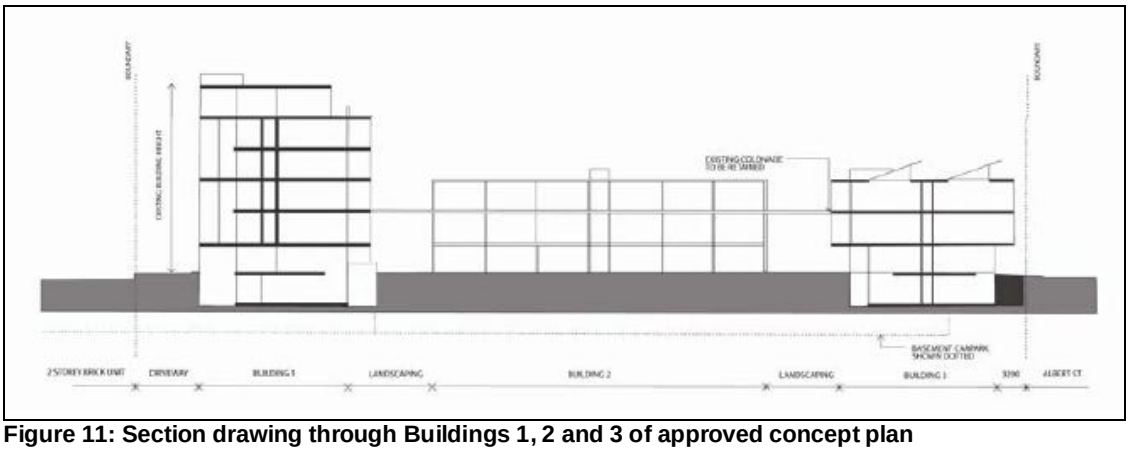

Figure 11: Section drawing through Buildings 1, 2 and 3 of approved concept plan

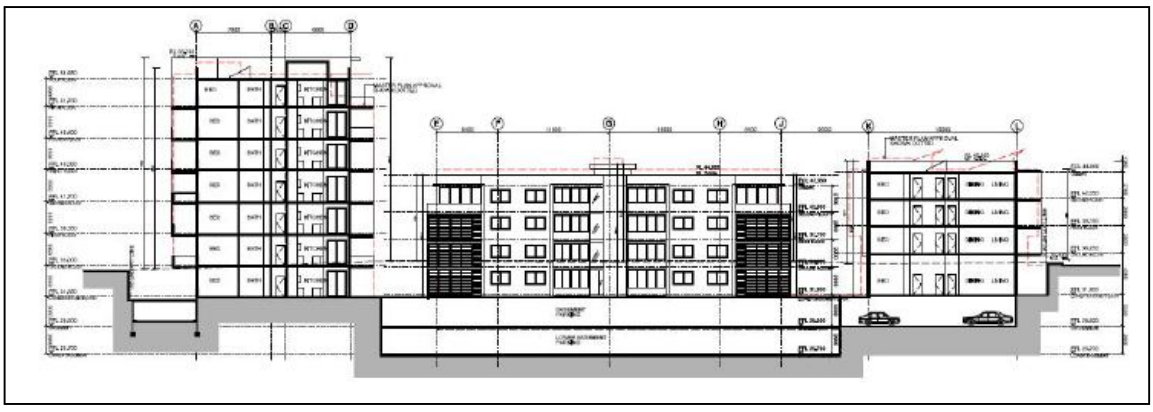

Figure 12: Section drawing through Buildings 1, 2 and 3 of proposed development

1.9 Development Yield

The project application seeks approval for a total of 159 residential units. This is an increase of 9 residential units from the approved concept plan (150 units envisaged). Building 1, located on the southern boundary, will contain 67 residential units. Building 2, located on the eastern boundary, will contain 22 residential units. Building 3, located on the northern boundary, will contain 46 residential units. Building 4, located on the western boundary, will contain 24 residential units.

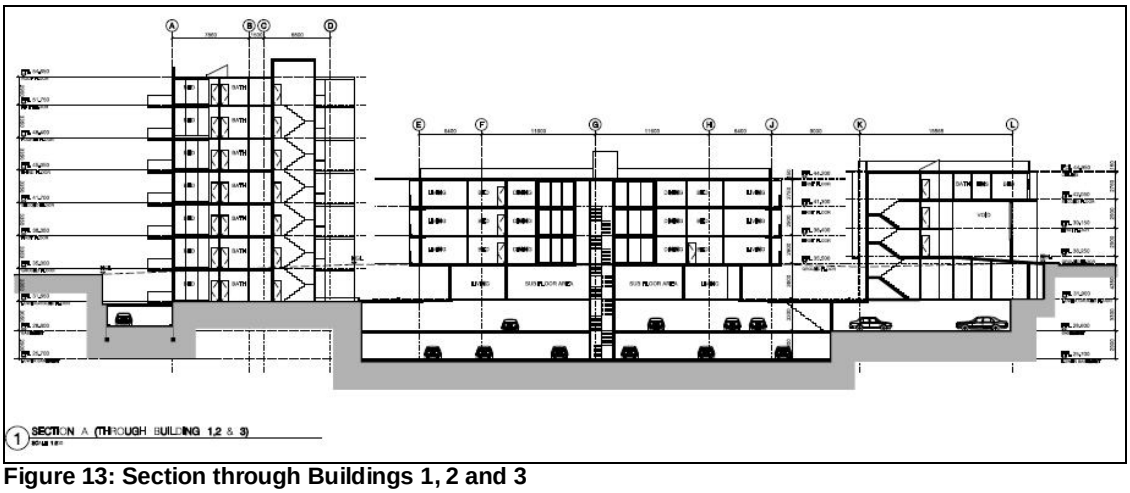

Figure 13: Section through Buildings 1, 2 and 3

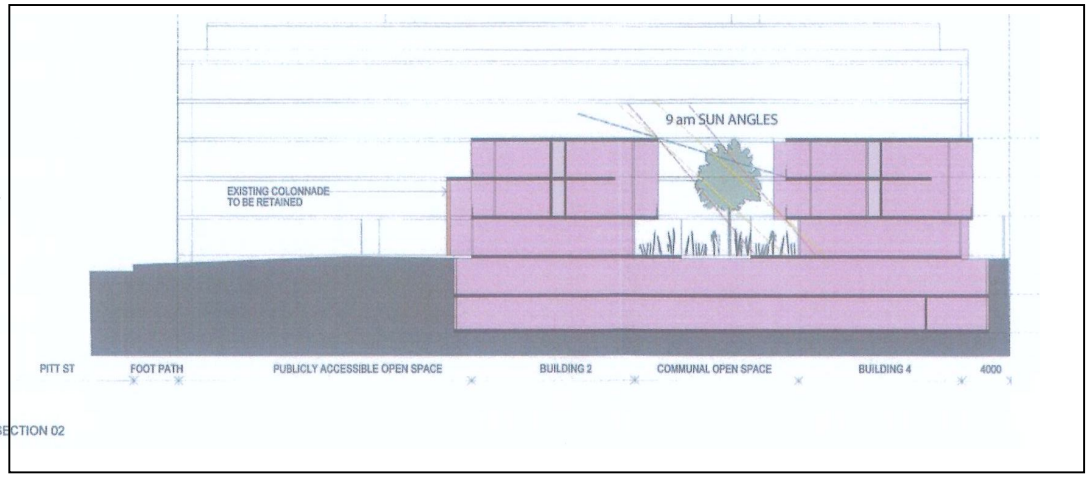

Figure 14: Concept plan showing sun angles

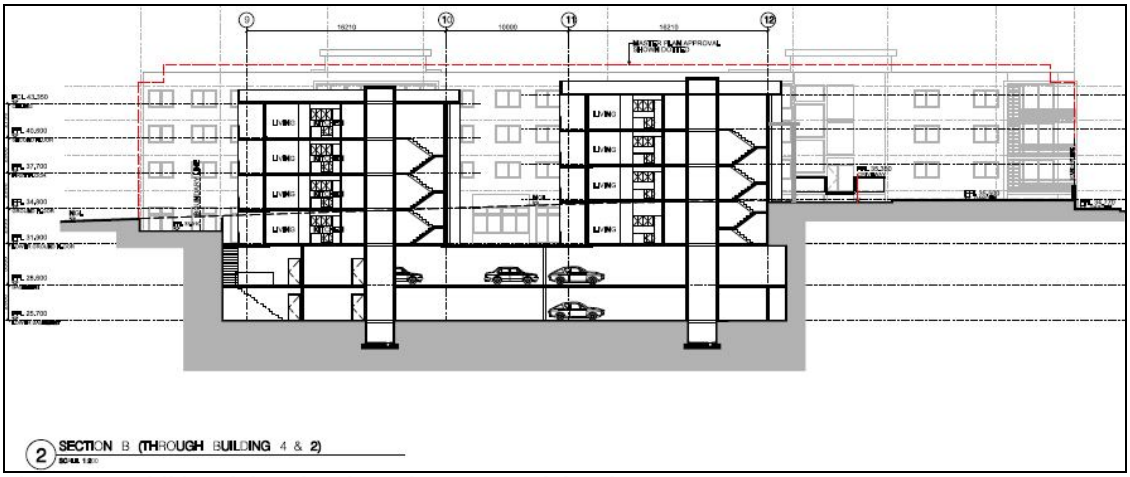

Figure 15: Additional floor levels of the proposed development

As demonstrated in the figure above, the lower 2 parking levels of the proposed development have been lowered. Units B1.01 to 1.04 and Units C 1.01 to 1.06, all have access and orientation above the new ground level (RL 31.80).

1.10 Built Form and Urban Design

Urbis has been appointed to provide urban design advice for the site (Refer to (Appendix I: Design Report prepared by Urbis dated February 2010). Weir and Phillips Heritage Architects (refer to Appendix H: Heritage Impact Assessment prepared by Weir and Phillips dated August 2010) have also provided input into the design to ensure a sympathetic approach to retention and adaptation with the historical components of the site. These include the facades of the major building on the site (Building 1), the colonnade as well as the well in the basement.

The facades in particular have undergone a series of design modifications before arriving at the submitted design. The internal layout of the units has also undergone design review to maximise the degree of units to achieve solar access and natural ventilation whilst also having regard to amenity considerations including visual and acoustic privacy. It was common ground that additional storeys could be inserted within the approved conceptual building envelope in Buildings 2, 3 and 4. Importantly, the sections demonstrate that these additional storeys achieve desirable levels of amenity in terms of solar access and outlook, outperforming SEPP 65 sun and ventilation requirements.

Externally, there is considered to be no unreasonable overshadowing, privacy or view loss to any of the surrounding dwellings. Overall, it is considered that the amenity of the proposed apartment dwellings has been improved considerably than the previous Concept Plan in that greater solar access penetration is received by ground floor units, as well as an improved outlook, lift overruns have been factored in to provide lift access to apartments, additional units and parking spaces are provided.

1.11 Public Domain

The proposal will substantially improve the appearance of the site and its contribution with the local and broader community. The proposed orientation of units to the respective street frontages to Pitt Street (eastern elevation) and Albert Street (northern elevation) will engage the development with the public domain and assist with passive surveillance.

The public open space is clearly designated from the remainder of the site visually whilst also being at a level distinct from the private components of the site. The pedestrian linkages are clearly legible from the respective street frontages whilst maintenance of the existing vehicle entry point to the basement car parking levels also assists with legibility.

The siting of the driveway entry at the extreme southern end of the site allows for an uninterrupted and positive streetscape outcome. The siting of the driveway adjacent to the blank wall of the southern neighbour ensures that this is not at the expense of any amenity associated with the southern neighbours. The restriction of the single vehicle access point to Pitt Street is also a desirable streetscape outcome for Albert Street. The proposed corner treatment is also supported by Urbis as it achieves a bold presence to the intersection of Albert and Pitt Streets.

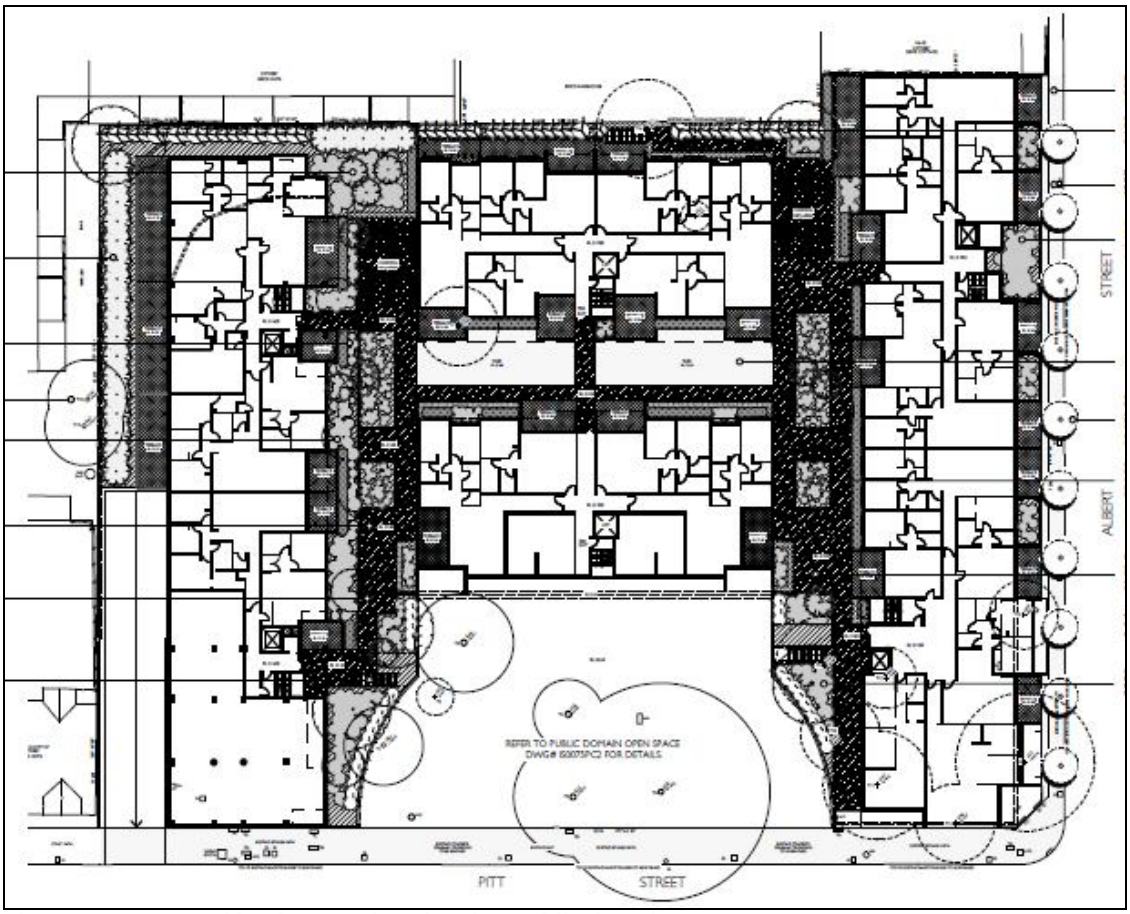

Figure 16: Proposed landscape plan showing public domain

1.12 Transport and Accessibility Impacts

An Assessment of Traffic and Parking Implications prepared by Transport and Traffic Planning Associates dated August 2010 (refer to Appendix G: Traffic Assessment) accompanies the proposal. The revised design will be consistent with the approved traffic and parking plans.

The site is fortunately located in that it can be easily accessed via regional roads including Cleveland Street to the north, Botany Road to the west as well as South Dowling Street to the east. It is envisaged that all construction traffic would be restricted to Pitt Street due to its carriageway being wider than Albert Street.

The proposal provides for 170 car spaces which ensures that there will be 1 space for each residential unit, plus 11 visitor spaces.

The proposed mix is:

- Building 1: 7 x 1 bedroom, 26 x 2 bedroom; 14 x 3 bedroom
- Building 2: 6 x 1 bedroom; 16 x 2 bedroom
- Building 3: 20 x 1 bedroom; 26 x 2 bedroom
- Building 4: 8 x 1 bedroom; 16 x 2 bedroom

The total breakdown is: 61 X 1 bedroom; 84 x 2 bedroom; 14 x 3 bedroom

Total number of units is: 159 units

The site is fortunately located being in close proximity to Redfern Railway Station whilst numerous bus services also access the town centre, 200-metres to the north along Redfern Street.

Assessment of Traffic and Parking Implications prepared by Transport and Traffic Planning Associates dated August 2010 demonstrates that there is ample availability along Pitt Street to cope with the additional traffic generation.

No upgrade is considered to be necessary to any nearby intersections given the spare capacity in the road network.

Ample bicycle storage is located within the basement whilst the site is in close proximity to bike routes.

1.13 European and Aboriginal Heritage

Considerable investigation at the Concept Stage has been undertaken by Weir and Phillips Heritage Consultants (refer to Appendix H: Heritage Impact Assessment). An interpretation room has been incorporated into the scheme within the lower level of the major building being retained on the site (Building 1). The siting of this room adjacent to the street entry and publicly dedicated open space area is appropriate as it will be readily appreciated. Other features of the site which will be retained include the predominant form of Building 1 as well as the colonnade along the eastern side of Building 2 while the well in the basement is also to be preserved.

1.14 Ecologically Sustainable Development (ESD)

The proposal will adopt best practice environmental features in terms of passive design The BASIX Certificate (refer to Appendix P: BASIX Certificate) will ensure that construction and ongoing operation phases of the development incorporate ESD principles.

The orientation and design of development minimises the need for mechanical heating and cooling and artificial lighting. All units receive good access to sun, natural or cross ventilation whilst also having good internal amenity in relation to visual and acoustic privacy.

The majority of units enjoy a northern orientation with only 15% of living areas having a southern orientation. The proposal scheme maximises the number of dual aspect ensuring solar access and natural ventilation to units.

A large proportion of the units also achieve cross ventilation, whilst those which do not, have shallow unit depths, thereby easily accessing natural ventilation.

The proposed development will involve efficient waste management, by minimising and recycling in the demolition, construction and operational phases of development. Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.

Materials will be selected with appropriate thermal mass and the development will be insulated and provided with shading devices.

All WCs and garden beds will be irrigated by water collected from the roofs of the development (captured and collected in rainwater tanks).

Car dependency will be reduced by the provision of facilities for cyclists in the basement levels and the location of the development being in close proximity to cycling routes and different modes of public transport.

1.15 Contributions

In May 2007, the Minister for Redfern-Waterloo adopted the Redfern-Waterloo Authority Contributions Plan for the levying of development contributions for the provision of public facilities and infrastructure within the Redfern-Waterloo Authority's Operational Area, and therefore includes the subject site.

Under Clause 8 of the Contributions Plan, the Minister may impose, as a condition of consent to the carrying out of development to which the Plan applies, a requirement that the proponent pay a development levy of 2% of the proposed cost of carrying out the development, excluding the costs of development that is an adaptive reuse of a heritage item.

A s94A levy will therefore be calculated, in accordance with s25J of the EP&A regulation 2000, for the proposed development.

Development of the site is also subject to the Redfern Waterloo Authority Affordable Housing Contributions Plan 2006. The contribution rate is applicable to the additional GFA of the new development. In this instance, the rate will apply to additional GFA. The floor area of the existing hospital is 13,191m². The GFA of the proposed development is 13,787.51m². The additional GFA is therefore 596.5m².

1.16 Drainage and Flooding

No flooding issues have been identified on the site. The site slopes down from east to west (Pitt Street frontage to rear), however the slope is not severe which ensures that the site can be naturally drained to the north-west corner of the site. Refer to Appendix F: Stormwater Plan prepared by Green Arrow.

1.17 Services

Given that the site was formerly an operational hospital until relatively recently (2000), the site is well served by utilities. A Hydraulic and Fire Services Scheme, dated May 2007, has been prepared by Armstrong Consulting Engineers (refer to Appendix O: Hydraulic and Fire Services Scheme). The report contains a preliminary assessment of infrastructure and services for the proposed development, including a comprehensive investigation of hydraulic and fire services. This preliminary investigation identifies no significant constraints to the site that would hinder the delivery of the Project and subsequent use of the site for residential and open space purposes.

Moreover consultation has been undertaken with Sydney Water. Sydney Water have provided on-site detention requirements in relation to the proposed development (refer to Appendix S: Services Letter).

2 Key Points

Location	134-144 Pitt Street, Redfern. The property (former Rachel Forster Hospital Site) is legally described as Lot 7 DP 664804.
Site Area	Total site area is 6,923m². The site has street frontages to Pitt Street (96 metres) and Albert Street (76 metres).
Site Features	The site is occupied by various disused former hospital buildings. The siting of the main buildings are configured in the structure of an 'H' shape. The topography of the site slopes towards the southwest with a gradual fall of approximately 3 metres.
Zoning	Residential – Medium Density.
Planning Controls and Policies	There are a range of planning controls and policies including: - SEPP (Major Projects) 2005 and associated guidelines; - SEPP 55 Remediation of Land; - SEPP 65 (Design Quality of Residential Flat Buildings); - SEPP (Building Sustainability Index) BASIX; - Standard Instrument (Local Environmental Plans) Order 2006; - Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy; and - Redfern-Waterloo Built Environment Plan (Stage 1) August 2006 (BEP).
Project Application	This environmental assessment is project approval.
Development Yield	159 residential units.
Planning and Design Principles	A range of planning and design principles have been developed including: - Provision of a proposal in accordance with the Concept Plan whilst improving the internal amenity of the units where possible without significantly altering the approved building envelope; and - The adaptation of the heritage listed colonnade, retention of seven level southern building and provision of the central communal open space area are consistent with the main features of the Concept Approval.
Heritage	Weir and Phillips has been appointed to undertake a heritage assessment for the site whilst also providing in relation to the adaptation of the colonnade and other general design features.
Traffic and Access	The proposed development will include a connection with the external road network via Pitt Street. A traffic report prepared by TTPA accompanies the application.
Landscaping	Isthmus have prepared a landscape plan for the site in accordance with the approved concept plan whilst incorporating greater detail.

3 Background

3.1 Introduction

This environmental assessment is submitted to the Department of Planning (DOP) under Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) following the Minister for Planning's determination that the proposed development at 134-144 Pitt Street, Redfern is considered a Major Project. Consequently, the Minister for Planning is the consent authority.

The assessment has been prepared by ABC Planning Pty Ltd in collaboration with Architect; Urban Design; Landscape Architect; Engineers' and Heritage Consultants. The report has been prepared on behalf of the landowner Kaymet P/L. The project team has also consulted with the DoP and Redfern-Waterloo Authority in the preparation of this submission.

3.2 Project team

A new project team has been appointed to manage the development of the project application. The team includes:

- ABC Planning for planning and BASIX;
- Architecture and Building Works for architectural plans;
- Urbis for urban design services;
- Isthmus for landscape architecture plans;
- Weir and Phillips for heritage; and
- TTPA for traffic and parking

3.3 Current proposal

The current proposal involves use of the site for medium density residential development and public open space. The project application seeks approval for the maximum floor space permitted under the FSR control of 1.99:1. Based on the site area of 6,923 m², this equates to a gross floor area of 13,787.51m². The project application also seeks consent for the siting, height and building envelopes for the proposed development. The proposal seeks to retain the existing 'H' configuration of the existing Hospital buildings, whilst extending the height of Buildings '1' and '4'.

4 Site Analysis

4.1 Site description and site location

The subject site is located at 134-144 Pitt Street, Redfern at the former Rachel Forster Hospital. The site is legally described as Lot 7 DP 664804 and is bounded by Albert Street to the north, Pitt Street to the east, residential properties to the south and residential properties to the west. The total site area is approximately 6,923 m^2 and has frontages to Albert Street (76 metres) and Pitt Street (96 metres).

The topography of the site slopes towards the southwest by approximately 3 metres. Along with the slope, the western side of the site is at a lower level then Albert and Pitt Streets.

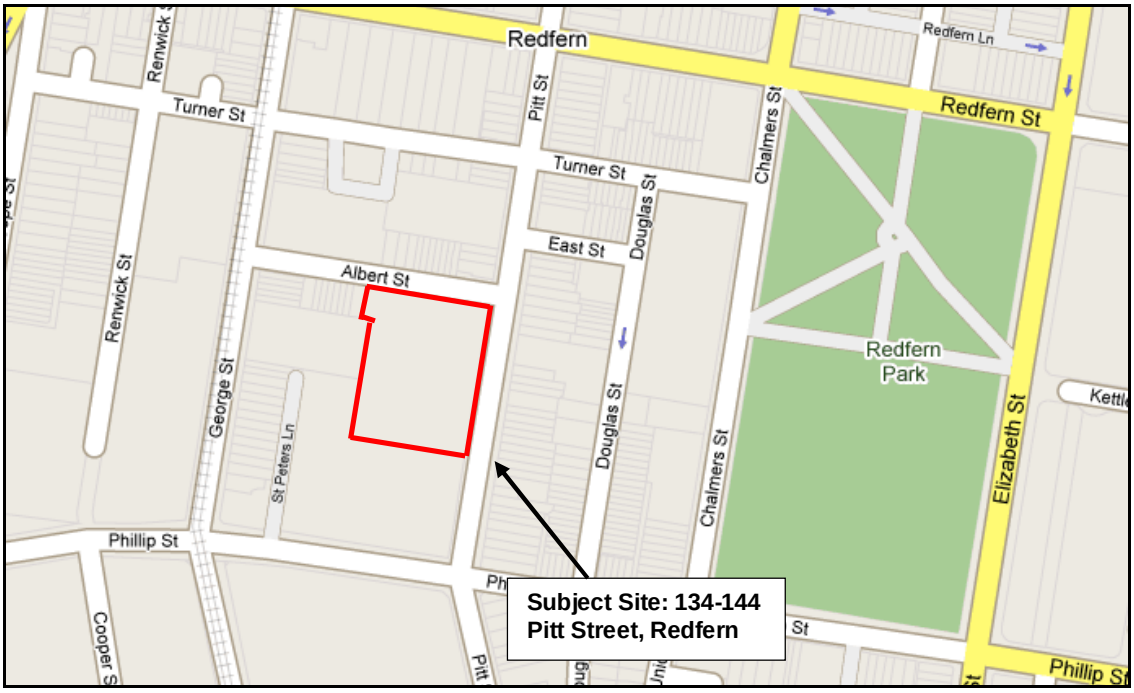

Figure 17: Site location

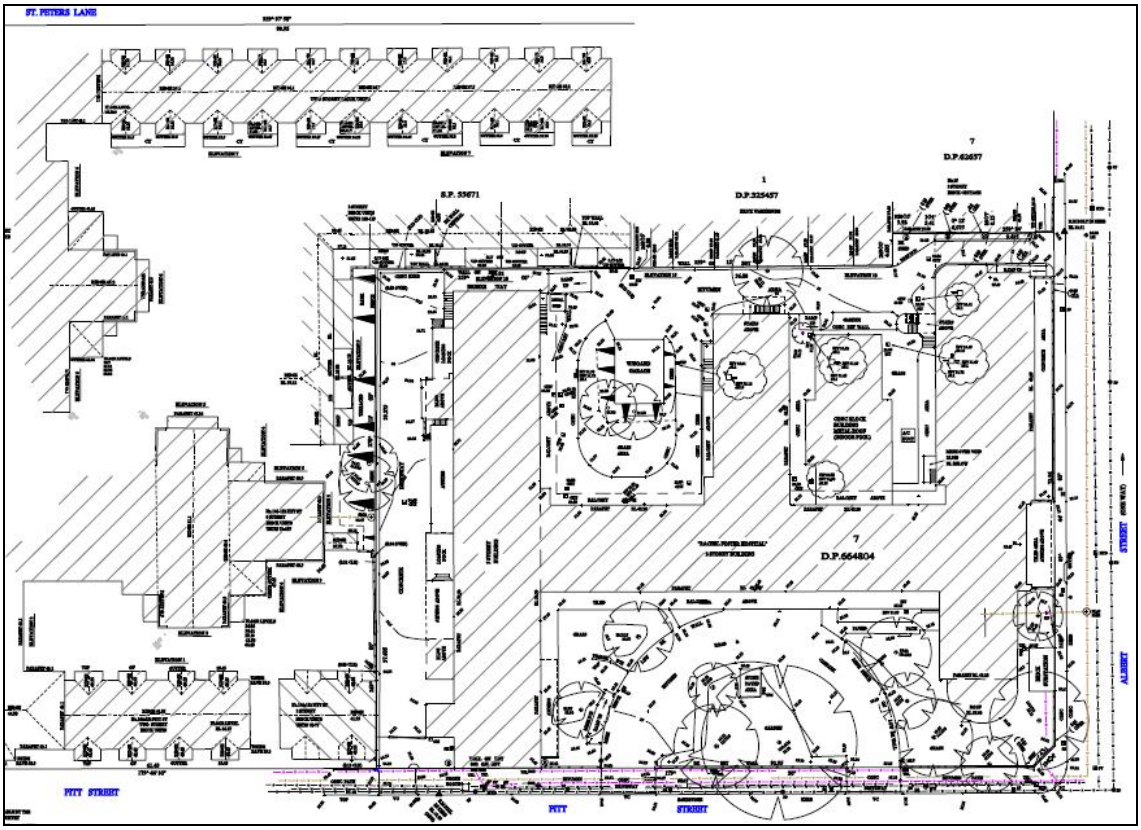

Figure 18: Site survey plan

Figure 19: Aerial map

The Site Analysis prepared by Architecture and Building Works below illustrates the summer sun, autumn and spring sun, winter sun, summer prevailing winds, winter prevailing winds and overland flow path.

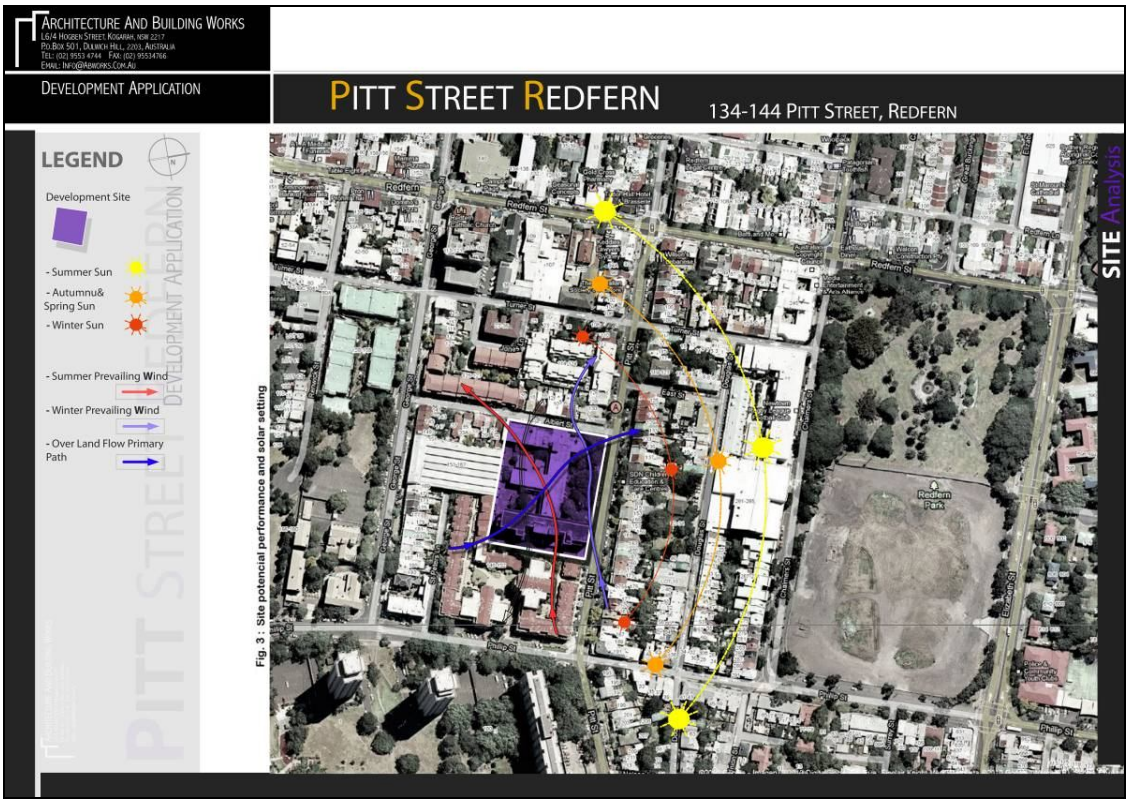

Figure 20: Site analysis

As illustrated in site location map below, the former hospital is located within an established residential area and is surrounded by housing. The site is well located in terms of access to employment, transport and a range of services making it ideal for redevelopment for residential purposes. The site is situated within 3km of the Sydney CBD and located within 550m of Redfern railway station and 200m of bus services. Local shops and services located on Redfern Street and Regent Street are within 200-300m of the site, whilst Redfern Park and Oval are within 250m of the site. The Australian Technology Park is located approximately 750m west of the site. Other parks and open spaces in close proximity to the subject site include Redfern Park to the east, Cook Community Garden to the south, Reconciliation Park to the north and a park on Cope Street, Redfern, to the west of the site.

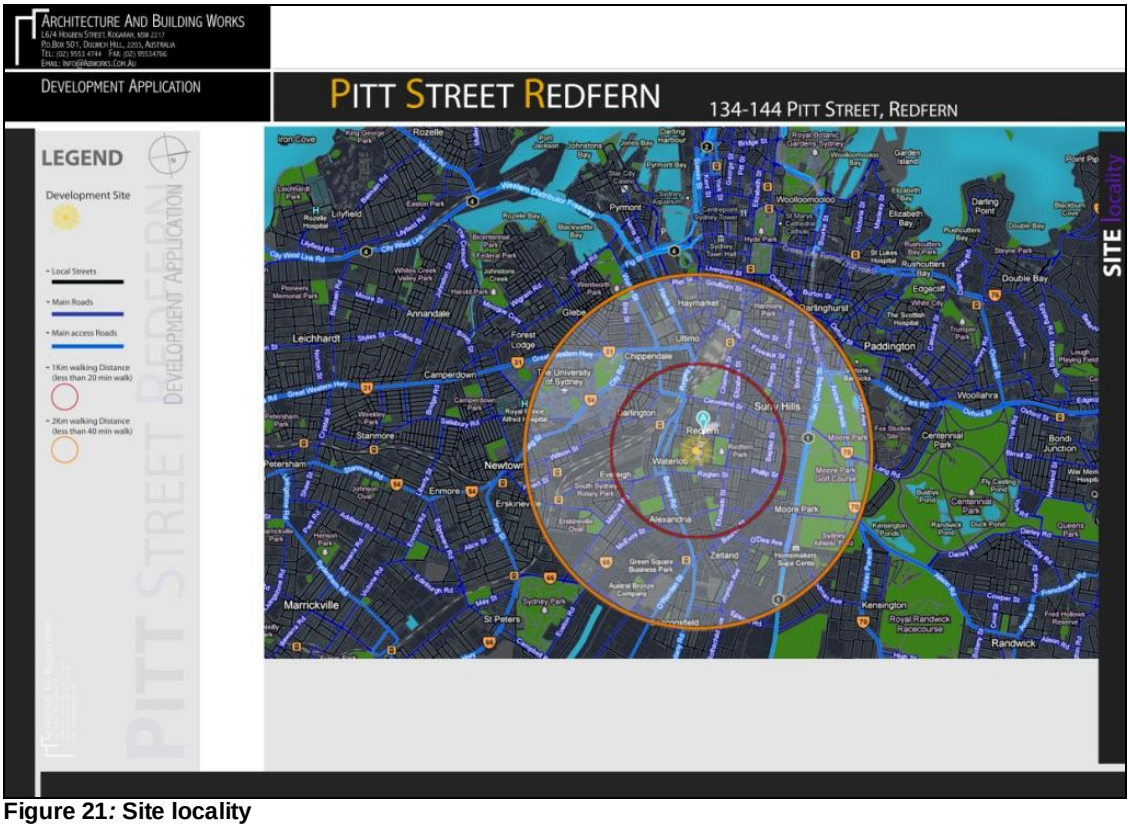

Figure 21*:* Site locality

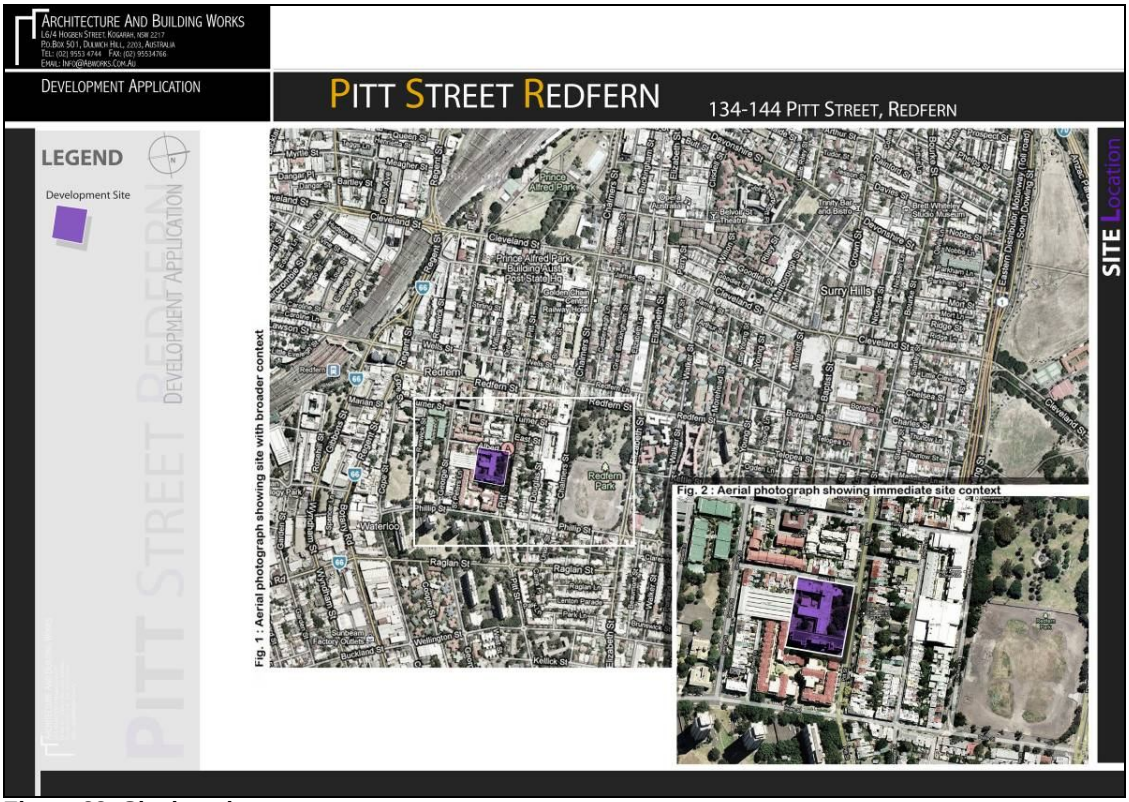

Figure 22*:* Site location map

4.2 Existing development

The Rachel Forster Hospital was officially opened in December 1941. The Hospital was designed by Leighton Erwin Architects. Staff occupied the new Hospital on 15 December 1941 with patients being moved into the Hospital on 25 February 1942. The Rachel Forster Hospital continued to offer a wide range of services until it closed down in 2000. The remaining staff and facilities were transferred to Prince Alfred Hospital, Camperdown.

Currently, the site contains assorted former hospital buildings. The siting of the former hospital buildings are in the shape of an 'H' (Figure 2). There is another building, which extends out from the centre of the 'H' structure, to the west. There is also a detached weatherboard garage and a detached concrete block building occupying the site.

Building 1, a five storey building, exists along the southern boundary of the site. Due to the topography of the site an additional sub-basement level for Building 1 is exposed to the west. As a result, Building 1 appears as a six storey building.

Building 1 is linked to a central two storey building, referred to as Building 2, which fronts Pitt Street. Building 2 appears as a two storey building from Pitt Street, with an additional basement level exposed to the west. Another two to three storey building, referred to as Building 3, fronts Albert Street, and is also connected to Building 2.

Vehicular access to the site is via the driveway off Pitt Street, a driveway in the north-western corner of the site off Albert Street, and a driveway to the south-eastern corner off Pitt Street. Car parking on the site is limited to the open space areas of the site including the driveway off Pitt Street, the concrete surface along the southern boundary, and the areas within the site.

Figure 23: View of the existing Rachel Forster Hospital from Pitt Street, looking south

Figure 24: View of the existing Rachel Forster Hospital from Pitt Street, looking north

Figure 25: Existing colonnade of the front building facing Pitt St

Figure 26: Buildings on the subject site

Figure 27: View looking north over the subject site

4.3 Surrounding development

The surrounding residential development is characterised by terrace dwellings to the north and east and medium and high density housing to the west and south. Development along Albert and Pitt Street are characterised by two storey terrace houses. The southern boundary of the site is adjoined by a modern residential development up to six storeys in height.

North

Figure 28: Residential dwellings along Albert Street facing the site

Figure 29: Residential dwellings along Albert Street facing the site

Figure 30: Development to the north of the subject site along Pitt Street

East

Figure 31: Residential dwelling adjoining the site along Pitt Street

Figure 32: Mixed use dwelling across Pitt Street

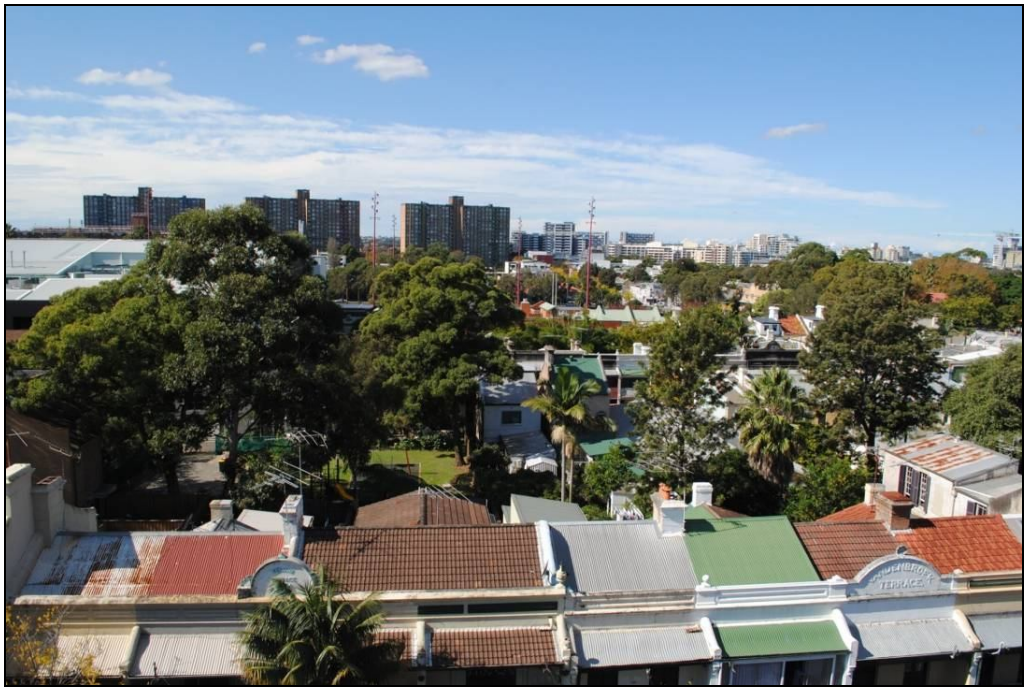

Figure 33: Development to the east of the subject site

South

Figure 34: Residential dwellings adjoining the site to the south

Figure 35: Residential dwellings adjoining the site to the south

Figure 36: Residential dwellings adjoining the site to the south and the blank wall that presents to the site

Figure 37: Development to the south of the subject site along Pitt Street

West

Figure 38: Residential dwelling adjoining the site along Albert Street

Figure 39: Development adjoining the site to the west

Figure 40: Development adjoining the site to the west

Figure 41: Development adjoining the site to the west

5 Proposal Details

5.1 Project Overview

Project application approval is sought from the Minister of Planning for the redevelopment of the former Rachel Forster Hospital Site for residential and open space purposes.

5.2 Land Use

The project application proposes to use the site for medium density residential development contain 159 residential units and public open space.

5.3 Density

The project application seeks approval for a FSR control of 1.99:1. Based on the site area of 6,923m^2, this equates to a gross floor area of 13,787.51m^2.

5.4 Building Heights and Envelopes

Building 1

- Is an existing building located adjacent to the southern boundary;
- Is proposed to be retained and adapted including new additions along the southern façade;
- Additional level above the existing roof level of the building;
- Including the basement level, the building will have a total overall height of 6 storeys;
- The building will have a total height of RL 56.70 (excluding plant equipment),
- Is proposed to contain 67 units;
- Wall height is approximately 23 metres above the existing ground level; and
- Existing setbacks will be retained with the exception of the southern setback:
    - Eastern: Nil
    - Western: 3m
    - Southern: 6m

Building 2

- A new three storey building is proposed to be built on the western side of the existing colonnade (which is to be retained);
- The building will reach a total height of RL 45.20 (excluding plant equipment),
- Is proposed to contain 22 units;
- The building footprint will measure 16 metres by 36 metres; and
- The proposed setbacks and separation will be:
    - Eastern (Pitt St): 24 metres
    - Building 1 (South): 6.5-9 metres
    - Building 3 (North): 6.5-9 metres
    - Building 4 (West): 10 metres

Building 3

- A new 4 storey building is proposed to be built along Albert Street;
- The building will be raised at the corner of Pitt and Albert Street to maintain solar access and natural light into the lower levels;
- The building will reach a total height of RL 44.95 (excluding plant equipment);
- Is proposed to contain 46 units;
- The building footprint will measure 15.5 by 75.9 metres; and
- The proposed setbacks and separation will be enforced:
    - Eastern (Pitt St): Nil
    - Northern (Albert St): 3.2 metres
    - Western: Nil
    - Buildings 2 and 4: 7-9 metres

Building 4

- A new three storey building is proposed to be built opposite Building 2 and located on the Western boundary;
- The building will reach a total height of RL 44.50 (excluding plant equipment);
- Is proposed to contain 24 units;
- The building footprint will measure 16 metres by 36 metres;
- The proposed setbacks and separation will be enforced:
    - Western (Pitt St): 4 metres
    - Building 1 (South): 6.5-9 metres
    - Building 2 (East): 10 metres
    - Building 3 (South): 7-9 metres

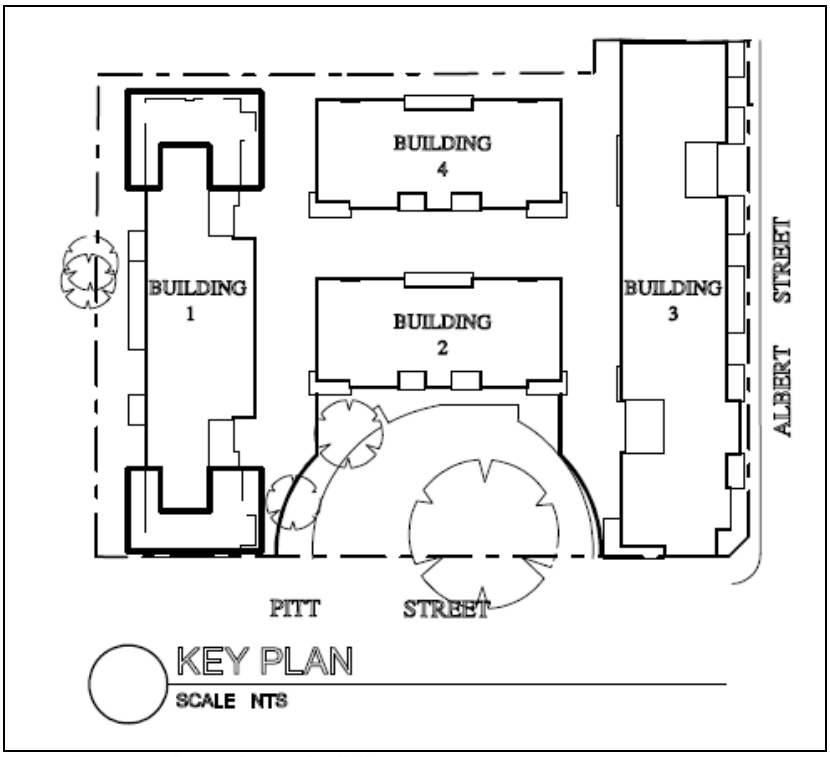

Figure 42: Proposed 'H' configuration of buildings

5.5 Open Space

The project application proposes that the area of open space on the eastern boundary of the site fronting Pitt Street be dedicated to the Sydney City of Council as public open space.

5.6 Landscaping

Similar to the Landscape Concept Diagram and Principles prepared by Oculus for the Concept Plan, Isthmus have prepared the Landscaping plan for the Project Application, refer to the figure below.

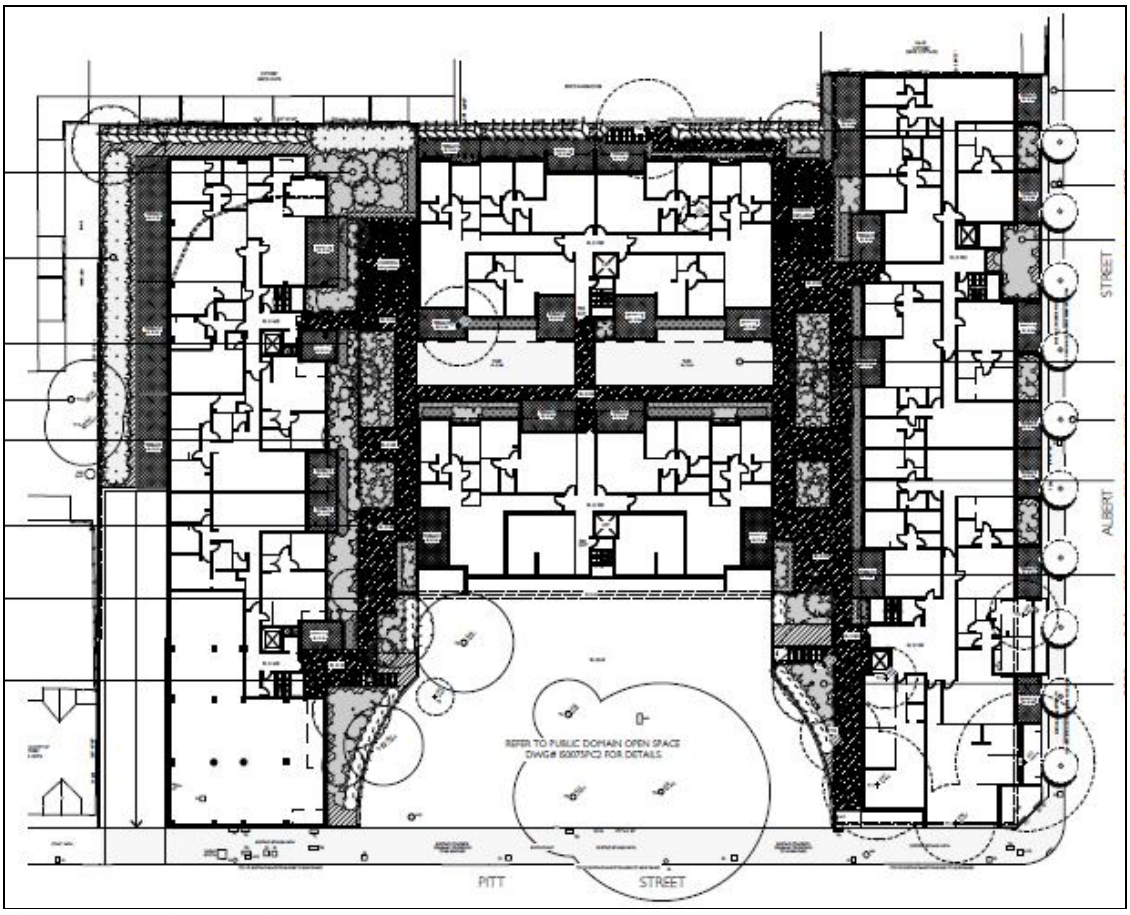

Figure 43: Landscape plan

6 Director General's Environmental Assessment Requirements

The table below illustrates section of this report which specially address the key issues identified in the Director General's Environmental Assessment requirements for the project.

KEY ISSUES	ASSESSMENT
Relevant EPIs, Policies and Guidelines Address planning provisions applying to the site, including permissibility and the provisions of all plans and policies including:	
SEPP (Major Projects) 2005 Schedule 3 – Part 5 The Redfern–Waterloo Authority Sites and in particular the Design excellence provisions of clause 22 of this Part;	Section 7.1 State Environmental Planning Policy (Major Projects) 2005
SEPP (Building Sustainability Index: BASIX) 2004;	Section 7.4 State Environmental Planning Policy (Building Sustainability Index) BASIX
SEPP 55 - Remediation of Land;	Section 7.2 State Environmental Planning Policy 55 – Remediation of Land
SEPP 65 - Design Quality of Residential Flat Development;	Section 7.3 State Environmental Planning Policy 65 (Design Quality of Residential Flat Buildings)
Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy; and Redfern-Waterloo Built Environment Plan (Stage One) August 2006 (BEP).	Section 7.6 Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy
Demonstrate compliance with the development standards set out in clause 21 of Schedule 3, Part 5 – The Redfern-Waterloo Authority Sites of *SEPP (Major Projects)* 2005 (MP SEPP).	Section 7.7 Redfern-Waterloo Built Environment Plan (Stage 1) August 2006 (BEP)
Address the nature and extent of any non-compliance with other relevant environmental planning instruments, plans and guidelines and justify any non-	N/A

compliance.	
Concept Plan	
The EA shall demonstrate consistency with Concept Plan approval MP 07_0029 dated 9 October 2007 and provide justification for any areas of inconsistency.	Chapter 8 Assessment Against the Concept Plan
The EA is to clearly detail in plan and on elevation the approved and the proposed building envelopes.	Section 8.3 Built Form - Building Height
The Concept Plan approval acknowledges a non-compliance with building separation standards identified in the residential flat design code. The EA shall detail any mitigation measures and treatments to address any non-compliance with the building separation standards.	Chapter 8 Assessment Against the Concept Plan
Built Form and Urban Design	
The resulting architectural composition of the buildings shall be sympathetic to the aesthetic significance of the surgery building and the colonnade and the fabric of the heritage items.	Section 9.8 European Heritage and Section 9.1.6 Retention of the Fabric of Heritage Items
The design of the buildings shall address the surrounding built form in particular the predominantly terrace type built form along Pitt and Albert Streets. The design of any corner buildings shall also appropriately address both street frontages.	Section 8.4 Streetscape and Corner Building Design
Cleary identify the fabric of the heritage items that will be retained, and demonstrate that any alterations and additions to heritage items are readily differentiated and appropriately setback to respond to the significance of heritage items and any iconic views to the heritage items.	Section 9.8 European Heritage and Section 9.9 Archaeology
Direct and clear pathways to private entrances shall be identified and where possible direct street access to ground level apartments to provide enhanced safety and street activation.	Section 9.1 Built Form and Urban Design

Demonstrate that the proposed building siting does not have unacceptable level of impacts on overshadowing, privacy and views of the adjoining sites. The design and location of any plant equipment is to be integrated with the building, to minimise visual and acoustic impacts.	Section 9.1 Built Form and Urban Design and Section 8.3 Built Form - Building Height Section 9.1 Built Form and Urban Design, Section 8.4 Streetscape and Corner Building Design and Section 7.1 State Environmental Planning Policy (Major Projects) 2005
Public Domain Orientate new development towards the public domain to provide passive surveillance of public spaces for improved safety. Demonstrate clear transitions and boundaries between private and public spaces and provide details of treatment of the interface, including landscape design. Provide details of linkages with and between other public domain spaces, including Redfern Station.	 Section 9.2 Public Domain Section 9.2 Public Domain Section 9.2 Public Domain
Transport and Accessibility Impacts Demonstrate the provision of sufficient on-site car parking and secure bicycle storage for the proposed use, whilst also having regard to the accessibility of the site to public transport. A Traffic Impact Statement is to be prepared in accordance with the RTA's Guide to Traffic Generating Developments, specifically addressing traffic generation and any cumulative impacts of nearby development as well as any required road / intersection upgrades, access, car parking arrangements, measures to promote public transport usage (including a Travel Access Guide) and pedestrian and bicycle linkages.	 Section 8.7 Parking, Section 8.8 Basement Parking and Section 9.7 Traffic and Access Section 1.8 Car Parking, Section 8.8 Basement Parking, Section 8.7 Parking and Section 9.7 Traffic and Access

European and Aboriginal Heritage A Heritage Impact Statement shall be provided which identifies any items of European heritage significance and any impacts of the proposal. Appropriate measures for the conservation of such items including an Interpretation Plan and archival recording of the site shall be provided. Identify whether the site has any significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance.	Section 7.1 State Environmental Planning Policy (Major Projects) 2005, Section 9.1.6 Retention of the Fabric of Heritage Items, and Section 9.8 European Heritage Section 9.9 Archaeology
Ecologically Sustainable Development (ESD) Detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development and demonstrate how the proposal will address the ESD strategies outlined in the Redfern Waterloo BEP.	Section 1.10 Built Form and Urban Design and Section 9.10 Ecologically Sustainable Development
Contributions The EA shall address Redfern-Waterloo Authority's Contributions Plan 2006 and Redfern-Waterloo Authority's Affordable Housing Contributions Plan 2006 under Section 32 of the Redfern-Waterloo Authority Act 2004 including existing and/or details of any Voluntary Planning Agreement.	Section 1.15 Contributions, Section 8.10 Developer Contributions and Affordable Housing Contributions and Section 9.11 Contributions
Drainage and Flooding Address drainage/flooding issues associated with the development/site, including stormwater, drainage infrastructure and incorporation of Water Sensitive Urban Design measures.	Section 1.16 Drainage and Flooding and Section 9.12 Stormwater Management

Utilities In consultation with relevant agencies, address the existing capacity and requirements of the development for the provision of utilities including staging of infrastructure works.	Sections 1.17 Services and Section 9.13 Utilities
Consultation Undertake an appropriate and justified level of consultation in accordance with the Department's *Major Project Community Consultation Guidelines October 2007*.	Section 9.14 Consultation

Table 2: Table of key issues identified in the Director General's Environmental Assessment requirements

7 Environmental and Planning Legislation

The redevelopment of the site for residential development is defined as development under the Environmental Planning and Assessment Act 1979.

The relevant environmental planning instruments applicable to the proposal include:

- *State Environmental Planning Policy (Major Projects) 2005;*
- *State Environmental Planning Policy 55 – Remediation of Land;*
- *State Environmental Planning Policy 65 (Design Quality of Residential Flat Buildings);*
- *State Environmental Planning Policy (Building Sustainability Index) BASIX;*
- *Standard Instrument (Local Environmental Plans) Order 2006.*
- *Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy*
- *Redfern-Waterloo Built Environment Plan (Stage 1) August 2006 (BEP)*

In addition, the Redfern-Waterloo Built Environmental Plan – Stage One 2006, the Redfern-Waterloo Authority Contributions Plan 2006 and the Redfern-Waterloo Authority Affordable Sites, except for other state environment planning policies.

A discussion of the relevant instruments and policy controls is provided below:

7.1 State Environmental Planning Policy (Major Projects) 2005

The Major Projects SEPP was gazetted on 25 May 2005. The SEPP aims to:

- *Identify development to which Part 3A of the EPA Act 1979 applies;*
- *Identify development that is critical infrastructure under Part 3A;*
- *Facilitate the development, redevelopment or conservation of State Significant sites;*
- *Facilitate service delivery outcomes for public services and the redevelopment of major sites for a public purpose or redevelopment of major sites which are no longer appropriate or suitable for a public purpose; and*
- *Rationalise and clarify the provisions making the Minister the approval authority for state significant sites.*

The SEPP defines certain developments that are major projects under Part 3A of the EP&A Act 1979 and that are determined by the Minister for Planning. The SEPP also identifies that development that, in the opinion of the Minister, is development of a kind referred to in Schedule 3 (State Significant Sites) is declared to be a Project to which Part 3A of the Act applies.

The Major Project SEPP was amended in August 2006 (Amendment No 7) to include specific provisions in relation to development of certain land in Redfern. The relevant provisions are contained in Schedule 3 of the instrument and are discussed below:

Applicability of the SEPP

Part 5, of Schedule 3 of the SEPP identifies the Redfern-Waterloo Authority Sites as State Significant Sites and Clause 5 identifies that Part 3A of the Act applies to development with a capital value of more than $5 million within the Redfern-Waterloo Authority Sites.

The former Rachel Forster Hospital site is identified within Map 3 to this Schedule and its redevelopment will have a capital value in excess of $5 million. Consequently, the proposed development is a Major Project subject to the provisions of Part 3A of the Act.

It is important to note that Clause 2 of Part 5, Division 1 of Schedule 3 of the SEPP (Major Projects) states that definitions are as per the meanings prescribed by the Standard Instrument (Local Environmental Plans) Order 2006. Clause 3 of the SEPP (Major Projects) provides that all other environmental planning instruments do not apply to the Redfern-Waterloo Authority sites, except for other State Environmental Planning Policies.

The site is identified as being zoned Residential – Medium Density Residential as shown on the map marked "Redfern-Waterloo Authority Sites Zoning Map".

Clause 14- Objectives of the Zone

Part 5, Division 3 of Schedule 3 identifies the provisions relating to development of Redfern-Waterloo Authority Sites, in particular Clause 7(2) requires the consent authority to consider each of the objectives for development within a zone when determining an application.

(1) The objectives of the Residential Zone – Medium Density Residential are as follows:

- *(a) to provide for a range and variety of housing types in the Zone;*
- *(b) to allow for other types of development to provide facilities or services to meet the day to day needs of residents in the local area;*
- *(c) to enable other development that is compatible with housing;*
- *(d) to ensure the vitality and safety of the community and public domain;*
- *(e) to ensure that buildings achieve design excellence;*
- *(f) to promote landscaped areas with strong visual and aesthetic values to enhance the amenity of the area.*

(2) Development for any of the following purposes may be carried out on land within the Residential Zone – Medium Density Residential only with development consent: boarding houses; child care centres; community facilities; dual occupancies; dwelling houses; group homes; health consulting rooms; home industries; multi-dwelling housing; neighbourhood shops; places of public worship residential flat buildings; seniors housing; shop top housing; telecommunications facilities; temporary structures.

(3) Except as otherwise provided by this Policy, development is prohibited on land within the Residential Zone – Medium Density Residential unless it may be carried out under subclause (2).

Assessment of the proposal in relation to the zone objectives: The site is zoned Residential – Medium Density. The project seeks to redevelop the site for residential development, which is permissible. The proposal satisfies the objectives by providing a range of housing types including 1, 2 and 3 bedroom units in low and medium rise apartment buildings. There are a range of unit aspects and layouts which also promotes housing choice. The combination of units overlooking Pitt and Albert Streets as well as the public open space along the Pitt Street frontage will assist in providing vitality to the public domain which is in accordance with the objectives of the zone.

The casual surveillance afforded from the units overlooking the public domain will also assist with general community safety which is another objective of the zone. It is considered that the co-ordinated design approach with input from Urbis and Weir and Phillips Heritage Architects in association with Project Architects Architecture and Building Works has resulted in a desirable urban design outcome for the site.

The adaptive re-use of Building 1 which is the landmark building on the site is considered to have been achieved in a positive manner in terms of retention of the character of the building whilst adapting from a hospital use to residential apartments.

The buildings have been designed to maximise northern solar access to living areas with single aspect apartments being minimised. The provision of single level apartments in preference to cross-over apartments is considered to be desirable in terms of internal amenity and access to a broader range of the community.

The submitted landscape plan is also considered to enhance the aesthetic appeal of the development through the provision of the substantial public open space area along Pitt Street as well as the communal and private open space areas throughout the site.

Design excellence has been demonstrated in the project scheme through appropriate design, layout, amenity, articulation, presentation to street frontages, ecological sustainability and quality materials and finishes.

Clause 21- Height, floor space ratio and gross floor area restrictions

The maps designate an FSR of 2:1 across the site while the heights that apply include:

- 3 storeys along the Albert Street building frontage
- 6 storeys for the remainder of the site as shown below

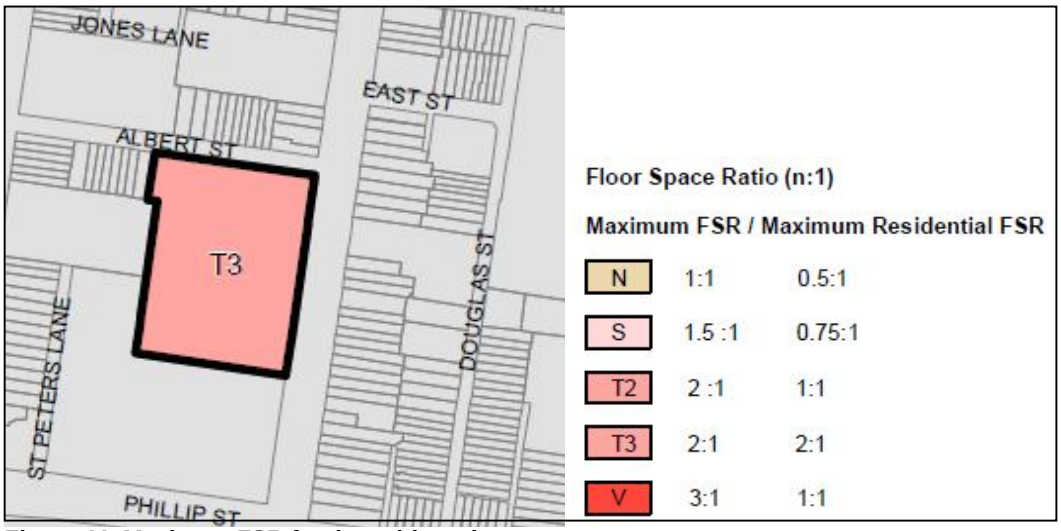

Figure 44: Maximum FSR for the subject site

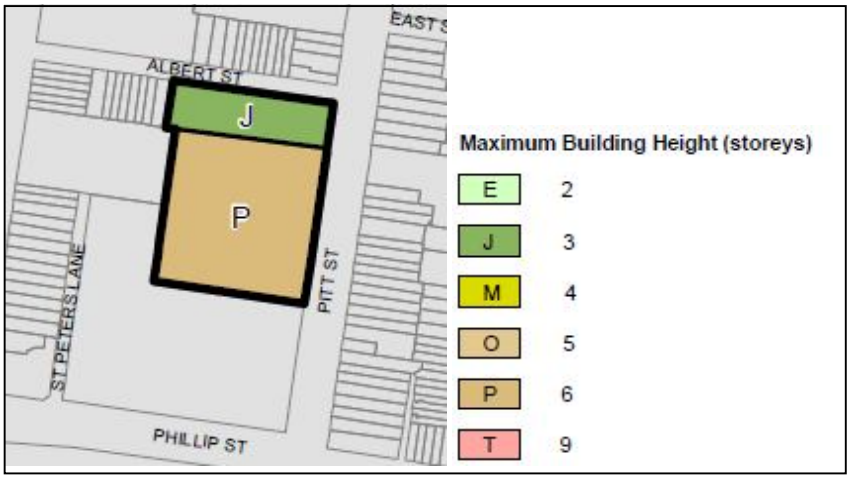

Figure 45: Maximum building height for the subject site

Assessment: As outlined in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"As with the approved concept plan, the proposed scheme has been designed such that there is a 'stepping down' of building heights across the site. Building 1 is the tallest building on site at 6 storeys, being an adaptive re-use of the existing surgery wing building. Buildings 2, 3 and 4 are three storeys above ground level, providing an overall transition in height between Building 1 and the general scale and form of buildings along Pitt and Albert Streets."*

Generally, the proposed buildings heights are consistent with those of the approved concept plan, with some more site responsive variations that are discussed in Section 9.1.4 Building Height of this report.

It is noted that the proposed scheme will achieve a greater yield than that achieved in the Concept Plans, i.e. an increase in units from 150 to 159, yet the proposed scheme will have an FSR of 1.98:1, being lower than the maximum allowable FSR of 2:1.

Clause 22- Design excellence

(1) Consent must not be granted to a new building or to external alterations to an existing building unless the consent authority has considered whether the proposed development exhibits design excellence.
(2) In considering whether proposed development exhibits design excellence, the consent authority must have regard to the following matters:

(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
(b)whether the form and external appearance of the building will improve the quality and amenity of the public domain,
(c)whether the building meets sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency,

Assessment:

Architectural design

It is considered that the proposed external treatment to the new and existing buildings as well as the internal design layouts represent a high standard of architectural design and will improve the quality and amenity of the public domain, refer to the photomontages and materials sample boards below. The proposal will be a positive contribution to the existing state of the site as well as to the broader locality.

Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.

The location, layout and design of the units ensures that all units receive good access to sun, natural or cross ventilation whilst also having good internal amenity in relation to visual and acoustic privacy.

Figure 46: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

Figure 47: Photomontages of the subject site (as viewed from Pitt Street).

Figure 48: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

Figure 49: Photomontages of the subject site (as viewed from Pitt Street).

Figure 50: Photomontages of the subject site (as viewed from the public open space fronting Pitt Street).

Figure 51: Material sample board

Sunlight

As further detailed in Section 7.3 below, given the location of the subject site and retention of existing heritage elements, the proposed solar access achieved for the proposed units is considered acceptable. 120 out of the 159 proposed units are either north-facing or dual aspect units, ensuring solar access is maximised.

Sunlight reaches the majority of lower floor units as show in the figure below. The RL of the lower floor of the proposed development is 31.9m, whereas the RL of the lower floor of the approved concept plan is 31.65m. The proposed development therefore raises the lower floor level by 0.25m, allowing for greater sunlight to access the units.

Figure 52: Solar access for the lower floor units

The envelope of Buildings 2 and 4 inhibit the solar access of Building 1. Building 1 has one lower ground floor unit and two units per floor which are single-aspect apartments with a southerly aspect.

Plans demonstrating the solar access for each floor are contained in Appendix E: Solar Access Diagrams. These plans demonstrate that all units in the central Buildings 2 and 4 have northern, eastern and western aspects.

Building 3 contains three units that have dual aspects on the lower floor (Units 102, 105 and 108). Four units within Building 3 have sole aspect to the north. These units have broad frontages and a high glazing to floor area ratio as the units have a shallow depth of 6.12m, whilst having outdoor north facing terraced areas with a depth of 3.12m. Three of the units in Building 3 are single-aspect apartments with a southerly aspect (Units 101, 106 and 107). These units also have open aspects to the south to communal landscape gardens.

The table below demonstrates that that the proposed scheme provides more units with solar access than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	Concept Plan
Units	98units/159units	91units/150units
Total	62%	60%

Table 3: Comparison of the number of units that receive 2 hours of solar access on the winter solstice in the proposed scheme and concept plan

Natural ventilation

As further detailed in Section 7.3 below, the Residential Flat Design Code requires 60% of the residential units to be naturally cross ventilated. The table below demonstrates that the proposed scheme meets this requirement and provides more units that achieve cross ventilation than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	Concept Plan
Units	95units/159units	59units/150units
Total	60%	39%

Table 4: Comparison of the number of units that achieve cross ventilation in the proposed scheme and concept plan

Visual privacy

As further detailed in Section 9.5 below, the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states:

> *"The proposed development has been designed taking account of the existing approved concept plan and the arrangement and configuration of the residential apartments. All efforts have been made to ensure consistency between the approved concept plan and the proposed development.*
>
> *There are however significant visual privacy issues and poor residential amenity outcomes evident within the approved concept plan and thus all attempts have been made through the proposed development to 'design out' these issues.*
>
> *Key concerns with the approved concept plan with respect to the lower ground floor (labeled basement in the approved concept plan drawings) of Buildings 1 and 3 include:*
> - *17 units have private open space which directly faces the wall of the car park located between Buildings 1 and 3.*
> - *10 south facing units in Building 1 have principal private open spaces that directly overlook the driveway which runs the length of the sites southern boundary.*

The above concerns have been directly addressed in the new scheme by:
- *The lowering of the basement parking levels, as discussed above, has eliminated the 17 sub-terrain apartments in Buildings 1 and 3.*
- *The driveway access has been reconfigured such that it now does not run for the length of the sites southern boundary, but rather has been lowered such that*

courtyards have been provided for all ground floor south facing apartments in Building 1.

Further, the proposed development predominantly retains the location and size of the existing floor plates of each of the four buildings. It does however adopt appropriate mitigation measures ranging from planter boxes, privacy screens, offsetting of windows in an attempt to maximise visual privacy for residents of the proposed development and adjoining properties."

The building setbacks of the adjoining buildings and proposed buildings will not result in any overlooking of external or indoor living areas to adjoining properties or to units within the site. The existing Heritage Listed Building 1 is considerably setback from the adjoining development to the south, whilst a deep soil landscaped area is proposed as a screen buffer between Building 4 and adjoining development to the west.

The development adjoining the subject site to the south, pictured in the photos below, has a blank façade fronting the proposed development and will be setback between 7m - 12m from the proposed building.

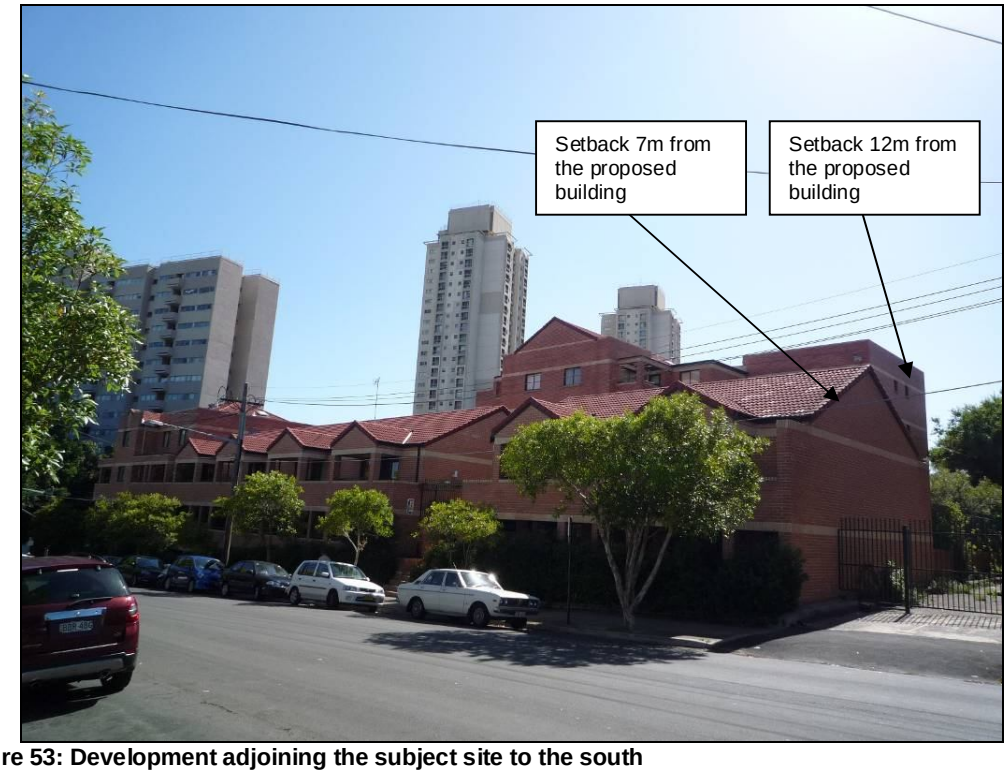

Figure 53: Development adjoining the subject site to the south

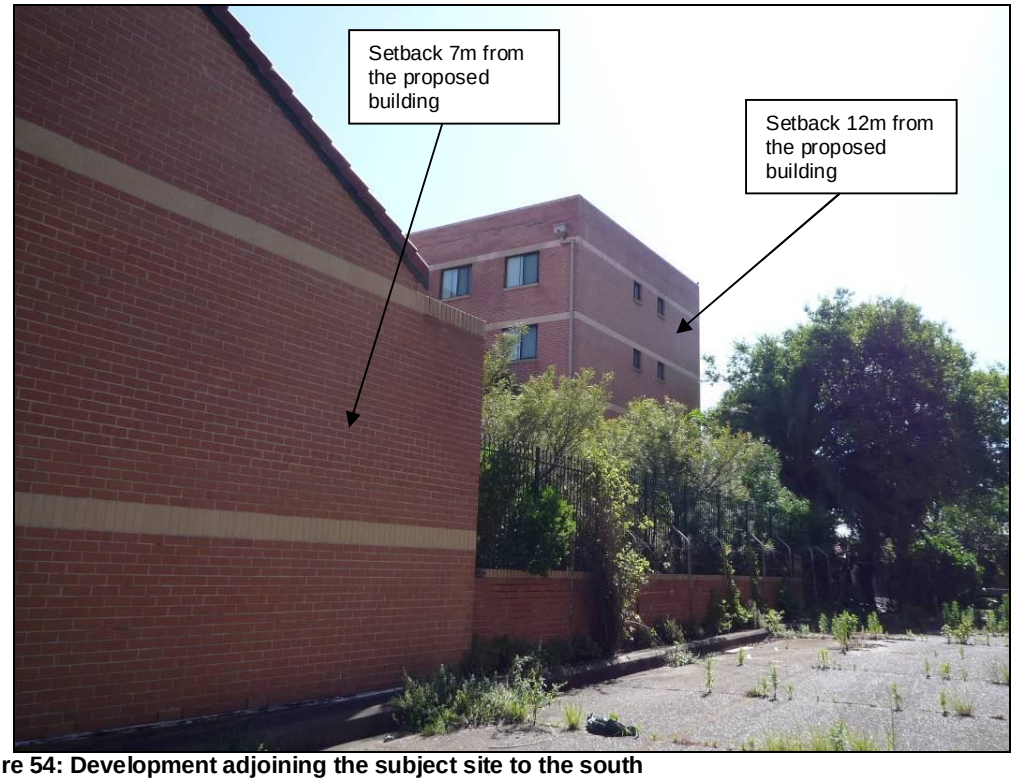

Figure 54: Development adjoining the subject site to the south

Figure 55: Development adjoining the subject site to the south

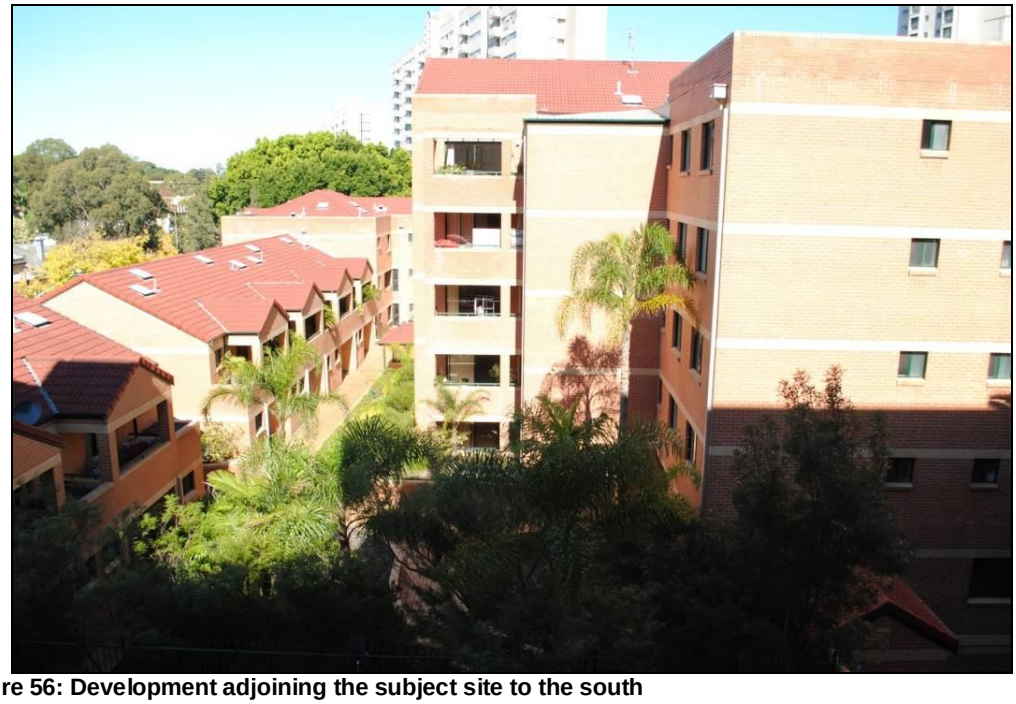

Figure 56: Development adjoining the subject site to the south

The development adjoining the subject site to the west, in the pictures below, has a blank façade fronting the proposed development and will be setback 4m from the proposed building. This 4m setback will consist of deep soil landscaping.

Figure 57: Development adjoining the subject site to the west

Figure 58: Development adjoining the site to the west

Figure 59: Development adjoining the site to the west

Figure 60: Development adjoining the site to the west

Acoustic privacy

The location, layout and design of the units ensures that all units have good internal amenity in relation to acoustic privacy. Acoustic Logic Consultancy prepared an Environmental Noise Assessment for the proposed development, refer to Appendix M: Environmental Noise Assessment. Noise at the site has been measured and noise goals have been set in accordance with the requirements of the local council and relevant statutory/regulatory authorities. Noise emissions from vehicles using the car park ramp have been assessed and will comply with the noise emission requirements provided the following acoustic treatments recommended in the report are implemented:

- A 1.8 metre high fence of Colorbond or masonry construction must be erected along the portion of the southern boundary of the site that is adjacent to the car park ramp.
- Detailed assessment of all mechanical plant should be conducted at CC stage to determine acoustic treatments (if any) required to ensure plant noise does not exceed acoustic criteria.

Safety and security

Both Architecture & Building Works and Isthmus have prepared the project application to ensure that the development is safe and secure for residents and visitors. The proposal will enliven the locality and assist with casual surveillance. Isthmus has designed the communal and private open spaces within the development for passive recreation which will enhance security. The casual surveillance afforded from the units overlooking the public domain will also assist with general community safety

Casual surveillance of the street has been maximised, with units oriented both onto Pitt and Albert Streets. Individual entries are also provided to units on the ground floor in

Building 3, assisting in activation of the street. Blind corners within the development have been avoided.

Resource, energy and water efficiency

The location and orientation of the buildings maximises sunlight, daylight and ventilation to reduce reliance on artificial heating or cooling. The design of the project application is intended to enable the achievement of energy and water efficient reduction targets. The proposal is accompanied by a compliant BASIX certificate (refer to Appendix P: BASIX Certificate).

Clause 27 Heritage conservation

The proposal is accompanied by a comprehensive heritage assessment by Weir and Phillips (refer to Appendix H: Heritage Impact Assessment) who were involved at the concept stage. The consultants were therefore aware of the critical heritage issues and such issues have been considered in the design process for the project application.

This ensures a sympathetic adaptive re-use of the landmark 6-storey building at the southern end of the site, retention of the colonnade along the eastern side of Building 2 as well as the provision of an Interpretation Room in the basement of Building 1. This will allow for appreciation of the site history to occupants as well as visitors on a casual basis. The interpretation room will also recognise and incorporate reference to the well on the site.

Clause 28 - Preservation of trees and vegetation

The proposal seeks to maximise the provision and retention of trees on site. However a number of trees will require removal to facilitate the development and its construction. Tree retention and removal is in accordance with the Arboricultural Assessment and Development Impact report prepared by Guy Paroissien Landscape Matrix Pty Ltd (refer to Appendix Q: Arboricultural Assessment).

The report analysed 19 individual trees or groups of trees on the site and adjoining properties. The report identifies those trees that require removal or are potentially impacted upon by the proposed development, as well as those trees that should be considered for removal. Recommendations on tree protection measures are also included.

The Report concluded,

> *"of the 19 trees assessed, 14 of the trees are in good health, 4 are of moderate health and 1 is in poor health. 2 of the trees assessed are located on the adjoining property to the south (tree numbers 18 and 19). In regard to landscape significance the majority of the trees are either of moderate landscape significance (6 trees) or of low landscape significance (4 trees). 6 of the trees are of moderate to high or high landscape significance and one is considered significant in the landscape. One of the trees is an environmental pest species of no landscape significance.*

Of the 19 trees on the site that have been assessed the following 8 trees require removal to facilitate the proposed developments:
- Tree # 10 Syzigium luehmannii (Small-leaved Lilli Pilli)
- Tree # 11 Lophostemon confertus (Brushbox)
- Tree # 12 Celtis sinense (Chinese Hackberry)
- Tree # 13 Celtis sinense (Chinese Hackberry)
- Tree # 14 Jacaranda mimosifolia (Jacaranda)
- Tree # 15 Plumeria rubra (Frangipani)
- Tree # 16 Ceratonia siliqua (Carob Tree)
- Tree # 17 Celtis sinense (Chinese Hackberry)

2 of these trees (No.s 12 and 16) have been recommended for removal along with a further 2 trees (2 and 5), regardless of the proposal, due to declining health or condition, structural issues relating to the trees or their unsuitability to the site.

In addition to the 4 trees recommended for removal it is recommended replacement planting be implemented to allow for the staged removal of all specimens of Celtis sinense (Chinese Hackberry) from the site due to this species weed status.

In addition to the above it is also proposed to remove the 2 rows of small, semi mature Camellia sasanqua (Chinese Camellia) identified as tree numbers 7 and 8. It is noted that these 2 rows of trees are exempt from protection under City of Sydney Council's Tree Preservation Order as they are below the minimum height for protection under that order of 5 metres.

To facilitate construction of the proposed development the following 3 trees will be potentially affected:
- Tree # 9 Liriodendron tulipifera (Tulip Tree)
- Tree # 18 Glochidion ferdinandii (Cheese Tree)
- Tree # 19 Celtis sinense (Chinese Hackberry)

Given the extent of potential impact to Tree # 9, the existing structural problems and the short Safe Use Life Expectancy (SULE) of the tree, it is recommended consideration be given to its removal. With regard to Trees # 18 and 19, these trees are located on the adjoining property to the south, adjacent to the proposed driveway. Provided the levels of the driveway are maintained the trees can be retained.

The following four (4) trees are recommended for removal due to poor/declining health, structural problems, risk of failure and noxious weed species. Two of the trees (# 12 and 16) are located within the proposed building footprints.

- Tree # 2 Ligustrum sinense (Small-leaved Privet-noxious weed)
- Tree # 5 Cinnamomum camphora (Camphor laurel)
- Tree # 12 Celtis sinense (Chinese Hackberry)
- Tree # 16 Ceratonia siliqua (Carob Tree)

The recommendations of the Arboricultural Assessment and Development Impact report have been incorporated in the proposed landscaping of the site prepared by Isthmus. The retention of large, mature trees within the public open space area along the Pitt

Street boundary will soften the impact of the new built form and provide a garden setting to the street.

7.2 State Environmental Planning Policy 55 – Remediation of Land

Clause 7 of State Environmental Planning Policy No.55 – Remediation of Land (SEPP 65) requires a consent authority must not consent to the carrying out of any development on land unless:

> *(a) it has considered whether the land is contaminated;*
> *(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed to be carried out; and*
> *(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

A Preliminary Contamination Assessment was undertaken by Douglas Partners Pty Ltd in November 2003 for the Concept Plan. Douglas Partners has since prepared a Supplementary Report on Geotechnical Investigation (refer to Appendix K: Supplementary Report on Geotechnical Investigation). The Supplementary Report is based on the geotechnical investigations of the site in November 2003.

The 2003 assessment comprised the drilling of 10 test bores, as follows:

- 3 bores were placed on the southern portion of the site, representing the area proposed to be used as a driveway;
- 3 bores were placed on the eastern portion of the site, representing the area of land proposed to be dedicated to Council for open space use; and
- The remaining bores were located in the western portion of the site, which represents the area to be redevelopment as a carpark and residential use.

Following this preliminary assessment, a subsequent site inspection was undertaken by Douglas Partners Pty Ltd at the site in 2007 for the Supplementary Report. The subsequent review confirmed that no discernible physical changes have occurred at the site since the 2003 assessment. The land use category of the proposed development area remained unchanged and the only substantial change is the area to be developed as open space. Douglas Partners prepared a 'Review of Previous Reports' that included an assessment against the site assessment criteria for recreational open space. Douglas Partners considered that the original recommendations made in the Preliminary Contamination Assessment report are still valid. The proponent will remediate the site in accordance with the Contamination Assessment prepared by Douglas Partners Pty Ltd in November 2003.

The Supplementary Report on Geotechnical Investigation contains comments on the proposed development in regard to excavation, site preparation, proposed pavement areas, proposed sallow footings and floor slabs, safe batter supports, excavation support, retaining wall design, foundations, and pavements.

The Supplementary Report also states that the contamination investigation so far is sufficient for concept design but will need to be supplemented during the design phase to:

- Confirm the existing foundation system used beneath Building 1; and
- Provide ground information along Albert Street frontage.

A Stage 2 Contamination Report will therefore be prepared at the Design Phase which will address the points above and satisfy the provisions of SEPP 55.

7.3 State Environmental Planning Policy 65 (Design Quality of Residential Flat Buildings)

In 2002, SEPP 65 was introduced to improve the design quality of residential flat development in NSW. In accordance with Clause 4, the SEPP applies to development being:

> *(a) the erection of a new residential flat building;*
> *(b) the substantial redevelopment or the substantial refurbishment of an existing residential flat building; and*
> *(c) the conversion of an existing building to a residential flat building.*

The Project Application seeks to redevelop the site for residential development comprising residential flat buildings. SEPP 65 establishes 10 Design Quality Principles that are required to be addressed in the preparation of residential development applications.

A summary is provided in the Table below:

SEPP 65 Principles	**Design Quality Principles**
Principle 1: Context	The local context is characterised by varying building typologies i.e. fine grain terrace houses to the west and northwest, medium grain development bordering the southern precinct of the site, and a large warehouse located to the west of the site. There is however no consistent built form character within surrounding streets and thus the proposal provides a range of building typologies that respect the existing on site buildings, and the form and scale of immediately adjoining properties. The proposal for residential purposes only is consistent with the surrounding context of residential terraces and residential units in terms of the transitional scale from 6 storeys at the southern end down to 3 storeys (above street level) along Albert Street to the north. The site is also well located in terms of access to transport and employment. The proposal responds to its context through the retention of a heritage item and the provision of new buildings that relate to the form and scale of adjoining buildings.
Principle 2: Scale	The project application has maintained the configuration and scale of the approved concept plan in terms of building lengths and height. Building 1 is a heritage item of an established height and scale.

	The overall height of Building 1, whilst not similar to immediately adjoining properties is an established characteristic of the streetscape, and is reflective of the heritage nature of the building. Buildings 2, 3 and 4 are of an appropriate scale and massing relative to the immediately adjoining properties.
Principle 3: Built Form	As proposed in the Concept Plan, Buildings 1, 2 and 3 will maintain the 'H' configuration of the original hospital buildings. Building 4 will be placed towards the rear of the site. As stated above, the form of the buildings are consistent with the Concept Plan and appropriate for the site. Adaptation of the tall building at the southern end of the site successfully modernises the building for residential purposes whilst retaining the architectural character. The proposed scheme improves upon the approved scheme through increased articulation to building facades. Building 1 sought to achieve a better design outcome through the articulation of vertical and horizontal elements to the eastern and western ends of the building. This assists in book-ending the site and ensuring that the building reads as a series of related components as opposed to a uniform building. The built form across the site is proposed to achieve a consistency through horizontal built form elements. This addresses the configuration of the four buildings where Buildings 1 and 3 are situated parallel to each other and separated by Buildings 2 and 4 which also run parallel with each other and perpendicular to Buildings 1 and 3. Buildings 1 and 3 are adequately setback from Buildings 2 and 4, ensuring sufficient spacing between buildings, as well as providing sufficient area designated for public open space.
Principle 4: Density	The density of the site is controlled by the SEPP Major Projects 2005 with a FSR of 2:1 for the site. The proposed scheme will achieve a greater yield than that achieved in the approved plans i.e. an increase in units from 150 to 159. An FSR of 1.98:1 is proposed, being lower than the maximum allowable FSR of 2:1. Based on the site area of 6,923m^2, this equates to a gross floor area of 13,787.51m^2. The proposed density is suitable given its inner city location and proximity to transport.
Principle 5: Resource, energy and water efficiency	The location and orientation of the buildings maximises sunlight, daylight and ventilation to reduce reliance on artificial heating or cooling. The design of the project application is intended to enable the achievement of energy and water efficient reduction targets and as such satisfaction of the BASIX Certificate. Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed. Floor plans demonstrating the internal layout of the buildings indicate maximisation of natural sunlight through north-aspect apartments. The

	plan maximises the number of dual aspect and due north apartments, ensuring solar access and natural ventilation to units. The selection of building materials, mechanical appliances and water management will be addressed at the detailed design stage.
Principle 6: Landscape	Based upon the conceptual landscape prepared by Oculus Landscape Architects, Isthmus has prepared a new design for the project application stage. Under the new design, the landscaping aims to enhance the site, streetscape and neighbourhood character. The proposal incorporates a significant open space area along the sites Pitt Street frontage. The proposed scheme has increased the amount of deep soil planting.
Principle 7: Amenity	The project application has optimised amenity in terms of daylight and sunlight access, particularly into Building 3 with the elevation of the apartments at the lower levels. Private open spaces in the form of balconies and courtyards are provided for all units. A large communal open space area is provided along the Pitt Street frontage of the site. This provides both active and passive recreational opportunities for residents of the development. 120 out of the 159 proposed units are either north-facing or dual aspect units, ensuring natural ventilation and solar access is maximised.
Principle 8: Safety and security	Both Architecture & Building Works and Isthmus have prepared the project application to ensure that the development is safe and secure for residents and visitors. Isthmus has designed the communal and private open spaces within the development for passive recreation which will enhance security. Casual surveillance of the street has been maximised, with units oriented both onto Pitt and Albert Streets. Individual entries are also provided to units on the ground floor in Building 3, assisting in activation of the street. Blind corners within the development have been avoided.
Principle 9: Social dimensions	The project application will increase housing within the Redfern area. The proposal facilitates housing affordability through a mix of units including one, two and three bedroom units. Particularly as the development is undergoing transition, a mix in

	apartment sizes enables the development to cater for different budgets and housing needs. The development will function to encourage a social mix through choice in housing types.
Principle 10: Aesthetics	The proposal has been the subject of co-ordinated input from Urbis as well as Weir and Phillips Heritage Architects who have worked in association with the project architects. This has resulted in an attractive building presentation which substantially lifts the contribution of the buildings on the site. The proposal adopts a desirable palette of materials suited to the inner city location whilst respecting the historical features of the site, in particular the historically significant and prominent Building 1 and the colonnade along the eastern elevation of Building 2. Each building reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, building mass. The proposal incorporates extensive modulation and articulation to building facades, providing an overall reduction in the perceived bulk and scale when compared to the approved scheme.

Table 5: SEPP 65 - 10 Design Quality Principles

Residential Flat Design Code

The following provides a detailed assessment against the following primary development controls of the Residential Flat Design Code.

Building Depth: The maximum apartment building depth permitted by the Residential Flat Design Code is 18 metres (glass line to glass line). The proposed scheme complies with this aspect and proposes buildings with the following depths:

- Building 1 – 16.16m
- Building 2 – 16.21m
- Building 3 – 16.21m
- Building 4 – 15.57m

Building Separations: The Residential Flat Design Code requires separation for buildings up to 4 storeys in height ranging from 6m between non-habitable rooms, 9m between habitable rooms/balconies and habitable rooms, and 12m between habitable rooms/balconies. For buildings between 5 to 8 storeys in height, the separation distances range from 9m between non-habitable rooms, 13m between habitable rooms/balconies and habitable rooms, and 18m between habitable rooms/balconies. The Residential Flat Design Code also allows for separation controls to be varied in response to site and context constraints and setting. The following building separations are proposed:

Buildings	**Building Height**	**Separation**	**Compliance**
Building 1 to Building 2 and 4	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.6m and 9m Between habitable rooms / balconies: 5.6m	Partially
Building 2 and 4	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 10.8m Between habitable rooms / balconies: 10.8m, 10.5m, 9m and 8.8m	Partially
Building 3 to Building 2 and 4	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 8.2m and 8.8m Between habitable rooms / balconies: 7.2m	Partially
Building 1 and adjacent development to the south	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 4.6m, 7.2m, 10.7m and 13m Between habitable rooms / balconies: 12m	Partially
Building 1 and adjacent apartment development to the west	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.1m Between non-habitable rooms: 6.3m	No
Building 4 to adjacent townhouse development to the west	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.6m Between habitable rooms / balconies: 6.5m	Partially
Building 4 to adjacent non-residential warehouse building to the west	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 3.1m, 4.6m and 3.8m	No
Building 3 to	3 storeys	Wall to wall	No

adjacent two-storey brick cottage on Albert Street			

Table 6: Building separations table

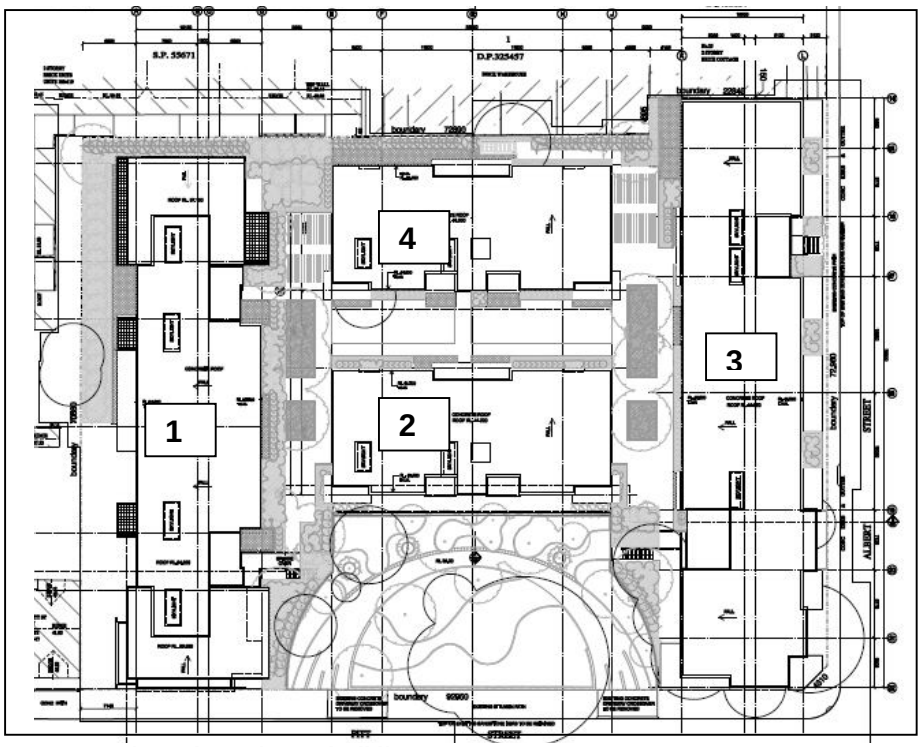

Figure 61: Proposed configuration of buildings

Given the location of the subject site, the retention of existing heritage elements, the location of existing surrounding residential development, and characteristic separation distances of surrounding development in the area, the proposed separation distances of Buildings 1, 2, 3 and 4 from the adjoining developments and within the site is considered acceptable.

Various mitigation measures and treatments have been provided to address the non-compliances with the building separation standards including the restriction of west facing windows from Buildings 2 and 4 towards Building 1. The western facing windows of Building 2 and 4 are highlight and screened windows and the western terraces of Buildings 2 and 4 are equipped vertical louvers to provide additional privacy. Landscaping has also been provided as a buffer between buildings and Buildings 1 and 2 have raise garden beds.

The concept plan approval acknowledges a non-compliance with building separation standards identified in the residential flat design code.

Natural Ventilation: The Residential Flat Design Code requires 60% of the residential units to be naturally cross ventilated. The table below demonstrates that the proposed scheme meets this requirement and provides more units that achieve cross ventilation than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	Concept Plan
Units	95units/159units	59units/150units
Total	60%	39%

Table 7: Comparison of the number of units that achieve cross ventilation in the proposed scheme and concept plan

Daylight Access: The Residential Flat Design Code requires living rooms and private open spaces for at least 70% of apartments in a development to receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas, such as Redfern which is located in the inner city, a minimum of 2 hours maybe acceptable. The Code also requires the number of single-aspect apartments with a southerly aspect (SW-SE) to be limited to a maximum of 10% of the total units proposed.

Given the location of the subject site, retention of existing heritage elements, the proposed solar access achieved for the proposed units is considered acceptable. Sunlight reaches the majority of lower floor units as show in Figure 62.The RL of the lower floor of the proposed development is 31.9m, whereas the RL of the lower floor of the approved concept plan is 31.65m. The proposed development therefore raises the lower floor level by 0.25m, allowing for greater sunlight to access the units.

Figure 62: Solar access for the lower floor units

The envelope of Buildings 2 and 4 inhibit the solar access of Building 1. Building 1 has one lower ground floor unit and two units per floor which are single-aspect apartments with a southerly aspect.

Plans demonstrating the solar access for each floor are contained in Appendix E: Solar Access Diagrams. These plans demonstrate that all units in the central Buildings 2 and 4 have northern, eastern and western aspects.

Building 3 contains three units that have dual aspects on the lower floor (Units 102, 105 and 108). Four units within Building 3 have sole aspect to the north. These units have broad frontages and a high glazing to floor area ratio as the units have a shallow depth of 6.12m, whilst having outdoor north facing terraced areas with a depth of 3.12m. Three of the units in Building 3 are single-aspect apartments with a southerly aspect (Units 101, 106 and 107). These units also have open aspects to the south to communal landscape gardens.

It is noted that the Residential Flat Code allows for 10% of the overall units to be single-aspect apartments with a southerly aspect. The proposed development contains the following single aspect units with a southerly aspect:

Building 3: 3 x 3 = 9 south facing units
Building 1: 5 x 2 = 10 south facing units
TOTAL = 19 south facing units = 12%.

The table below however demonstrates that that the proposed scheme provides more units with solar access than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	**Concept Plan**
Units	98units/159units	91units/150units
Total	62%	60%

Table 8: Comparison of the number of units that receive 2 hours of solar access on the winter solstice in the proposed scheme and concept plan

7.4 State Environmental Planning Policy (Building Sustainability Index) BASIX

In 2004, the BASIX SEPP was introduced to encourage sustainable residential development across NSW. The BASIX SEPP operates in conjunction with the Environmental Planning and Assessment Amendment (Building Sustainability Index: BASIX) Regulation 2004 to ensure the effective introduction of BASIX in NSW. As required by the SEPP, a BASIX Certificate providing commitments to reduce consumption of water, reduce emissions of greenhouse gases and improve thermal performance of all buildings.

A BASIX Certificate accompanies this Project Application (refer to Appendix P: BASIX Certificate), which includes use of a rainwater tank for landscape irrigation and a car wash bay, solar – gas boosted central hot water systems for each unit building and high rating water fixtures and appliances.

7.5 State Instrument (Local Environmental Plans) Order 2006

Standard Instrument (Local Environmental Plans) Order 2006 only applies as the standard instrument for determining the meaning of words of expressions referred to the Major Projects SEPP. The Director General's Requirements for the Concept Plan required that the Environmental Assessment should consider the provisions of the Standard Instrument.

The FSR has been determined in accordance with the definition within the Order.

7.6 Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy

The Metropolitan Strategy is a broad framework and strategic document that outlines a vision for Sydney to 2031.

The Strategy is divided into seven Strategies which are:

(1) Economy and Employment;
(2) Centres and Corridors;
(3) Housing;
(4) Transport;
(5) Environment and Resources;
(6) Parks and Public Places; and
(7) Governance and Implementation.

The subject site is located adjacent to the 'Redfern Centre Precinct of the Sydney City Subregion' area.

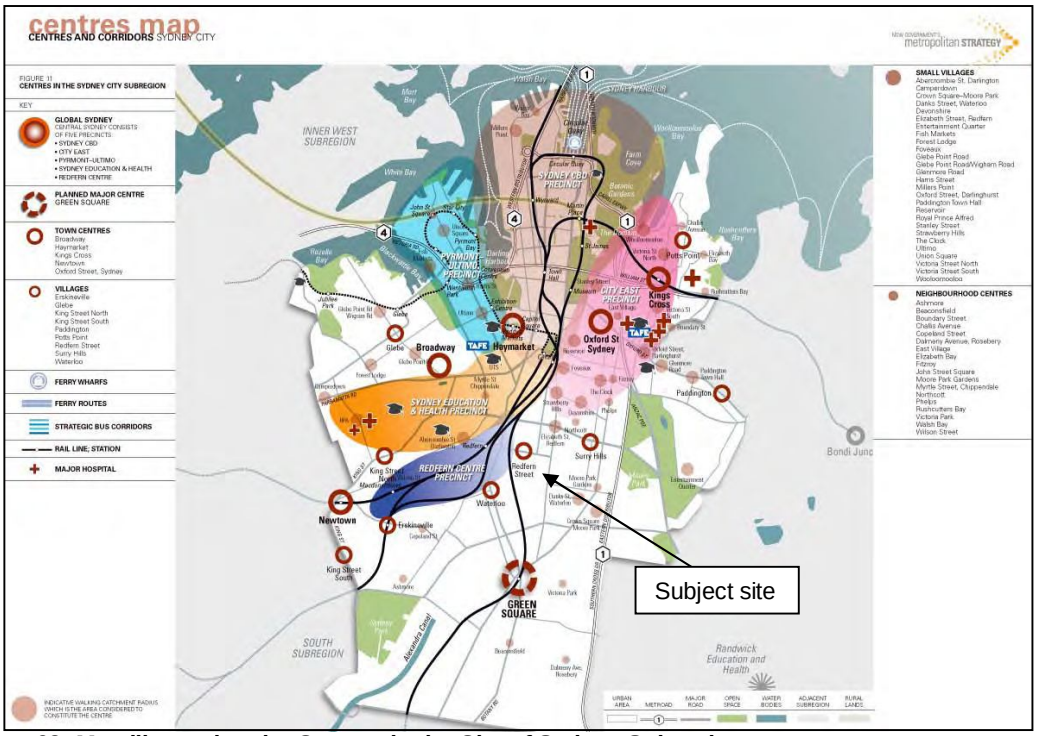

Figure 63*:* Map illustrating the Centres in the City of Sydney Subregion

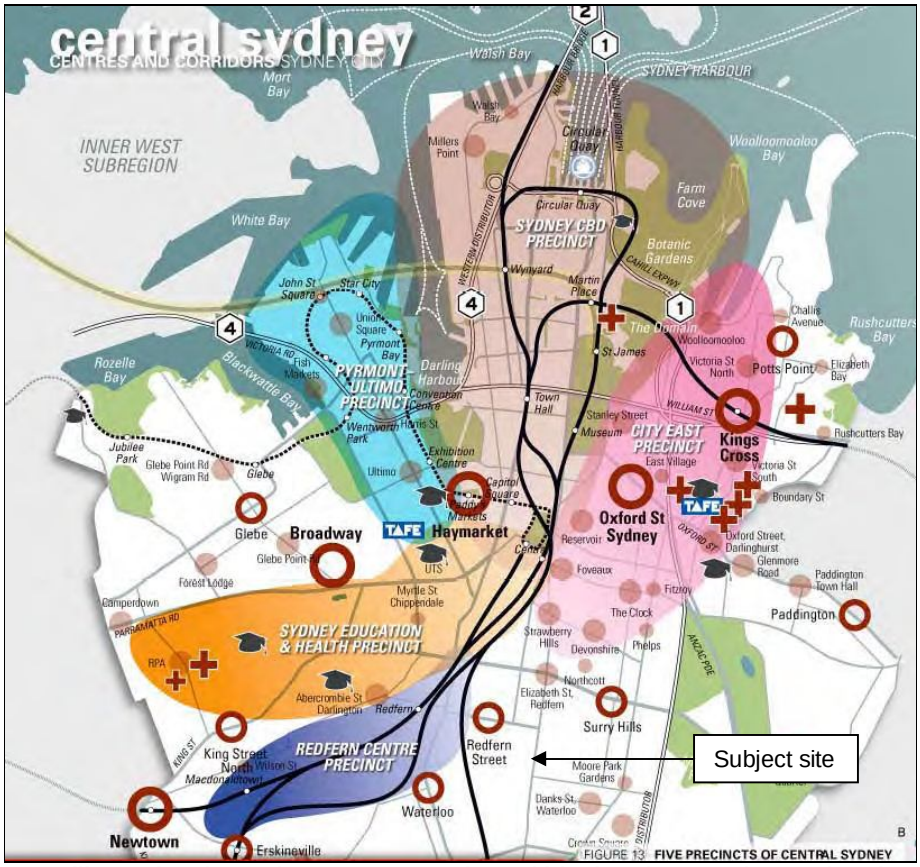

Figure 64: Map illustrating the Redfern Centre Precinct within the City of Sydney Subregion

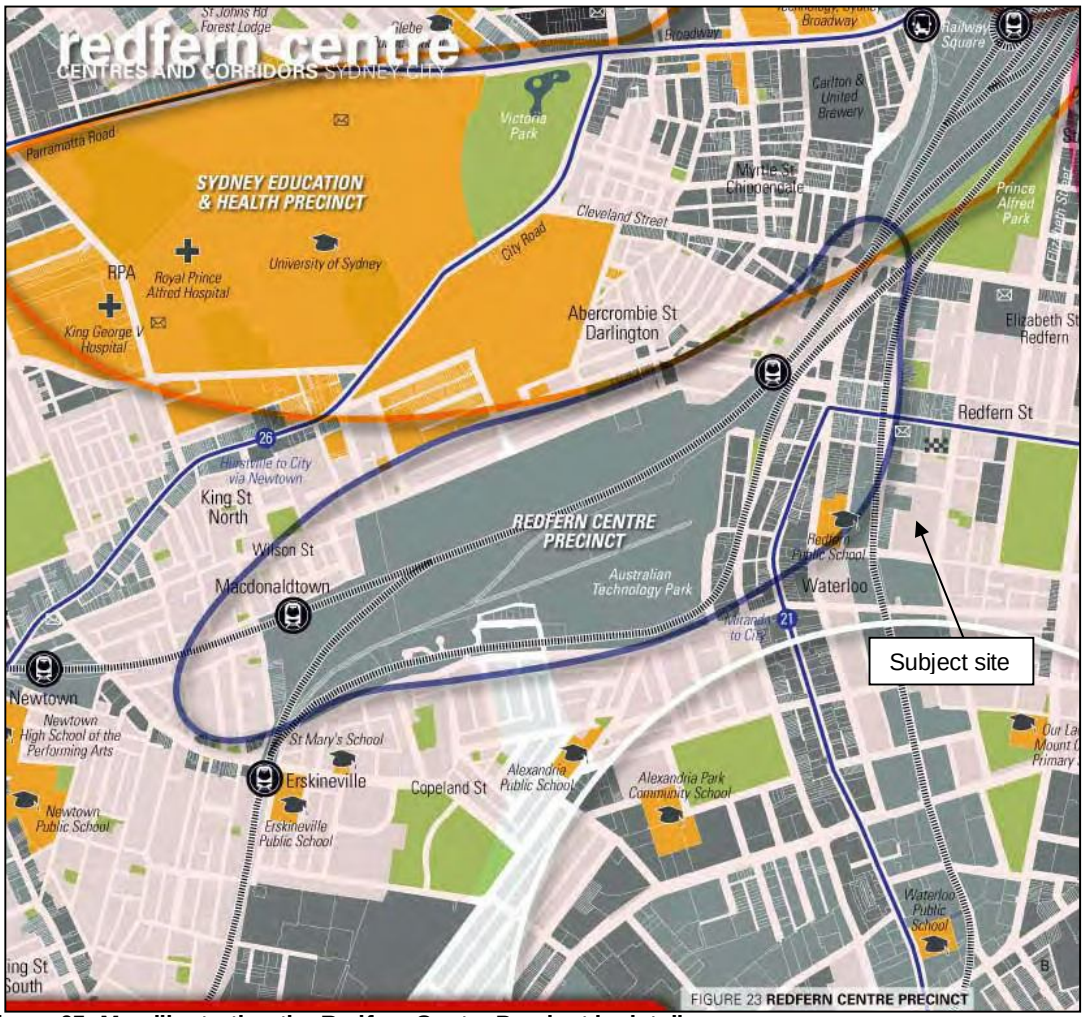

Figure 65: Map illustrating the Redfern Centre Precinct in detail

The draft Subregional Strategy establishes a target of 55,000 additional homes within the subregion over the next 25 years to accommodate the housing needs of existing and future communities.

Major redevelopment or renewal sites have been identified including the former Carlton United Brewery site, Green Square Urban Renewal Area, Barangaroo and Redfern–Waterloo. These sites have the potential to accommodate a share of planned growth in dwellings and will have a strong influence on the future of the subregion.

Future Residential Growth

The plan has identified the following objectives and goals for the Sydney City Subregion:

- *Target of 55,000 new dwellings over the lifespan of this strategy to 2031.*
    - *The 2031 subregional dwelling target is an indicative target which will be reviewed on a five–yearly basis and will be informed annually through the Department of Planning's Metropolitan Development Program (MDP). The short to medium term target to 2013–14 has been derived through*

the MDP process in consultation with councils and industry. This period is expected to yield the greatest residential development in the subregion.

- *that the next five to ten years will see 31,793 new dwellings in the Sydney City Subregion, of which 85 per cent are proposed to be developed near train stations or high frequency bus routes.*

- *Strong demand is expected to continue for dwellings with good access to key employment centres like Sydney's CBD, which can significantly contribute to the State Plan's Priority E5 'Jobs Closer to Homes'.*
- *Sites in Redfern–Waterloo have the potential to accommodate a share of planned growth in dwellings and will have a strong influence on the future of the subregion.*
- *Plan for housing mix near jobs, transport and services*
- *Renew local centres to improve economic viability and amenity*
- *Redfern-Waterloo Authority to provide opportunity for improving the availability of affordable housing in Redfern-Waterloo*

It is considered that the re-development and renewal of the Rachel Forster Hospital site is in keeping with the objectives and strategies of the Sydney Metropolitan Strategy and the Sydney City Draft Subregional Strategy as it provides a mix of housing within close proximity to transport, jobs and services. The proposal also provides an opportunity for providing affordable housing within the Redfern-Waterloo area.

7.7 Redfern-Waterloo Built Environment Plan (Stage 1) August 2006 (BEP)

It is noted from the NSW Government Release on 23 September 2010 that the Sydney Metropolitan Development Authority (SMDA) will assume functions of Redfern Waterloo Authority.

The subject site has been identified in the Redfern-Waterloo Built Environmental Plan (Stage One) as a Strategic Site.

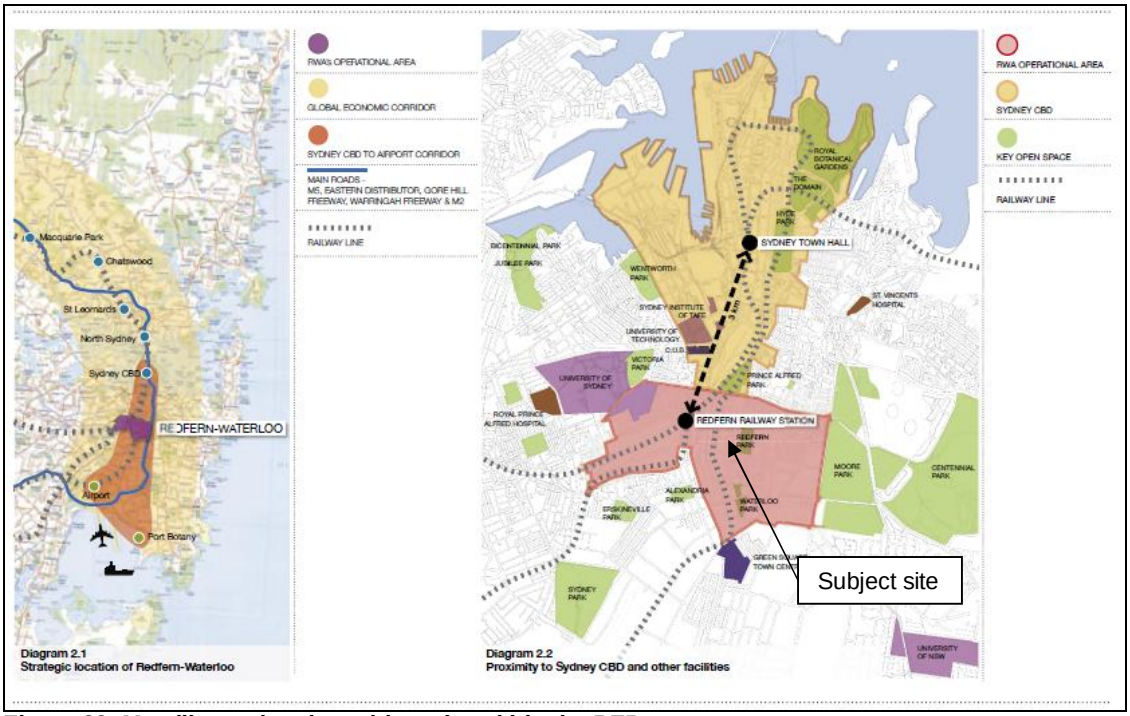

Figure 66: Map illustrating the subject site within the BEP

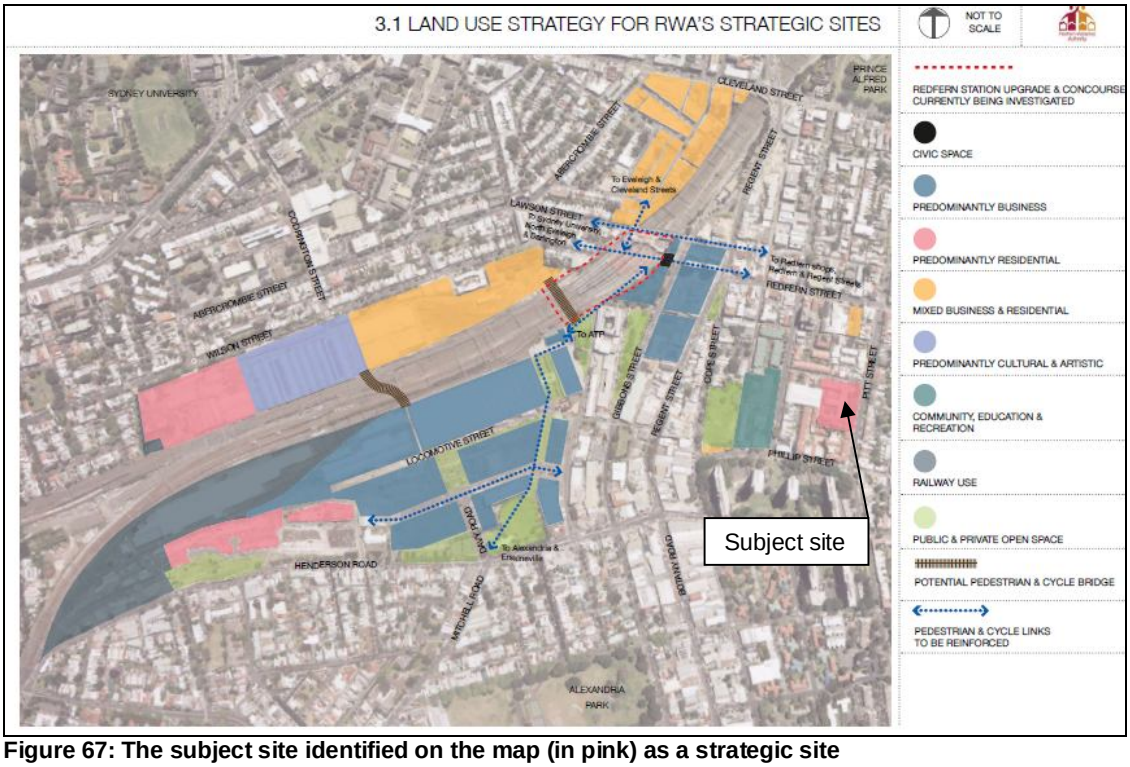

Figure 67: The subject site identified on the map (in pink) as a strategic site

The Plan outlines a design concept for the site which focuses on respecting the character of existing development and development on Albert and Pitt Streets and provides an appropriate interface with adjoining and surrounding developments, specifically:

- *providing a three storey height limit to Albert Street in response to the scale of terrace housing that dominates the street;*
- *ensure that new buildings along Albert Street have the same rhythm and proportions as terrace housing;*
- *allowing buildings of up to six storeys on the central and southern sections of the site;*
- *locating on-site car parking below ground level;*
- *ensuring new development responds to the predominant terrace house typology along Pitt Street with a contemporary interpretation; and*
- *discouraging blank facades and extensive car parking entry and servicing areas along public streets.*

Protect the heritage of the site by:

- *identifying heritage items on the site in accordance with the Heritage Strategy in Section 3.5 of the Plan, ensuring new development responds sensitively to significant heritage items;*
- *retaining and adaptively reusing the heritage buildings and landscape associated with the site; and*
- *encouraging an interpretation plan to commemorate the history of the site and conservation of significant features such as the memorial panels.*

The provision and configuration of open space is to:

- *be in accordance with the Open Space and Public Domain Strategy in Section 3.3 of the Plan;*
- *provide quality landscaping to reinforce the landscape setting of the site and Pitt Street;*
- *provide a high level of residential amenity for new developments by providing adequate private and communal open space within and around the site;*
- *be located and designed to achieve a high level of privacy and separation between dwellings;*
- *be provided for all new dwellings;*
- *be adjacent to active uses to enable surveillance and maximise the safety and security of open spaces;*
- *have good solar access; and*
- *be appropriately designed and landscaped with planting, paving, lighting, benches, and furniture.*

Orientate new development towards Pitt and Albert Streets to provide surveillance of the public spaces for improved safety.

Assessment:

Concept plan

It is considered that the proposal satisfies the above specifications and is also consistent with the FSR and height requirements in the diagram below.

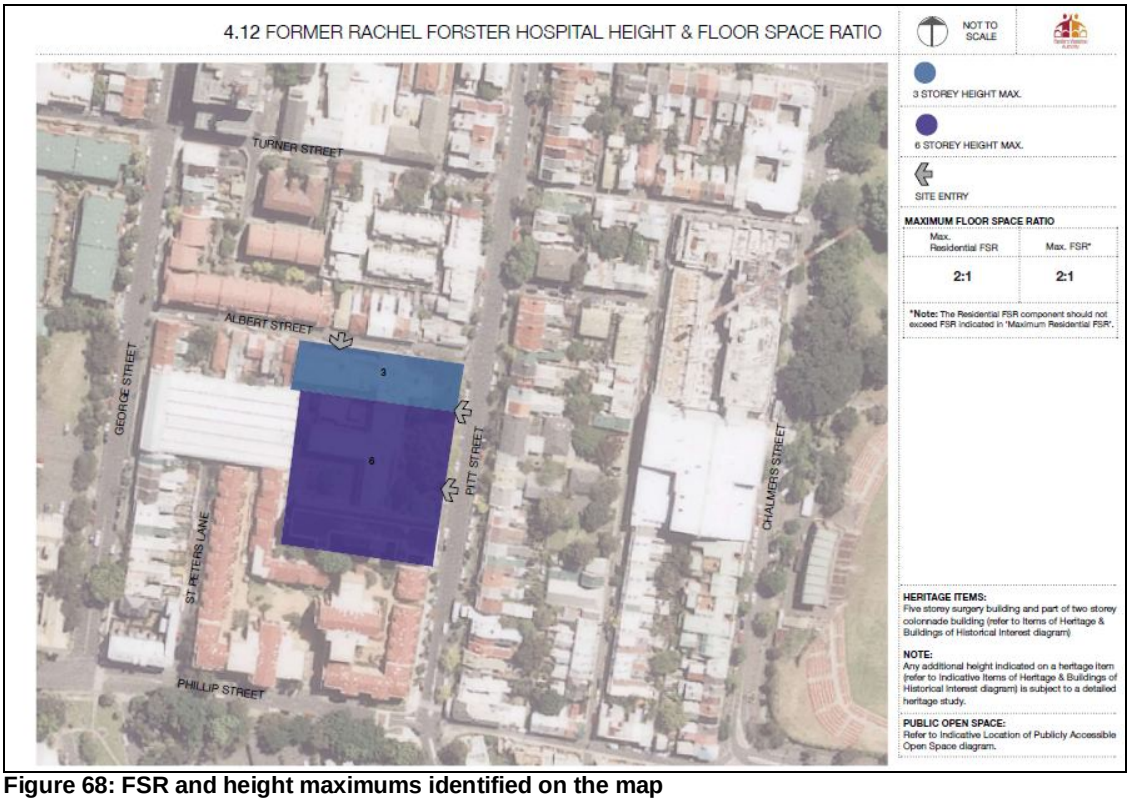

Figure 68: FSR and height maximums identified on the map

The proposed development is consistent with the approved concept plan in that it:

- Maintains the 4 building forms as approved on the concept plan;
- Maintains the residential nature of the concept plan;
- Maintains the 2:1 FSR envisaged for the site and number of units;
- Maintains the 2 basement levels for the site with vehicular access from Pitt Street;
- Maintains the publicly accessible open space area at the front of the site along Pitt Street;
- Maintains the colonnade along the eastern side of Building 2;
- Maintains habitable areas below the Albert Street footway within Building 3;
- Provides for skylights along the roofs of each building to service the upper level units;
- Locates on-site car parking below ground level; and
- Discourages blank facades and extensive car parking entry and servicing areas along public streets.

The proposed development varies from the approved concept plan in the following ways:

- Slight variations to the siting of the buildings;
- Building height variations as shown in the table Table 1 below;
- Increase in the number of units from 150 to 159;
- Additional level of independent units along the Albert Street frontage (no major increase in building height from concept plan)
- Additional level of units in Buildings 2 and 4 (no major increase in building height from concept plan);
- Increase in the number of car parking spaces from 161 to 170; and
- No cross over apartments.

Each of the above variations have been justified in Sections 1.6 – 1.10.

Heritage

The proposal is accompanied by a comprehensive heritage assessment by Weir and Phillips (refer to Appendix H: Heritage Impact Assessment) who were involved at the concept stage. The consultants were therefore aware of the critical heritage issues and such issues have been considered in the design process for the project application.

The design of the proposed development ensures a sympathetic approach to retention and adaptation with the historical components of the site. These include the facades of the major building on the site (Building 1), the colonnade as well as the well in the basement.

An interpretation room has been incorporated into the scheme within the lower level of the major building being retained on the site (Building 1). The siting of this room adjacent to the street entry and publicly dedicated open space area is appropriate as it will be readily appreciated. Other features of the site which will be retained include the predominant form of Building 1 as well as the colonnade along the eastern side of Building 2 while the well in the basement is also to be preserved.

Open space

Isthmus has prepared a Landscape Concept Plan (Appendix B: Landscape Plan). This revised design is similar to the approved concept landscaping plans.

The open space area on the eastern boundary fronting Pitt Street is proposed to be dedicated to Council. This area is approximately 1,060m² and will have good solar access, be fronted on 3 sides by residential apartments and accessed off Pitt Street. The proposed open space has been provided in accordance with the open space and public domain strategy contained in the Redfern-Waterloo Built Environmental Plan (Stage Once) 2006.

The proposed public open space preserves the landscape and open space characteristics of the site and Pitt Street, and does not include any vehicular access points that could result in pedestrian and vehicular conflicts. Pedestrian linkages between the site, to Redfern Station and other proposed open space are via existing public streets including Redfern Street and Albert Street.

The public open space is clearly designated from the remainder of the site visually whilst also being at a level distinct from the private components of the site. The retention of large, mature trees within the public open space area along the Pitt Street boundary will soften the impact of the new built form and provide a garden setting to the street.

The proposed public open space provides a public benefit to the community who will be able to access and use the open space. Future residents will also benefit from the provision of a large open space adjacent to the development for recreational purposes.

Private open space will generally be provided in the form of balconies and terraces with opportunity for courtyards from the lower ground level apartments.

The proposed orientation of units to the respective street frontages to Pitt Street (eastern elevation) and Albert Street (northern elevation) will engage the development with the public domain and assist with passive surveillance.

The Landscape Concept Plan below demonstrates that the proposed landscaping will enhance the quality of the development, improve the streetscape and public domain, provide privacy and visual amenity for residents.

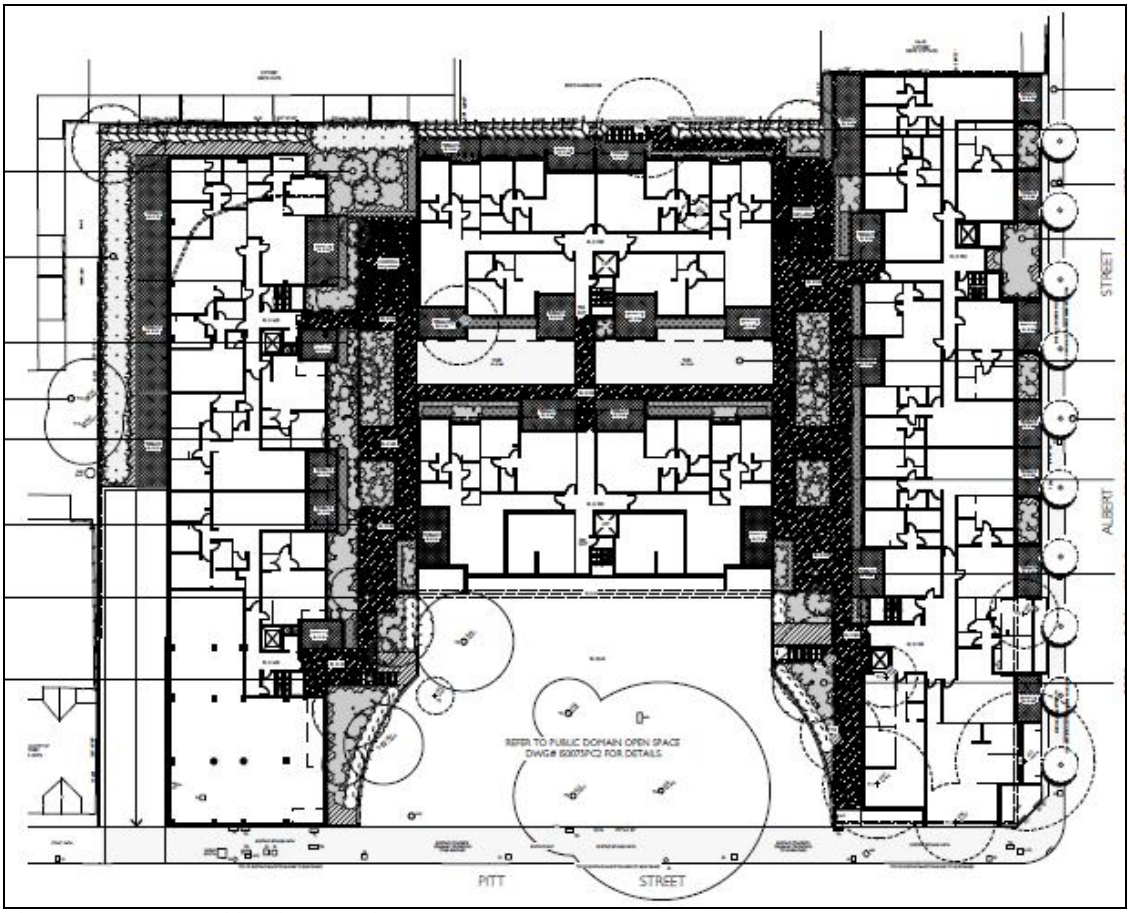

Figure 69: Proposed landscape plan

8 Assessment Against the Concept Plan

The sections below outline how the proposed project scheme is relatively consistent to the approved concept plan, thereby satisfying Part A – Terms of Approval for the Concept Plan and Part B – Modifications to Concept Plan.

The Design Report prepared by Urbis dated February 2010 (refer to Design Report prepared by Urbis (refer to Appendix I: Design Report) contains an assessment of the consistency of the proposed project scheme to the approved concept plan:

> *"The proposed scheme has been designed taking account of the previously approved concept plan. Changes to the approved concept plan are sought in improving the layout and functionality of the residential apartments with the overall intent being to improve the proposed developments compliance with the rules of thumb contained within the Residential Flat Design Code (RFDC)."*

8.1 Building Footprint

The Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states,

> *"Building 1 - The proposal is generally consistent with the floor plate as approved in the concept plan. There is a nominal variation in the building width decreasing from 16.2 metres in the approved concept plan to 16.16 metres. The building length has also been increased by 4.1 metres, from 63.5 metres to 67.6 metres. The proposed increase in building dimensions facilitates a reconfiguration of apartments, allowing a greater mix and size of apartments and improved residential amenity.*
>
> *Building 3 - The proposed concept maintains the dimensions of the approved scheme, with a width of approximately 15.5 metres and a length of approximately 75.9 metres.*
>
> *Buildings 2 and 4 - There is a nominal increase in the widths of Buildings 2 and 4, from 16 metres to 16.21 metres. The overall building length for both buildings has been retained at 36 metres."*

8.2 Built Form - Density

The Design Report prepared by Urbis dated February 2010 states (Appendix I: Design Report):

> *"The subject site has an area of 6,923m². The approved concept plan specifies a maximum allowable FSR of 2:1, which correlates to 13,846m² of Gross Floor Area. The proposed development has an FSR of 1.99:1. This represents a reduction in GFA from the approved concept plan."*

The proposed project scheme therefore satisfies Condition B1(1) of the Modifications to Concept Plan conditions.

8.3 Built Form - Building Height

The Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states,

> *"As with the approved concept plan, the proposed scheme has been designed such that there is a 'stepping down' of building heights across the site. Building 1 is the tallest building on site at 6 storeys, being an adaptive re-use of the existing surgery wing building. Buildings 2, 3 and 4 are three storeys above ground level, providing an overall transition in height between Building 1 and the general scale and form of buildings along Pitt and Albert Streets.*
>
> *Generally, the proposed buildings heights are consistent with those of the approved concept plan, with some more site responsive variations also being substituted as discussed below."*

Below is a table of the proposed heights (above and below) compared to the building heights under the Concept Plan.

	Concept Plan	**Proposed**
Building 1	RL 55.10	RL 56.70 (main building form is RL 54.65 – 0.45m less than concept plan)
Building 2	RL 45.05	RL 45.20
Building 3	RL 45.05	RL 44.95
Building 4	RL 45.05	RL 44.50

Table 9: Height variations

To satisfy Condition B1(3) of the Modifications to Concept Plan conditions, the variations to the approved building heights are outlined below.

Building 1 - Building 1 exceeds the concept plan height at the southern end fronting Pitt Street, yet is predominantly below the concept plan approval height, refer to the figure below. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"The approved concept plan has an overall roof height of RL55.10 excluding plant rooms. The revised scheme proposes an increase in height to a maximum height of RL56.7 inclusive of all plant rooms.*
>
> *By comparing the approved concept plan and the proposed development the overall massing and scale of the proposal is generally consistent with the approved concept plan. Furthermore, the majority of the building is located below the approved concept plan height.*
>
> *As demonstrated in* Figure 70 *which overlays in red the approved concept plan over the current proposal, the difference in height is minor and is predominantly due to increased articulation and taller emphasis of building elements at the eastern and western ends of the building. This increase in height does not add to the overall bulk of the proposal but improves the overall design of the building by*

essentially 'book ending' the building. This assists in the overall design of the building ensuring it reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, uniform structure."

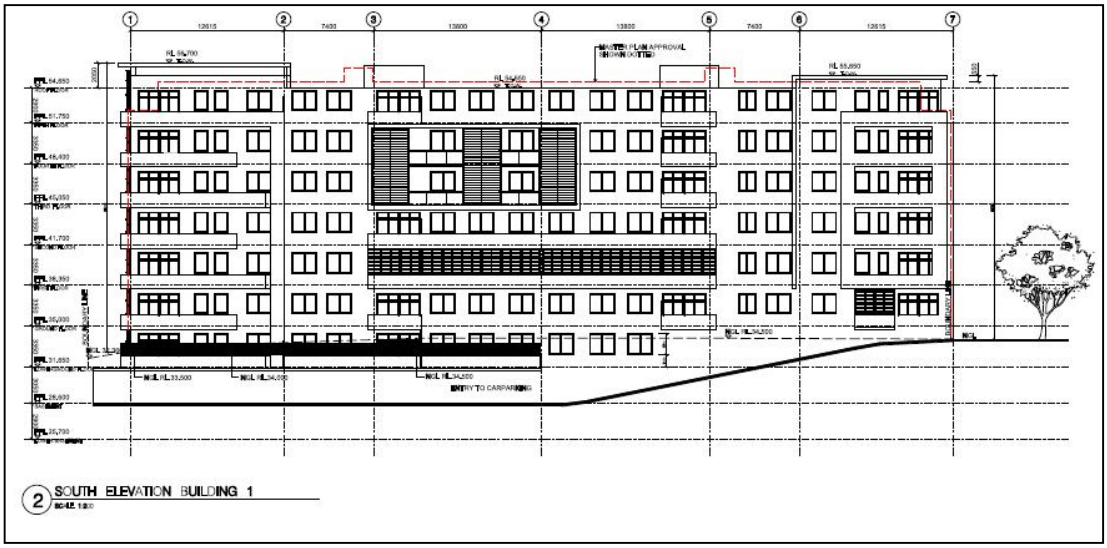

Figure 70: Northern elevation of Building 1, comparative height with concept plan shown dotted in red

Building 2 and 4

Building 2 is greater in height than the concept plan by 0.15m, which is considered to be indiscernible given the setback of over 20 metres from the Pitt Street property boundary. Furthermore, the public open space and associated planting within this setback would further diminish any perception of additional height. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

"Building 2 within the approved concept plan has a height of RL45.05 (excluding plant rooms). Within the proposed scheme, Building 2 has a height of RL 45.20 (excluding plant rooms), being an overall increase in height of 0.15m. This increase in height is negligible and is not considered unreasonable given it will have no noticeable increase in impacts in terms of view loss or overshadowing."

Building 4 is less in height than the concept plan by 0.55m which is also considered to be indiscernible. As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

"Building 4 within the approved concept plan has a height of RL45.2 (excluding plant rooms). Building 4 within the proposed scheme has a height of RL 44.5 (excluding plant rooms), being an overall reduction in height of 0.55m."

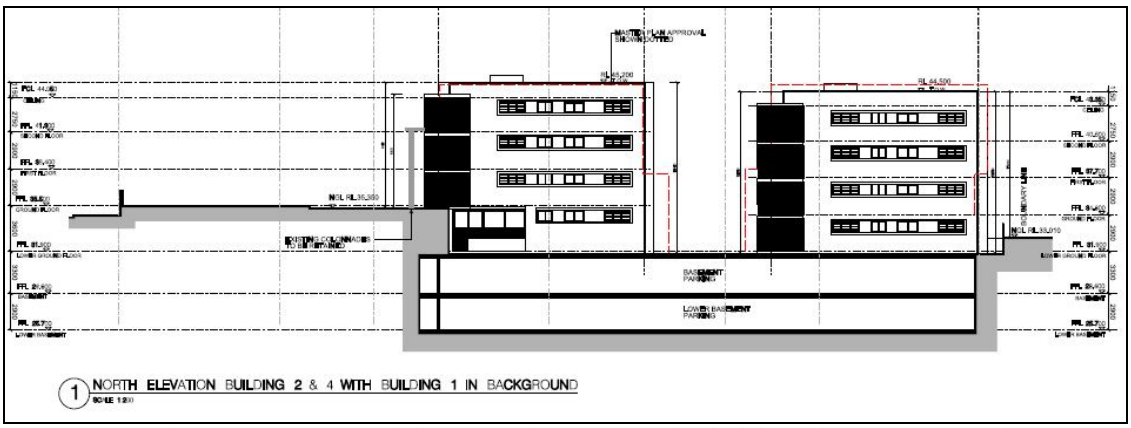

Figure 71: Northern elevation of buildings 2 and 4, comparative height with concept plan shown dotted in red.

Building 3

Building 3 has been altered from the original Concept Plan to allow for the lower apartments on the corner of Pitt and Albert Street to receive adequate solar access and natural light into living rooms. The concept plan shows that the lowest level would be inter-connected with the level above as these units were 2-storey units. It is considered that the single level units at the lowest level will receive adequate amenity through restriction of balcony overhangs and their access to northern sunlight.

As detailed in the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"Building 3 has a roof height of RL 45.95 (excluding plant rooms) and comprises 3 storeys, and a lower ground level (note this lower ground level is labelled basement level in the approved concept plan drawings).*
>
> *The maximum building height has been slightly decreased from that in the approved concept plan, by incorporating a flat roof as opposed to a skillion roof form. This reduction in height is illustrated in* Figure 72 *whereby the approved concept plan has been overlayed in red over the northern elevation of Building 3.*
>
> *We do however note that the lift overruns for the proposed building do extend beyond the approved building envelope, having an overall height of RL47.76 [*Figure 72*]. The approved envelope did not however factor in the need for lift overruns in providing lift access to apartments."*
>
> *We do however note that the lift overruns for the proposed building do extend beyond the approved building envelope, having an overall height of RL47.76 (Figure [10]). The approved envelope did not however factor in the need for lift overruns in providing lift access to apartments."*

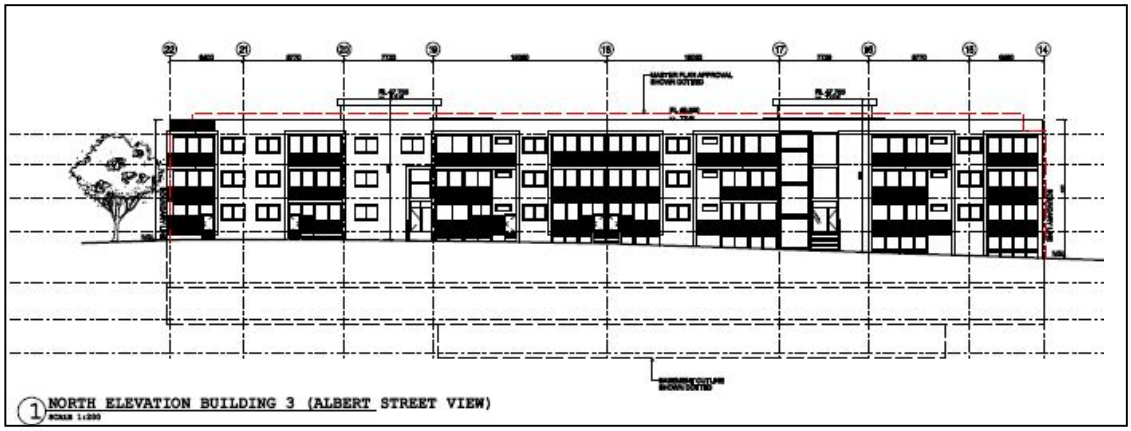

Figure 72: Northern elevation of Building 3 (Albert Street), comparative height with concept plan shown dotted in red

8.1.3 Bulk and Scale

The Design Report prepared by Urbis dated February 2010 states (Appendix I: Design Report):

> *"The overall bulk and scale of the proposal is consistent with the overall massing and scale of the approved concept plan. Despite the increase in height for Building 1, the overall massing of the proposal remains consistent with the existing building.*
>
> *With respect to Buildings 2, 3 and 4, these buildings are consistent with the overall scale and massing of neighbouring properties and provide an overall considered response to the general proportions of both Pitt Street and Albert Street.*
>
> *Further, the four proposed buildings improve on the overall bulk and scale of the approved concept plan, having greater articulation and modulation to building facades, as well as design changes to the upper levels and roof forms of each of the buildings."*

8.4 Design Excellence

As outlined in Section 7.1 it is considered that the proposed project scheme demonstrates design excellence in accordance with Schedule 3, Part5, Division 3, Clause 22 of *SEPP (Major Projects) 2005.*

It is considered that the proposed external treatment to the new and existing buildings as well as the internal design layouts represent a high standard of architectural design and will improve the quality and amenity of the public domain, refer to the photomontages and materials sample boards below. The proposal will be a positive contribution to the existing state of the site as well as to the broader locality.

Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.

The location, layout and design of the units ensures that all units receive good access to sun, natural or cross ventilation whilst also having good internal amenity in relation to visual and acoustic privacy.

Figure 73: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

Figure 74: Photomontages of the subject site (as viewed from Pitt Street).

Figure 75: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

Figure 76: Photomontages of the subject site (as viewed from Pitt Street).

Figure 77: Photomontages of the subject site (as viewed from the public open space fronting Pitt Street).

Figure 78: Material sample board

Sunlight

As detailed in Section 7.3, given the location of the subject site and retention of existing heritage elements, the proposed solar access achieved for the proposed units is considered acceptable. 120 out of the 159 proposed units are either north-facing or dual aspect units, ensuring solar access is maximised.

Sunlight reaches the majority of lower floor units as show in Figure 62.The RL of the lower floor of the proposed development is 31.9m, whereas the RL of the lower floor of the approved concept plan is 31.65m. The proposed development therefore raises the lower floor level by 0.25m, allowing for greater sunlight to access the units.

The figure below illustrates solar access for the lower floor units of the proposed development.

Figure 79: Solar access for the lower floor units

The envelope of Buildings 2 and 4 inhibit the solar access of Building 1. Building 1 has one lower ground floor unit and two units per floor which are single-aspect apartments with a southerly aspect.

Plans demonstrating the solar access for each floor are contained in Appendix E: Solar Access Diagrams. These plans demonstrate that all units in the central Buildings 2 and 4 have northern, eastern and western aspects.

Building 3 contains three units that have dual aspects on the lower floor (Units 102, 105 and 108). Four units within Building 3 have sole aspect to the north. These units have broad frontages and a high glazing to floor area ratio as the units have a shallow depth of 6.12m, whilst having outdoor north facing terraced areas with a depth of 3.12m. Three of the units in Building 3 are single-aspect apartments with a southerly aspect (Units 101, 106 and 107). These units also have open aspects to the south to communal landscape gardens.

The table below demonstrates that that the proposed scheme provides more units with solar access than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	**Concept Plan**
Units	98units/159units	91units/150units
Total	62%	60%

Table 10: Comparison of the number of units that receive 2 hours of solar access on the winter solstice in the proposed scheme and concept plan

Natural ventilation

As detailed in Section 7.3, the Residential Flat Design Code requires 60% of the residential units to be naturally cross ventilated. The table below demonstrates that the proposed scheme meets this requirement and provides more units that achieve cross ventilation than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	**Concept Plan**
Units	95units/159units	59units/150units
Total	60%	39%

Table 11: Comparison of the number of units that achieve cross ventilation in the proposed scheme and concept plan

Visual privacy

As detailed in Section 9.5, the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states:

> *"The proposed development has been designed taking account of the existing approved concept plan and the arrangement and configuration of the residential apartments. All efforts have been made to ensure consistency between the approved concept plan and the proposed development.*
>
> *There are however significant visual privacy issues and poor residential amenity outcomes evident within the approved concept plan and thus all attempts have been made through the proposed development to 'design out' these issues.*

Key concerns with the approved concept plan with respect to the lower ground floor (labeled basement in the approved concept plan drawings) of Buildings 1 and 3 include:

- *17 units have private open space which directly faces the wall of the car park located between Buildings 1 and 3.*
- *10 south facing units in Building 1 have principal private open spaces that directly overlook the driveway which runs the length of the sites southern boundary.*

The above concerns have been directly addressed in the new scheme by:

- *The lowering of the basement parking levels, as discussed above, has eliminated the 17 sub-terrain apartments in Buildings 1 and 3.*
- *The driveway access has been reconfigured such that it now does not run for the length of the sites southern boundary, but rather has been lowered such that courtyards have been provided for all ground floor south facing apartments in Building 1.*

Further, the proposed development predominantly retains the location and size of the existing floor plates of each of the four buildings. It does however adopt appropriate mitigation measures ranging from planter boxes, privacy screens, offsetting of windows in an attempt to maximise visual privacy for residents of the proposed development and adjoining properties."

The building setbacks of the adjoining buildings and proposed buildings will not result in any overlooking of external or indoor living areas to adjoining properties or to units within the site. The existing Heritage Listed Building 1 is considerably setback from the adjoining development to the south, whilst a deep soil landscaped area is proposed as a screen buffer between Building 4 and adjoining development to the west.

The development adjoining the subject site to the south, pictured in the photos below, has a blank façade fronting the proposed development and will be setback between 7m - 12m from the proposed building.

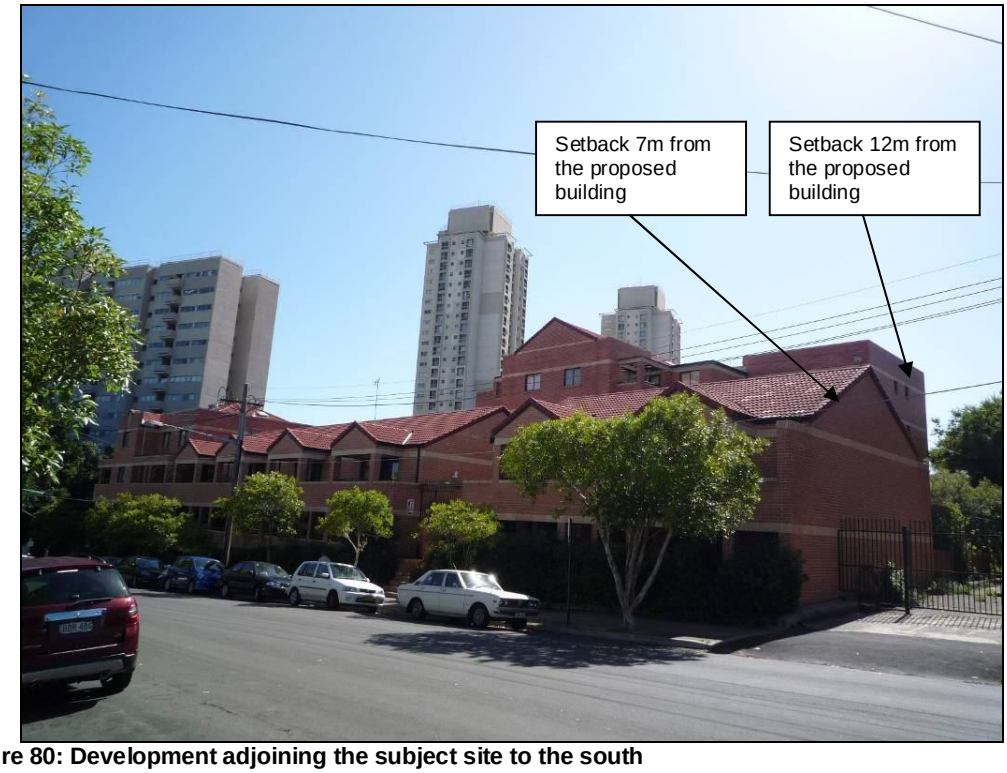

Figure 80: Development adjoining the subject site to the south

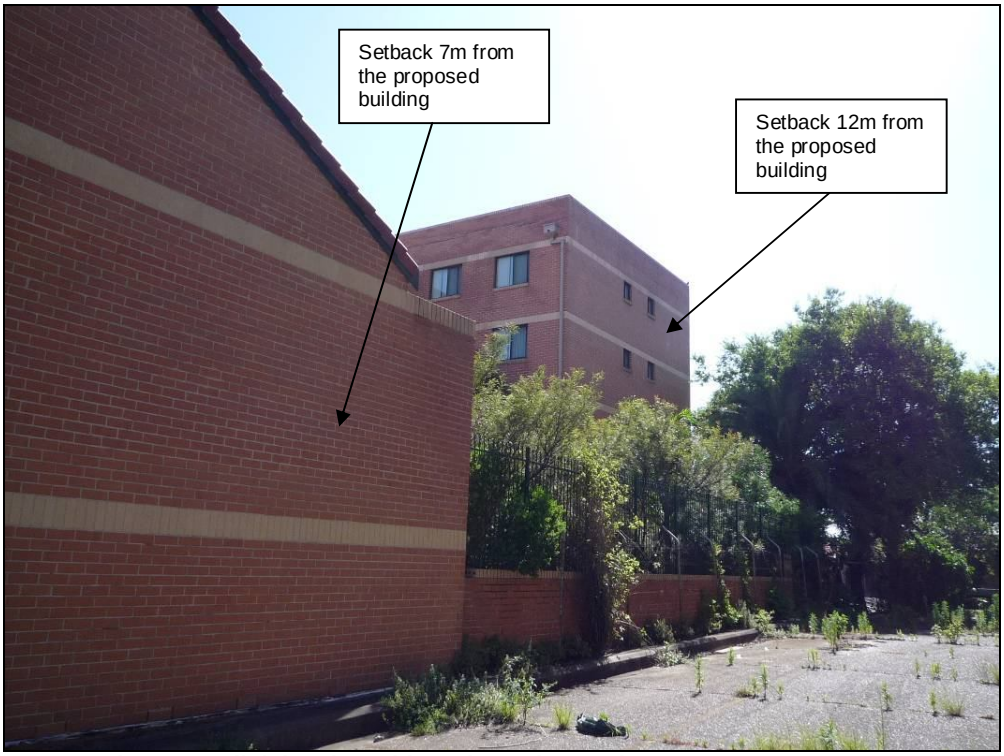

Figure 81: Development adjoining the subject site to the south

Figure 82: Development adjoining the subject site to the south

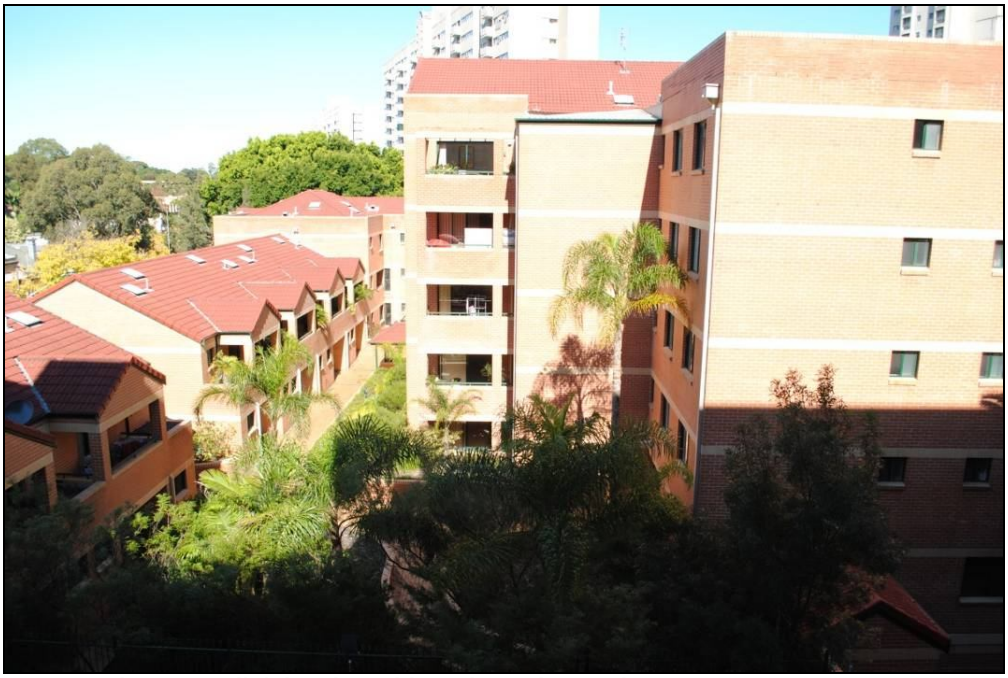

Figure 83: Development adjoining the subject site to the south

The development adjoining the subject site to the west, in the pictures below, has a blank façade fronting the proposed development and will be setback 4m from the proposed building. This 4m setback will consist of deep soil landscaping.

Figure 84: Development adjoining the subject site to the west

Figure 85: Development adjoining the site to the west

Figure 86: Development adjoining the site to the west

Figure 87: Development adjoining the site to the west

Acoustic privacy

The location, layout and design of the units ensures that all units have good internal amenity in relation to acoustic privacy. Acoustic Logic Consultancy prepared an Environmental Noise Assessment for the proposed development, refer to Appendix M: Environmental Noise Assessment. Noise at the site has been measured and noise goals have been set in accordance with the requirements of the local council and relevant

statutory/regulatory authorities. Noise emissions from vehicles using the car park ramp have been assessed and will comply with the noise emission requirements provided the following acoustic treatments recommended in the report are implemented:

- A 1.8 metre high fence of Colorbond or masonry construction must be erected along the portion of the southern boundary of the site that is adjacent to the car park ramp.
- Detailed assessment of all mechanical plant should be conducted at CC stage to determine acoustic treatments (if any) required to ensure plant noise does not exceed acoustic criteria.

Safety and security

Both Architecture & Building Works and Isthmus have prepared the project application to ensure that the development is safe and secure for residents and visitors. The proposal will enliven the locality and assist with casual surveillance. Isthmus has designed the communal and private open spaces within the development for passive recreation which will enhance security. The casual surveillance afforded from the units overlooking the public domain will also assist with general community safety

Casual surveillance of the street has been maximised, with units oriented both onto Pitt and Albert Streets. Individual entries are also provided to units on the ground floor in Building 3, assisting in activation of the street. Blind corners within the development have been avoided.

Resource, energy and water efficiency

The location and orientation of the buildings maximises sunlight, daylight and ventilation to reduce reliance on artificial heating or cooling. The design of the project application is intended to enable the achievement of energy and water efficient reduction targets. The proposal is accompanied by a compliant BASIX certificate (refer to Appendix P: BASIX Certificate).

8.4 Streetscape and Corner Building Design

The Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states:

> *"The proposal has frontages to both Pitt Street and Albert Street and is successful in responding to the surrounding built form and overall character of both streets.*
>
> *Building 3 presents a three storey street wall height along the Albert Street frontage. This is a consistent number of storeys with that of the previous building in this location, and is similar in building mass to the residential buildings directly opposite the site on the northern side of Albert Street. Private entries are provided to ground floor units within Building 3, assisting in street activation and passive surveillance of the street.*
>
> *Building 3 provides a strong street edge to Albert Street, consistent with the general setbacks and overall siting of buildings along Albert Street. The modulation to the façade and use of balconies and recessive elements also*

assists in 'breaking-up' the overall bulk of the scheme. This ensures the development reads as a number of different elements and not one continuous building mass.

Along Pitt Street, the development 'reads' as a number of individual buildings, with Buildings 2 and 3 being of a significantly reduced scale in comparison to Building 1. Whilst Building 1 is considerably larger in terms of height and its general massing, it is an adaptive re-use of the former surgery wing and thus is an established built form within the Pitt Street streetscape.

With respect to Building 2, it is setback from the Pitt Street streetscape at a distance that does not give it a dominant presence to the streetscape. This results in only Buildings 1 and 3 being readily apparent from Pitt Street, with both buildings being separated along the Pitt Street frontage by a large public open space area.

The ground floor levels of Buildings 1, 2 and 3 all provide residential entries that open onto the open space area. The residential levels located above also provide balconies which assist in the activation and passive surveillance of this open space area.

Furthermore, the proposed scheme reinforces the heritage nature of the site, by retaining and reusing elements such as the colonnade and the former surgery wing built form. Expressing these links to the site's historical significance within the local streetscape is a strong feature of the proposed scheme. This helps to strengthen the community based nature of the site while providing a unique backdrop to the public open space."

Refer to the photomontages below which illustrate the architectural design of the proposed buildings as viewed from corner of Pitt Street and Albert Street, thereby satisfying Condition B3 of the Modifications to Concept Plan conditions.

Figure 88: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

Figure 89: Photomontages of the subject site (as viewed from corner of Pitt Street and Albert Street)

8.5 SEPP 65

As already provided in Section 7.3, below is a table demonstrating how the proposed project scheme is in line with the SEPP 65 10 Design Quality Principles, thereby satisfying Condition B4 of the Modifications to Concept Plan conditions.

SEPP 65 Principles	**Design Quality Principles**
Principle 1: Context	The local context is characterised by varying building typologies i.e. fine grain terrace houses to the west and northwest, medium grain development bordering the southern precinct of the site, and a large warehouse located to the west of the site. There is however no consistent built form character within surrounding streets and thus the proposal provides a range of building typologies that respect the existing on site buildings, and the form and scale of immediately adjoining properties. The proposal for residential purposes only is consistent with the surrounding context of residential terraces and residential units in terms of the transitional scale from 6 storeys at the southern end down to 3 storeys (above street level) along Albert Street to the north. The site is also well located in terms of access to transport and employment. The proposal responds to its context through the retention of a heritage item and the provision of new buildings that relate to the form and scale of adjoining buildings.
Principle 2: Scale	The project application has maintained the configuration and scale of the approved concept plan in terms of building lengths and height. Building 1 is a heritage item of an established height and scale. The overall height of Building 1, whilst not similar to immediately adjoining

	properties is an established characteristic of the streetscape, and is reflective of the heritage nature of the building. Buildings 2, 3 and 4 are of an appropriate scale and massing relative to the immediately adjoining properties.
Principle 3: Built Form	As proposed in the Concept Plan, Buildings 1, 2 and 3 will maintain the 'H' configuration of the original hospital buildings. Building 4 will be placed towards the rear of the site. As stated above, the form of the buildings are consistent with the Concept Plan and appropriate for the site. Adaptation of the tall building at the southern end of the site successfully modernises the building for residential purposes whilst retaining the architectural character. The proposed scheme improves upon the approved scheme through increased articulation to building facades. Building 1 sought to achieve a better design outcome through the articulation of vertical and horizontal elements to the eastern and western ends of the building. This assists in book-ending the site and ensuring that the building reads as a series of related components as opposed to a uniform building. The built form across the site is proposed to achieve a consistency through horizontal built form elements. This addresses the configuration of the four buildings where Buildings 1 and 3 are situated parallel to each other and separated by Buildings 2 and 4 which also run parallel with each other and perpendicular to Buildings 1 and 3. Buildings 1 and 3 are adequately setback from Buildings 2 and 4, ensuring sufficient spacing between buildings, as well as providing sufficient area designated for public open space.
Principle 4: Density	The density of the site is controlled by the SEPP Major Projects 2005 with a FSR of 2:1 for the site. The proposed scheme will achieve a greater yield than that achieved in the approved plans i.e. an increase in units from 150 to 159. An FSR of 1.98:1 is proposed, being lower than the maximum allowable FSR of 2:1. Based on the site area of 6,923m^2, this equates to a gross floor area of 13,787.51m^2. The proposed density is suitable given its inner city location and proximity to transport.
Principle 5: Resource, energy and water efficiency	The location and orientation of the buildings maximises sunlight, daylight and ventilation to reduce reliance on artificial heating or cooling. The design of the project application is intended to enable the achievement of energy and water efficient reduction targets and as such satisfaction of the BASIX Certificate. Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.

	Floor plans demonstrating the internal layout of the buildings indicate maximisation of natural sunlight through north-aspect apartments. The plan maximises the number of dual aspect and due north apartments, ensuring solar access and natural ventilation to units. The selection of building materials, mechanical appliances and water management will be addressed at the detailed design stage.
Principle 6: Landscape	Based upon the conceptual landscape prepared by Oculus Landscape Architects, Isthmus has prepared a new design for the project application stage. Under the new design, the landscaping aims to enhance the site, streetscape and neighbourhood character. The proposal incorporates a significant open space area along the sites Pitt Street frontage. The proposed scheme has increased the amount of deep soil planting.
Principle 7: Amenity	The project application has optimised amenity in terms of daylight and sunlight access, particularly into Building 3 with the elevation of the apartments at the lower levels. Private open spaces in the form of balconies and courtyards are provided for all units. A large communal open space area is provided along the Pitt Street frontage of the site. This provides both active and passive recreational opportunities for residents of the development. 120 out of the 159 proposed units are either north-facing or dual aspect units, ensuring natural ventilation and solar access is maximised.
Principle 8: Safety and security	Both Architecture & Building Works and Isthmus have prepared the project application to ensure that the development is safe and secure for residents and visitors. Isthmus has designed the communal and private open spaces within the development for passive recreation which will enhance security. Casual surveillance of the street has been maximised, with units oriented both onto Pitt and Albert Streets. Individual entries are also provided to units on the ground floor in Building 3, assisting in activation of the street. Blind corners within the development have been avoided.
Principle 9: Social dimensions	The project application will increase housing within the Redfern area. The proposal facilitates housing affordability through a mix of units including one, two and three bedroom units.

	Particularly as the development is undergoing transition, a mix in apartment sizes enables the development to cater for different budgets and housing needs. The development will function to encourage a social mix through choice in housing types.
Principle 10: Aesthetics	The proposal has been the subject of co-ordinated input from Urbis as well as Weir and Phillips Heritage Architects who have worked in association with the project architects. This has resulted in an attractive building presentation which substantially lifts the contribution of the buildings on the site. The proposal adopts a desirable palette of materials suited to the inner city location whilst respecting the historical features of the site, in particular the historically significant and prominent Building 1 and the colonnade along the eastern elevation of Building 2. Each building reads as a series of cohesive vertical and horizontal elements as opposed to a stand alone, building mass. The proposal incorporates extensive modulation and articulation to building facades, providing an overall reduction in the perceived bulk and scale when compared to the approved scheme.

Table 12: SEPP 65 - 10 Design Quality Principles

Moreover, as outlined below, the proposed project scheme also complies with the building depth, building separation, natural ventilation and daylight access provisions of the Residential Flat Design Code, satisfying Condition B4 of the Modifications to Concept Plan conditions.

Building Depth: The maximum apartment building depth permitted by the Residential Flat Design Code is 18 metres (glass line to glass line). The proposed scheme complies with this aspect and proposes buildings with the following depths:

- Building 1 – 16.16m
- Building 2 – 16.21m
- Building 3 – 16.21m
- Building 4 – 15.57m

Building Separations: The Residential Flat Design Code requires separation for buildings up to 4 storeys in height ranging from 6m between non-habitable rooms, 9m between habitable rooms/balconies and habitable rooms, and 12m between habitable rooms/balconies. For buildings between 5 to 8 storeys in height, the separation distances range from 9m between non-habitable rooms, 13m between habitable rooms/balconies and habitable rooms, and 18m between habitable rooms/balconies. The Residential Flat Design Code also allows for separation controls to be varied in response to site and context constraints and setting. The following building separations are proposed:

Buildings	**Building Height**	**Separation**	**Compliance**
Building 1 to Building 2 and 4	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.6m and 9m Between habitable rooms / balconies: 5.6m	Partially
Building 2 and 4	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 10.8m Between habitable rooms / balconies: 10.8m, 10.5m, 9m and 8.8m	Partially
Building 3 to Building 2 and 4	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 8.2m and 8.8m Between habitable rooms / balconies: 7.2m	Partially
Building 1 and adjacent development to the south	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 4.6m, 7.2m, 10.7m and 13m Between habitable rooms / balconies: 12m	Partially
Building 1 and adjacent apartment development to the west	6 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.1m Between non-habitable rooms: 6.3m	No
Building 4 to adjacent townhouse development to the west	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 6.6m Between habitable rooms / balconies: 6.5m	Partially
Building 4 to adjacent non-residential warehouse building to the west	3 storeys	Between habitable rooms / balconies and non-habitable rooms: 3.1m, 4.6m and 3.8m	No
Building 3 to adjacent two-storey	3 storeys	Wall to wall	No

brick cottage on Albert Street			

Table 13: Building separations table

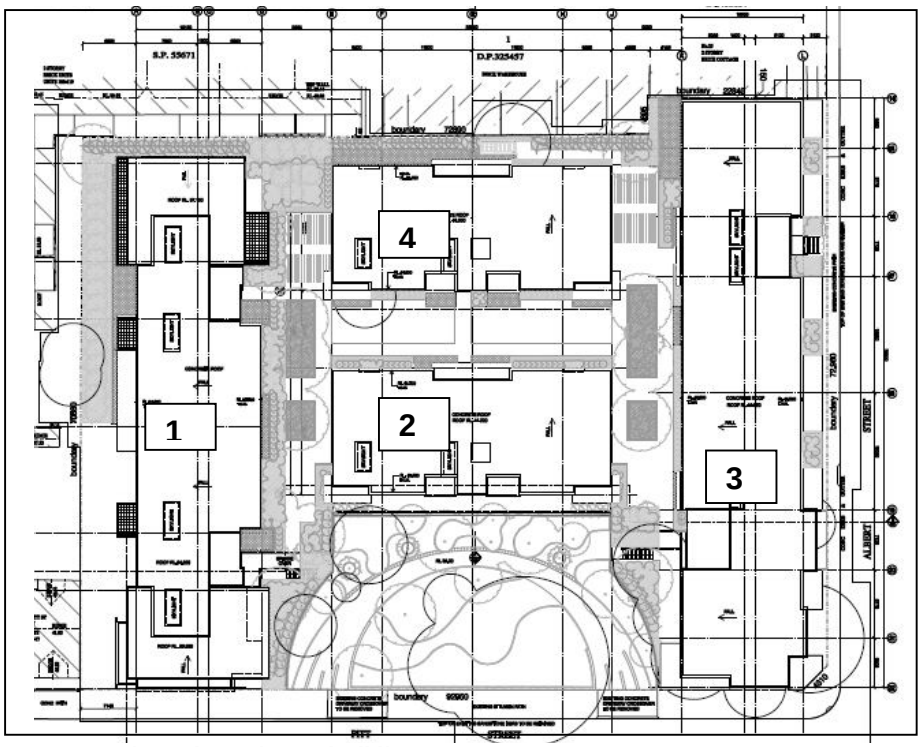

Figure 90: Proposed configuration of buildings

It is noted that the building separations in the Approved Concept Plan also don't comply with the Code. As highlighted in Section 7.3, the proposed development improves the layout and functionality of the residential apartments when compared to the concept plan.

Given the location of the subject site, the retention of existing heritage elements, the location of existing surrounding residential development, and characteristic separation distances of surrounding development in the area, the proposed separation distances of Buildings 1, 2, 3 and 4 from the adjoining developments and within the site is considered acceptable.

Various mitigation measures and treatments have been provided to address the non-compliances with the building separation standards including the restriction of west facing windows from Buildings 2 and 4 towards Building 1. The western facing windows of Building 2 and 4 are highlight and screened windows and the western terraces of Buildings 2 and 4 are equipped vertical louvers to provide additional privacy. Landscaping has also been provided as a buffer between buildings and Buildings 1 and 2 have raise garden beds.

Natural Ventilation: The Residential Flat Design Code requires 60% of the residential units to be naturally cross ventilated. The table below demonstrates that the proposed scheme meets this requirement and provides more units that achieve cross ventilation than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	**Concept Plan**
Units	95units/159units	59units/150units
Total	60%	39%

Table 14: Comparison of the number of units that achieve cross ventilation in the proposed scheme and concept plan

Daylight Access: The Residential Flat Design Code requires living rooms and private open spaces for at least 70% of apartments in a development to receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid winter. In dense urban areas, such as Redfern which is located in the inner city, a minimum of 2 hours maybe acceptable. The Code also requires the number of single-aspect apartments with a southerly aspect (SW-SE) to be limited to a maximum of 10% of the total units proposed.

Given the location of the subject site, retention of existing heritage elements, the proposed solar access achieved for the proposed units is considered acceptable. As outlined in Section 7.4 and illustrated in the figure below, sunlight reaches the majority of lower floor units. The RL of the lower floor of the proposed development is 31.9m, whereas the RL of the lower floor of the approved concept plan is 31.65m. The proposed development therefore raises the lower floor level by 0.25m, allowing for greater sunlight to access the units.

Figure 91: Solar access for the lower floor units

The envelope of Buildings 2 and 4 inhibit the solar access of Building 1. Building 1 has one lower ground floor unit and two units per floor which are single-aspect apartments with a southerly aspect.

Plans demonstrating the solar access for each floor are contained in Appendix E: Solar Access Diagrams. These plans demonstrate that all units in the central Buildings 2 and 4 have northern, eastern and western aspects.

Building 3 contains three units that have dual aspects on the lower floor (Units 102, 105 and 108). Four units within Building 3 have sole aspect to the north. These units have broad frontages and a high glazing to floor area ratio as the units have a shallow depth of 6.12m, whilst having outdoor north facing terraced areas with a depth of 3.12m. Three of the units in Building 3 are single-aspect apartments with a southerly aspect (Units 101, 106 and 107). These units also have open aspects to the south to communal landscape gardens.

Moreover, the proposed development raises Building 3 by 150mm which results in a reduction of the number of units beneath ground from 32 (as approved in the concept plan) to 17. These 17 units all protrude from the ground allowing for an increase of internal solar access to these units. The balconies above these units have been amended from that approved in the concept plan. The proposed balconies are not

continuous, therefore allowing more light to penetrate the units. Refer to Section 7.3 of this report for a detailed assessment of daylight access for the proposed units.

It is noted that the Residential Flat Code allows for 10% of the overall units to be single-aspect apartments with a southerly aspect. The proposed development contains the following single aspect units with a southerly aspect:

Building 3: 3 x 3 = 9 south facing units
Building 1: 5 x 2 = 10 south facing units
TOTAL = 19 south facing units = 12%.

The table below however demonstrates that that the proposed scheme provides more units with solar access than the concept plan that was determined by the Department of Planning in October 2007.

	Proposed Scheme	**Concept Plan**
Units	98units/159units	91units/150units
Total	62%	60%

Table 15: Comparison of the number of units that receive 2 hours of solar access on the winter solstice in the proposed scheme and concept plan

8.6 Landscaping and Tree Removal

As outlined in Section 7.1, the proposed project scheme seeks to maximise the provision and retention of trees on site. However a number of trees will require removal to facilitate the development and its construction. Tree retention and removal for the proposed project scheme is in accordance with the Arboricultural Assessment and Development Impact report prepared by Guy Paroissien Landscape Matrix Pty Ltd (refer to Appendix Q: Arboricultural Assessment), thereby satisfying Condition B5 of the Modifications to Concept Plan conditions.

Guy Paroissien Landscape Matrix Pty Ltd recommends that the following four (4) trees are removed due to poor/declining health, structural problems, risk of failure and noxious weed species. Two of the trees (# 12 and 16) are located within the proposed building footprints.

- Tree # 2 Ligustrum sinense (Small-leaved Privet-noxious weed)
- Tree # 5 Cinnamomum camphora (Camphor laurel)
- Tree # 12 Celtis sinense (Chinese Hackberry)
- Tree # 16 Ceratonia siliqua (Carob Tree)

The recommendations of the Arboricultural Assessment and Development Impact report have been incorporated in the proposed landscaping of the site prepared by Isthmus (refer to figure below). The proposed landscape plan is similar to the landscape concept diagram and principles prepared by Oculus for the concept plan, refer to the figure below. The retention of large, mature trees within the public open space area along the Pitt Street boundary will soften the impact of the new built form and provide a garden setting to the street.

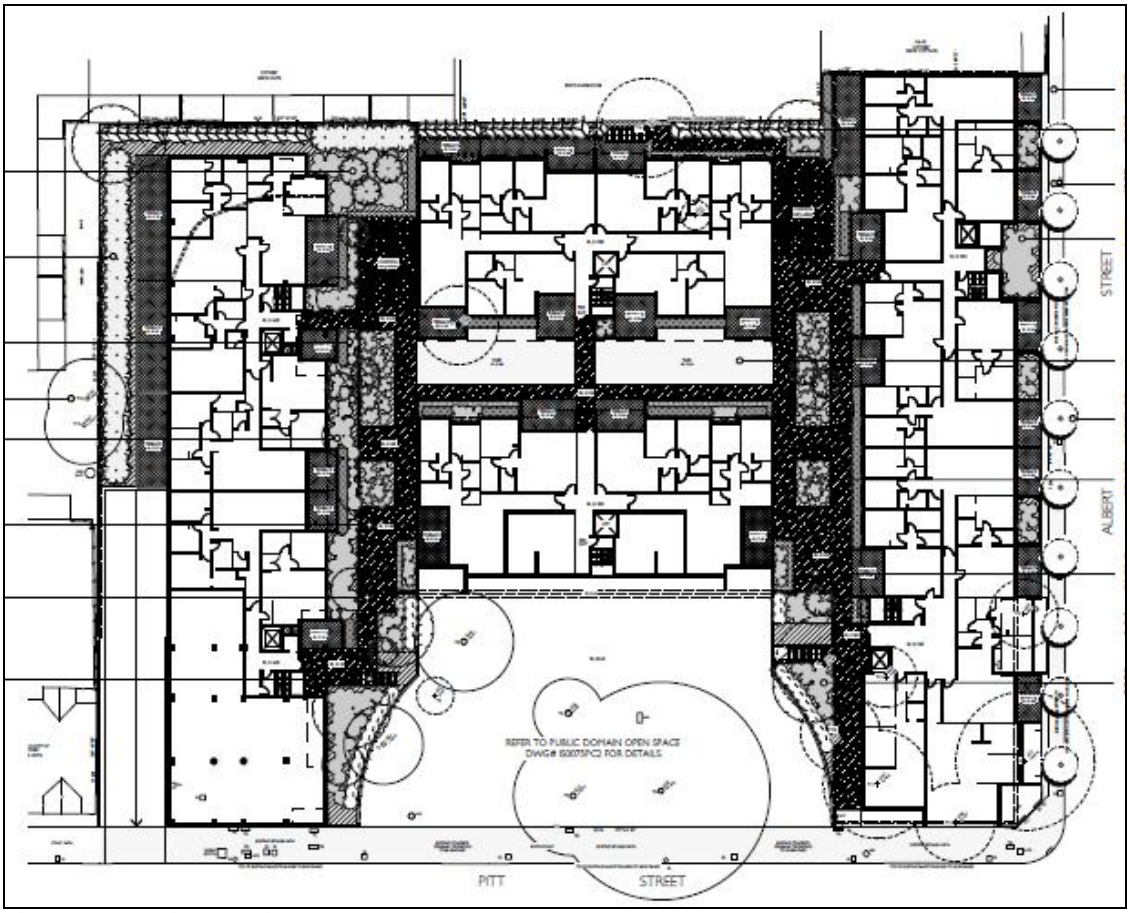

Figure 92: Landscape plan

8.7 Parking

The approved concept plan included 150 units and 161 car parking spaces. The proposed project scheme includes 159 units and 170 car parking spaces.

The Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states:

> *"The proposed amendments to the basement parking levels provides a consolidated basement parking arrangement whereby parking on site has been increased from 161 spaces to a total of 170 spaces.*
>
> *With respect to access to the basement parking levels, the proposed development provides an overall improved outcome than that provided for in the approved concept plan. The basement entry driveway previously extended for the length of the southern boundary of the site. This has been redesigned so that the driveway into the basement now only extends for half the length of the southern boundary. This not only reduces noise levels for units on the southern side of Building 1, but also provides ground floor units with large private courtyards."*

It is therefore considered that Condition B6 of the Modifications to Concept Plan has been satisfied.

8.8 Basement Parking

The Design Report prepared by Urbis dated February 2010 states (Appendix I: Design Report):

> *"A significant change between the approved concept plan and the proposed development is the configuration and siting of the basement parking levels. It is proposed to lower the lower ground floor basement car park from the approved RL of 28.30 to RL 25.70, being a 2.6m difference.*
>
> *As demonstrated by comparing the figures below, lowering the lower basement parking level eliminates the sub-terrain apartments contained within Buildings 1 and 3 of the approved concept plan. This is an appropriate outcome as these apartments have poor solar access and orientate predominantly onto a solid building wall, thus having poor overall residential amenity. By lowering the basement parking levels, greater solar access penetration is received by ground floor units, as well as an improved outlook. This substantially improves the amenity of the proposed apartments.*
>
> *The revised parking arrangement also allows for a consolidated parking arrangement with additional parking spaces, while maintaining deep soil zones."*
> *Arrangement with additional parking spaces, while maintaining deep soil zones."*

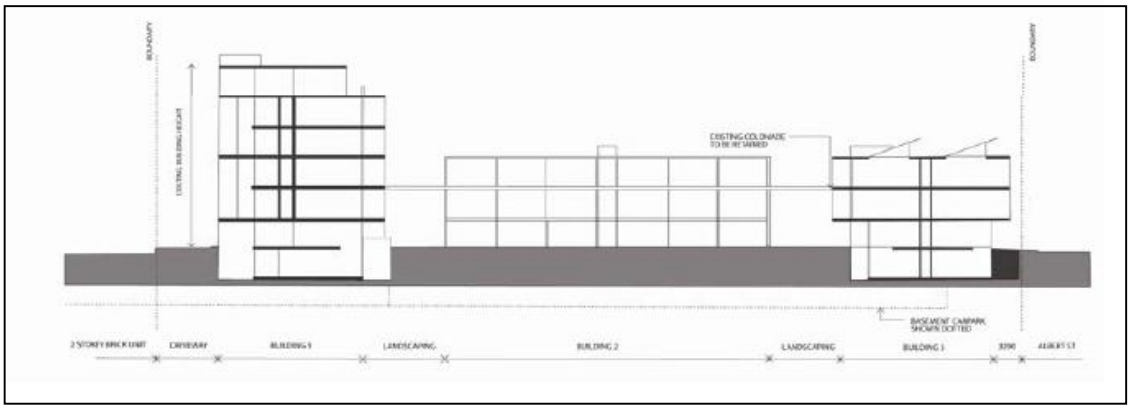

Figure 93: Section through Buildings 1, 2 and 3 of approved concept plan

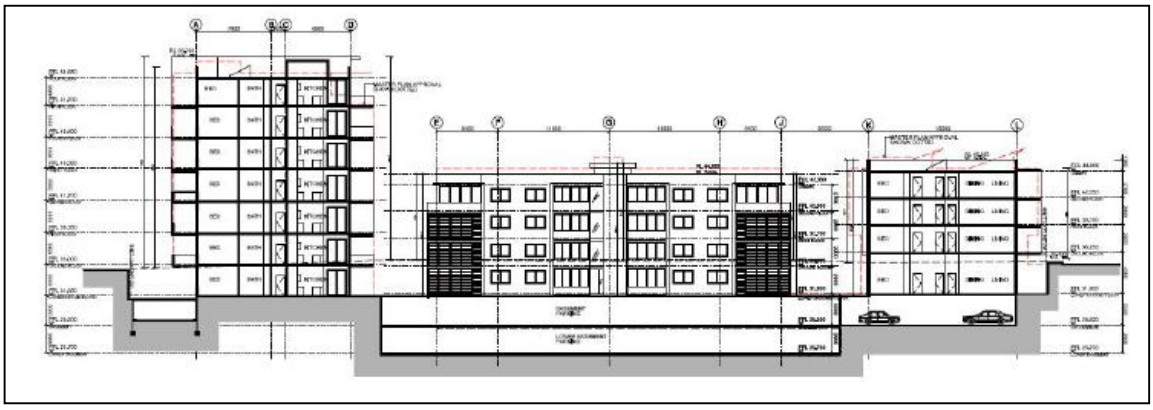

Figure 94: Section through Buildings 1, 2 and 3 of proposed development

8.9 BASIX

A BASIX Certificate accompanies this Project Application (refer to Appendix P: BASIX Certificate), which includes use of a rainwater tank for landscape irrigation and a car wash bay, solar – gas boosted central hot water systems for each unit building and high rating water fixtures and appliances.

It is therefore considered that Condition B7 of the Modifications to Concept Plan has been satisfied.

8.10 Heritage and Archaeology

Considerable investigation at the Concept Stage has been undertaken by Weir and Phillips Heritage Consultants (refer to Appendix H: Heritage Impact Assessment). An interpretation room has been incorporated into the proposed project scheme within the lower level of the major building being retained on the site (Building 1). The siting of this room adjacent to the street entry and publicly dedicated open space area is appropriate as it will be readily appreciated.

Other features of the site which will be retained include the predominant form of Building 1 as well as the colonnade along the eastern side of Building 2 while the well in the basement is also to be preserved. The interpretation room will recognise and incorporate reference to the well on the site, thereby satisfying Condition B8 of the Modifications to Concept Plan has been satisfied.

Below is an overlay plan of Rachel Forster Hospital above showing the location of the well in the basement (arrow) and the probable extent of soil deposits with potential to contain physical remains of historical and Aboriginal occupation (shaded red).

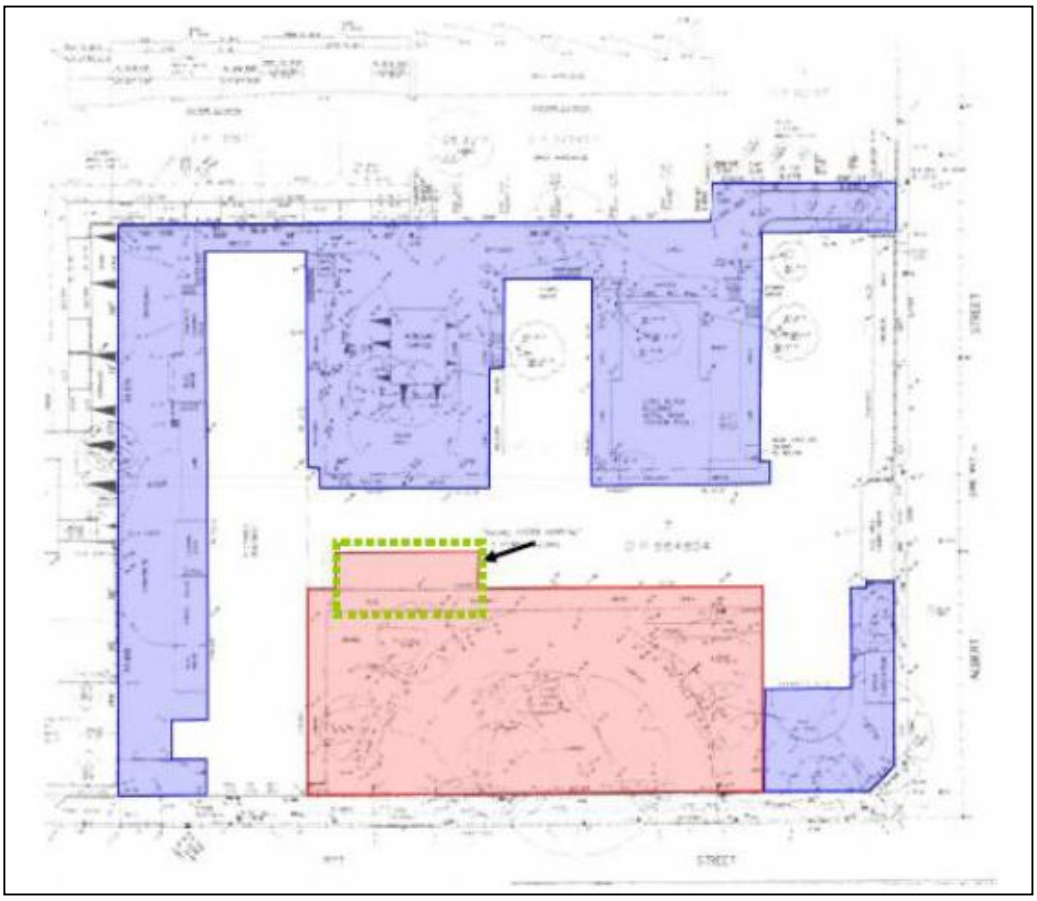

Figure 95: Overlay plan of Rachel Forster Hospital

8.10 Developer Contributions and Affordable Housing Contributions

In May 2007, the Minister for Redfern-Waterloo adopted the Redfern-Waterloo Authority Contributions Plan for the levying of development contributions for the provision of public facilities and infrastructure within the Redfern-Waterloo Authority's Operational Area, and therefore includes the subject site.

Under Clause 8 of the Contributions Plan, the Minister may impose, as a condition of consent to the carrying out of development to which the Plan applies, a requirement that the proponent pay a development levy of 2% of the proposed cost of carrying out the development, excluding the costs of development that is an adaptive reuse of a heritage item.

A S94A levy will therefore be calculated, in accordance with S25J of the EP&A regulation 2000, for the proposed development.

Development of the site is also subject to the Redfern Waterloo Authority Affordable Housing Contributions Plan 2006. The contribution rate is applicable to the additional GFA of the new development. In this instance, the rate will apply to additional GFA. The floor area of the existing hospital is 13,191m². The GFA of the proposed development is 13,787.51m². The additional GFA is therefore 596.5m².

It is therefore considered that Conditions B9 and B10 of the Modifications to Concept Plan will be satisfied.

8.11 Dedication of Public Park

As outlined in Section 7.7, the open space area on the eastern boundary fronting Pitt Street is proposed to be dedicated to Council. This area is approximately 1,060m² and accessed off Pitt Street, thereby satisfying Condition B11(a) of the Modifications to Concept Plan. The proposed open space has been provided in accordance with the open space and public domain strategy contained in the Redfern-Waterloo Built Environmental Plan (Stage Once) 2006.

8.12 Accessibility

The proposed development does not provide any cross over apartments, whereas the approved concept plan provided predominantly mezzanine apartments as demonstrated in the figure below. The proposed development therefore provides units that are more readily accessible to the public.

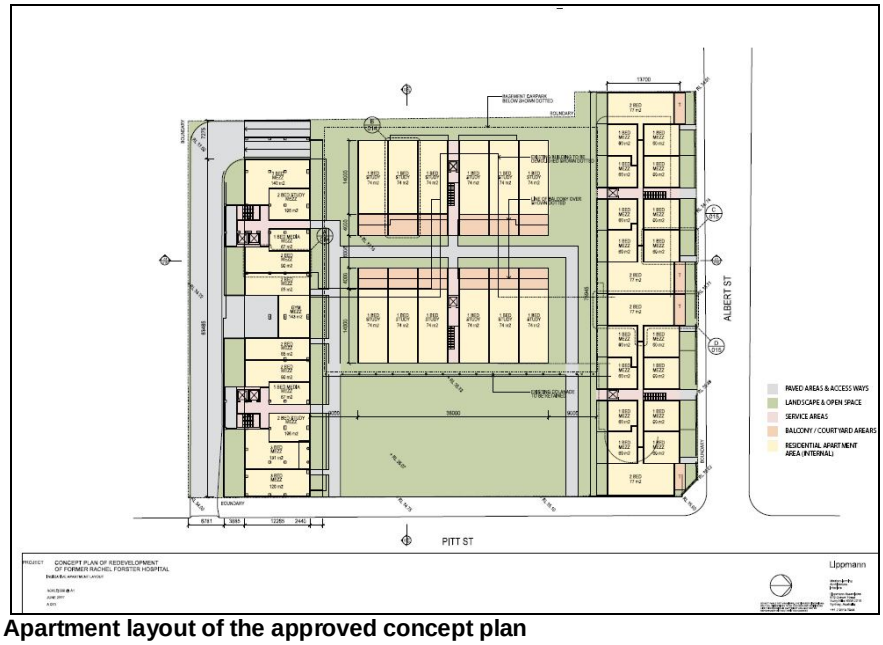

Figure 96: Apartment layout of the approved concept plan

8.13 Statements of Commitments

This report (Chapters 5 to 9) addresses and is accompanied by material (refer to Appendices) which responds to the DGRs and Statement of Commitments in relation to the following measures:

- Built Form and urban design - Architecture and Building Works (Appendix A: Architectural Plans and Appendix C: Shadow Diagrams), Urbis (Appendix I: Design Report), and Weir and Phillips Heritage Architects (Appendix H: Heritage Impact Assessment).

- Design excellence - Architecture and Building Works (Appendix A: Architectural Plan and Appendix C: Shadow Diagrams), Urbis (Appendix I: Design Report), and Weir and Phillips Heritage Architects (Appendix H: Heritage Impact Assessment).

- Traffic and parking – Transport and Traffic Planning Associates (Appendix G: Traffic Assessment).

- Public open space – Isthmus (Appendix B: Landscape Plan).

- Public domain – Isthmus (Appendix B: Landscape Plan).

- Heritage - Weir and Phillips Heritage Consultants (Appendix H: Heritage Impact Assessment) and Arboricultural Assessment and Development Impact Report prepared by Guy Paroissien Landscape Matrix Pty Ltd (Appendix Q: Arboricultural Assessment .

- Archaeology – Archaeological and Heritage Management Solutions (Appendix R: Archaeological Report).

- Structural integrity - Architecture and Building Works (Appendix A: Architectural Plan) and Enstruct (Appendix N: Structural Assessment).

- Geotechnical and site contamination and remediation - Douglas Partners (Appendix K: Supplementary Report on Geotechnical Investigation)

- Site infrastructure and services - Armstrong (Appendix O: Hydraulic and Fire Services Scheme and Appendix S: Services Letter).

- Management of Stormwater - Green Arrow (Appendix F: Stormwater Plan).

- Building Code of Australia Capability – Building Certificates Australia Pty Ltd (Appendix L: Indicative BCA Compliance Report).

- Accessibility - Architecture and Building Works (Appendix A: Architectural Plan).

- Ecologically sustainable development - BASIX prepared by ABC Planning P/L (Appendix P: BASIX Certificate).

- Construction Management Plan - Architecture and Building Works (Appendix A: Architectural Plan).

- Developer Contributions - in accordance with Redfern Waterloo Contributions Plan 2006 and Affordable Housing Plan 2006.

9 Key Issues

9.1 Built Form and Urban Design

9.1.1 Built Form

The proposed scheme provides a built form that:

- Maintains the 'H' configuration of the original hospital buildings.
- Protects the historic significance of the site through the adaptive reuse of the former surgery building (Building 1) and the iconic colonnade.
- Maintains the existing open space area to the east along Pitt Street.
- Is consistent with the design concept for the site identified in the Redfern-Waterloo Built Environments Plan (Stage 1).
- Improves upon the approved scheme through increased articulation to building facades. Building 1 seeks to achieve a better design outcome through the articulation of vertical and horizontal elements to the eastern and western ends of the building. This assists in book-ending the site and ensuring that the building reads as a series of related components as opposed to a uniform building.
- Is consistent with surrounding built form, including the 2 to 3 storey development on Pitt and Albert Streets and the adjoining and nearby apartment buildings.
- Responds to the existing built form on the site.
- Minimises overshadowing of open spaces and adjoining residences.
- Maximises solar access to the existing and proposed building envelopes on the site.
- Provides sufficient spacing between buildings.
- Provides sufficient private open space in the form of balconies and terraces.
- Addresses Albert Street and the proposed public open space to maximise causal surveillance.
- Reinforces the prevailing setbacks of Pitt and Albert Street.
- Maximises opportunity for onsite landscaping to enhance the landscape setting of the site and Pitt Street.
- Provides clear pathways to private entrances.

It is considered that the proposed built form is appropriate for the site and will not have an adverse visual impact on the site or surrounds.

9.1.2 Streetscape

In regard to streetscape, the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) outlines the following:

> *"The proposal has frontages to both Pitt Street and Albert Street and is successful in responding to the surrounding built form and overall character of both streets.*

Building 3 presents a three storey street wall height along the Albert Street frontage. This is a consistent number of storeys with that of the previous building in this location, and is similar in building mass to the residential buildings directly opposite the site on the northern side of Albert Street. Private entries are provided to ground floor units within Building 3, assisting in street activation and passive surveillance of the street.

Building 3 provides a strong street edge to Albert Street, consistent with the general setbacks and overall siting of buildings along Albert Street. The modulation to the façade and use of balconies and recessive elements also assists in 'breaking-up' the overall bulk of the scheme. This ensures the development reads as a number of different elements and not one continuous building mass.

Along Pitt Street, the development 'reads' as a number of individual buildings, with Buildings 2 and 3 being of a significantly reduced scale in comparison to Building 1. Whilst Building 1 is considerably larger in terms of height and its general massing, it is an adaptive re-use of the former surgery wing and thus is an established built form within the Pitt Street streetscape.

With respect to Building 2, it is setback from the Pitt Street streetscape at a distance that does not give it a dominant presence to the streetscape. This results in only Buildings 1 and 3 being readily apparent from Pitt Street, with both buildings being separated along the Pitt Street frontage by a large public open space area.

The ground floor levels of Buildings 1, 2 and 3 all provide residential entries that open onto the open space area. The residential levels located above also provide balconies which assist in the activation and passive surveillance of this open space area.

Furthermore, the proposed scheme reinforces the heritage nature of the site, by retaining and reusing elements such as the colonnade and the former surgery wing built form. Expressing these links to the site's historical significance within the local streetscape is a strong feature of the proposed scheme. This helps to strengthen the community based nature of the site while providing a unique backdrop to the public open space."

9.1.3 Setbacks

The existing street setbacks have generally been maintained. The proposed setbacks are considered appropriate given the proximity of existing residential development adjoining the site as well as the contextual setting of the site within an established inner city locality where small separation distances are a feature characteristic, such as the surrounding terraces along Pitt Street.

9.1.4 Building Height

As detailed in the Deign Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> "*as with the approved concept plan, the proposed scheme has been designed such that there is a 'stepping down' of building heights across the site. Building 1 is the tallest building on site at 6 storeys, being an adaptive re-use of the existing surgery wing building. Buildings 2, 3 and 4 are three storeys above ground level, providing an overall transition in height between Building 1 and the general scale and form of buildings along Pitt and Albert Streets."*

The proposed development seeks approval for height variations to the approved concept plan which has been discussed in detail in Section 8 of this report above.

9.1.5 Bulk

The proposed scheme will achieve a greater yield than that achieved in the Concept Plans, i.e. an increase in units from 150 to 159, yet the proposed scheme will have an FSR of 1.98:1, being lower than the maximum allowable FSR on the site of 1.99:1. Based on the site area of 6,923m^2, this equates to a gross floor area of 13,787.51m^2.

9.1.6 Retention of the Fabric of Heritage Items

In regard to the fabric of the heritage items that will be retained in the proposed scheme, the Heritage Impact Statement prepared by Weir Phillips dated August 2010 (Appendix H: Heritage Impact Assessment) states;

> *"The proposal respects the significance of the iconic view by retaining the eastern elevation of Building 1, providing an understanding of the original northern elevation of this building and retaining the colonnade of Building 2. The northern elevation of Building 1 could not be retained in full whilst also providing a reasonable level of residential amenity. The proposed northern elevation interprets the strong horizontal lines of the original elevation created by the balconies and the regularity of openings.*
>
> *Part of retaining an understanding of the iconic view involves respecting the layout of the front of the site. The Concept Plan established a public accessible open space to the area of the site fronting Pitt Street; this has been incorporated into the proposal. This area has a history of being used for passive recreation by hospital staff and visitors. Its role in providing open space for passive use will be continued. The strongest element within the space across all historic periods is the semi-circular driveway. This element is retained by the proposed landscaping scheme. It is also noted that provision is made for the retention of existing ground levels to allow the retention of mature trees.*
>
> *The footprint of the new buildings follows the pattern of the existing, with the exception of an additional building, approved by the Concept Plan, identified by the plans accompanying this application as Building 4. This building is to be*

located directly behind Building 2 and is of the same height. It will not interfere with the understanding of the 'iconic' view. An understanding of the original 'H' configuration of the buildings on the site is, in essence, retained."

9.1.7 Impacts on Adjoining Properties - Overshadowing and views

The Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report) states:

"There is a slight increase in overshadowing to adjoining properties due to the increase in height of Building 1. This increase is however negligible and as illustrated in the shadow Diagrams below, adequate solar access levels are maintained to adjoining properties.

The reduced height of Building 2 and 3 reduces the level of overshadowing cast from these buildings. The slight increase in height of 0.15m for Building 4 will not result in any noticeable increase in overshadowing."

Assessment of overshadowing has been undertaken on summer solstice, equinox and winter solstice and is considered to not adversely impact upon existing levels of solar access enjoyed by adjoining residential development. As demonstrated in the solar diagrams below all adjoining developments that currently enjoy solar access will continue to receive at least 3 hours of solar access on 21st June.

Figure 97: Shadow diagrams - 21st June

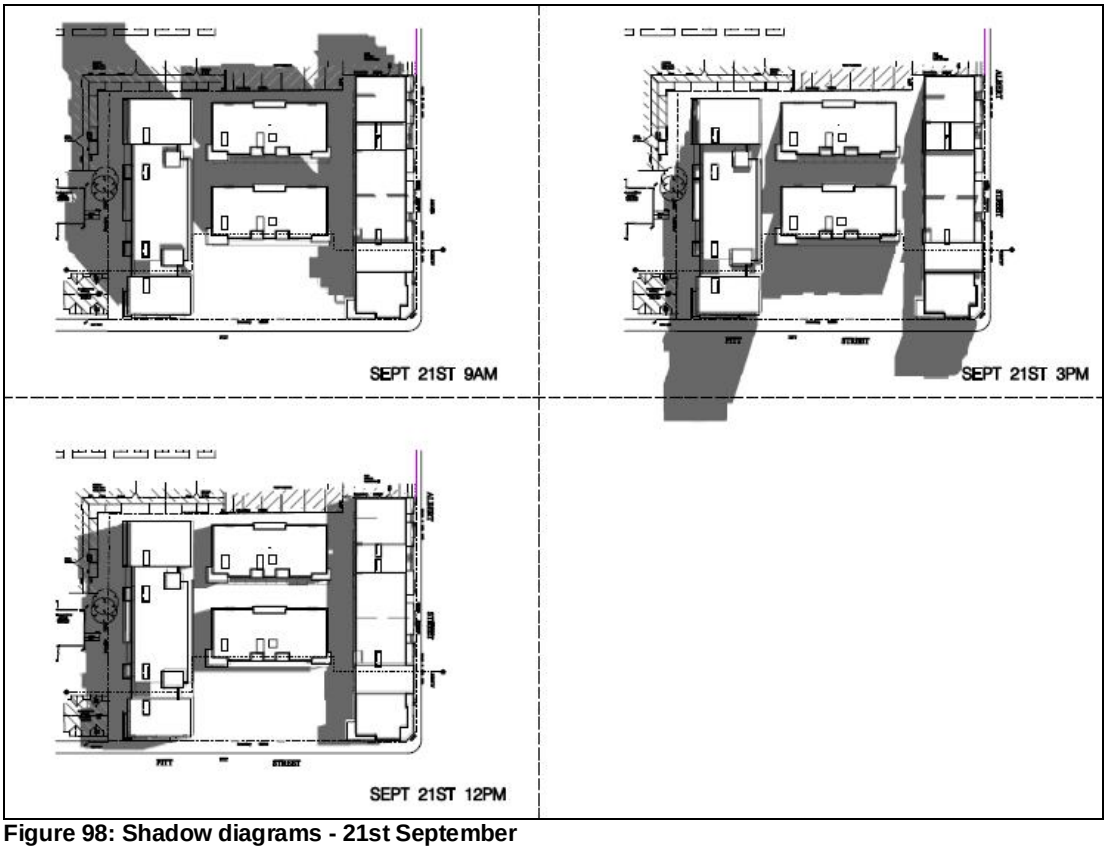

Figure 98: Shadow diagrams - 21st September

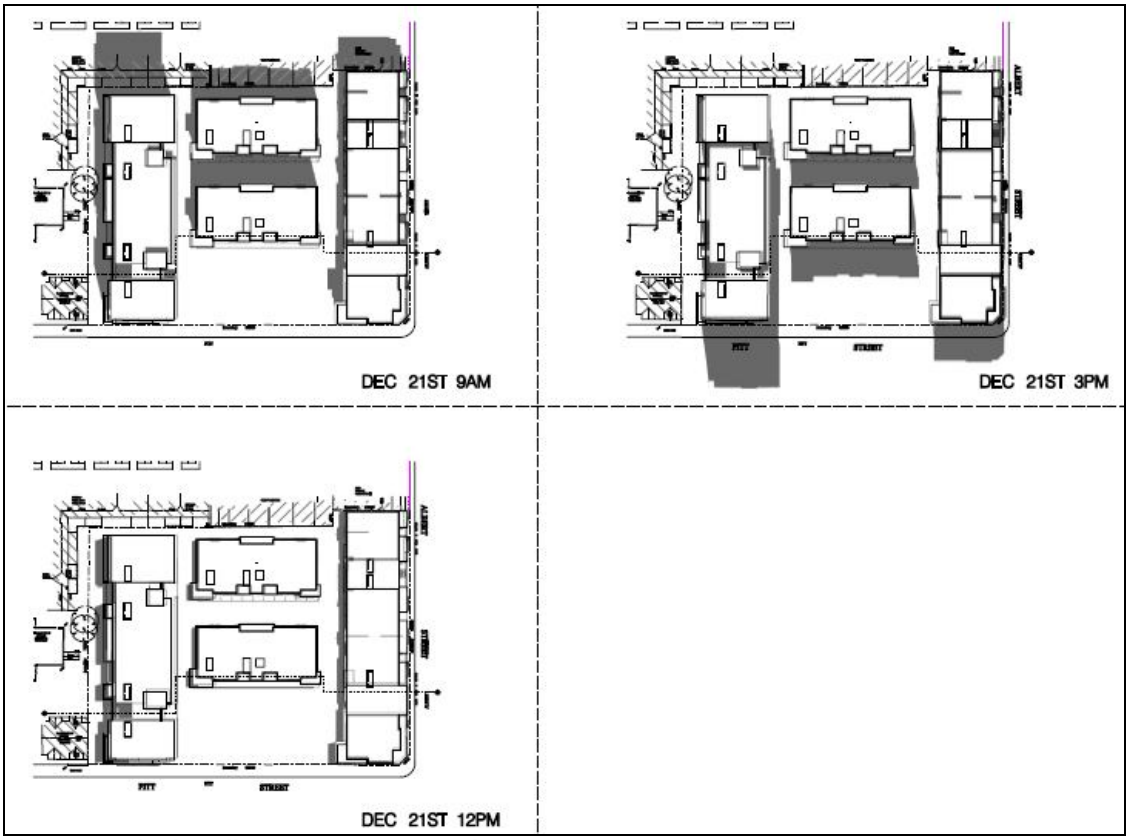

Figure 99: Shadow diagrams - 21st December

The southern boundary of the site is adjoined by a modern residential development up to six storeys in height, which presents a blank wall to the subject site. The sites to the west of the site are built up. Refer to the figures below. Overshadowing from the proposed development is therefore not going to impact greatly on the development to the south and west of the subject site. Moreover, the proposed development will not have unacceptable impacts on views to these adjoining sites.

Figure 100: Residential dwellings adjoining the site to the south

Figure 101: Residential dwellings adjoining the site to the south and the blank wall that presents to the site

Figure 102: Development adjoining the subject site to the south

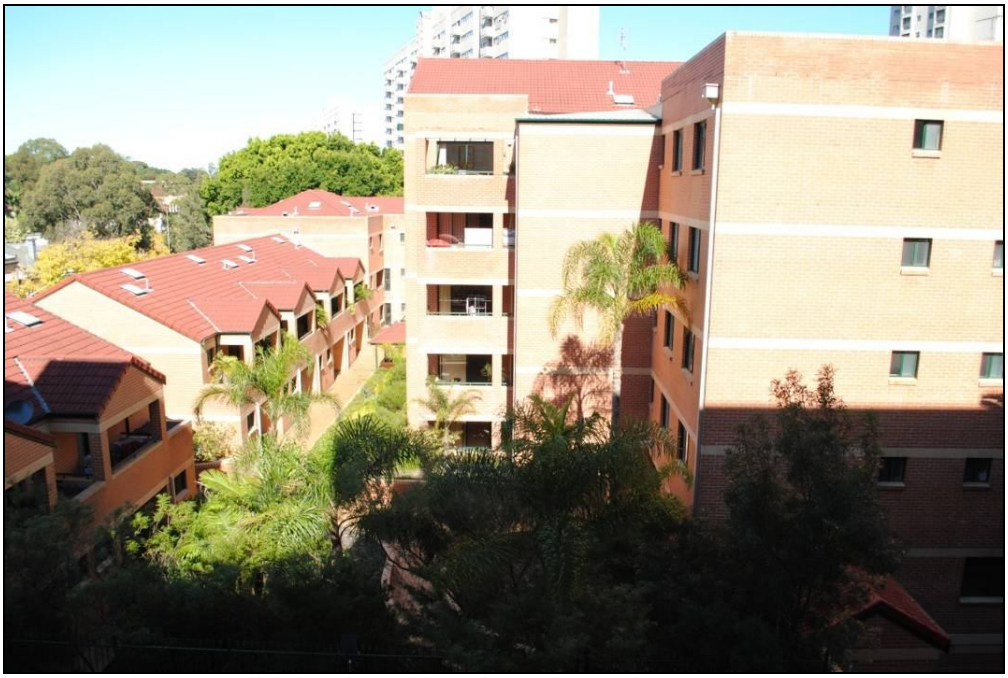

Figure 103: Development adjoining the subject site to the south

Figure 104: Development adjoining the subject site to the west

Figure 105: Development adjoining the site to the west

Shadows cast by the proposed development are relatively minimal due to the heights of the existing buildings on the site. Existing overshadowing of the adjoining residential development to the south is largely from the existing building (Building 1) and the adjacent existing residential apartment buildings overshadowing themselves.

Overshadowing from the 3 new proposed building envelopes are generally contained within the site, and overshadowing of communal open space areas is offset by the large area of public open space which will be accessible to residents of the development.

9.1.8 Impacts on Adjoining Properties - Visual Privacy and Amenity

Urbis has been appointed to undertake urban design works for the site. They have assisted Architecture and Building Works in providing a design suitable for the streetscape. It is considered that each of the buildings positively contributes to the site whilst providing for desirable residential amenity.

As outlined in the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"The proposed development has been designed taking account of the existing approved concept plan and the arrangement and configuration of the residential apartments. All efforts have been made to ensure consistency between the approved concept plan and the proposed development.*
>
> *There are however significant visual privacy issues and poor residential amenity outcomes evident within the approved concept plan and thus all attempts have been made through the proposed development to 'design out' these issues.*
>
> *Key concerns with the approved concept plan with respect to the lower ground floor (labelled basement in the approved concept plan drawings) of Buildings 1 and 3 include:*
> - *17 units have private open space which directly faces the wall of the car park located between Buildings 1 and 3.*
> - *10 south facing units in Building 1 have principal private open spaces that directly overlook the driveway which runs the length of the sites southern boundary.*
>
> *The above concerns have been directly addressed in the new scheme by:*
> - *The lowering of the basement parking levels, as discussed above, has eliminated the 17 sub-terrain apartments in Buildings 1 and 3.*
> - *The driveway access has been reconfigured such that it now does not run for the length of the sites southern boundary, but rather has been lowered such that courtyards have been provided for all ground floor south facing apartments in Building 1.*
>
> *Further, the proposed development predominantly retains the location and size of the existing floor plates of each of the four buildings. It does however adopt appropriate mitigation measures ranging from planter boxes, privacy screens, offsetting of windows in an attempt to maximise visual privacy for residents of the proposed development and adjoining properties."*

The building setbacks of the adjoining buildings and proposed buildings will not result in any overlooking of external or indoor living areas to adjoining properties or to units within the site. The existing Heritage Listed Building 1 is considerably setback from the

adjoining development to the south, whilst a deep soil landscaped area is proposed as a screen buffer between Building 4 and adjoining development to the west.

The development adjoining the subject site to the south, pictured in the photos below, has a blank façade fronting the proposed development and will be setback between 7m - 12m from the proposed building.

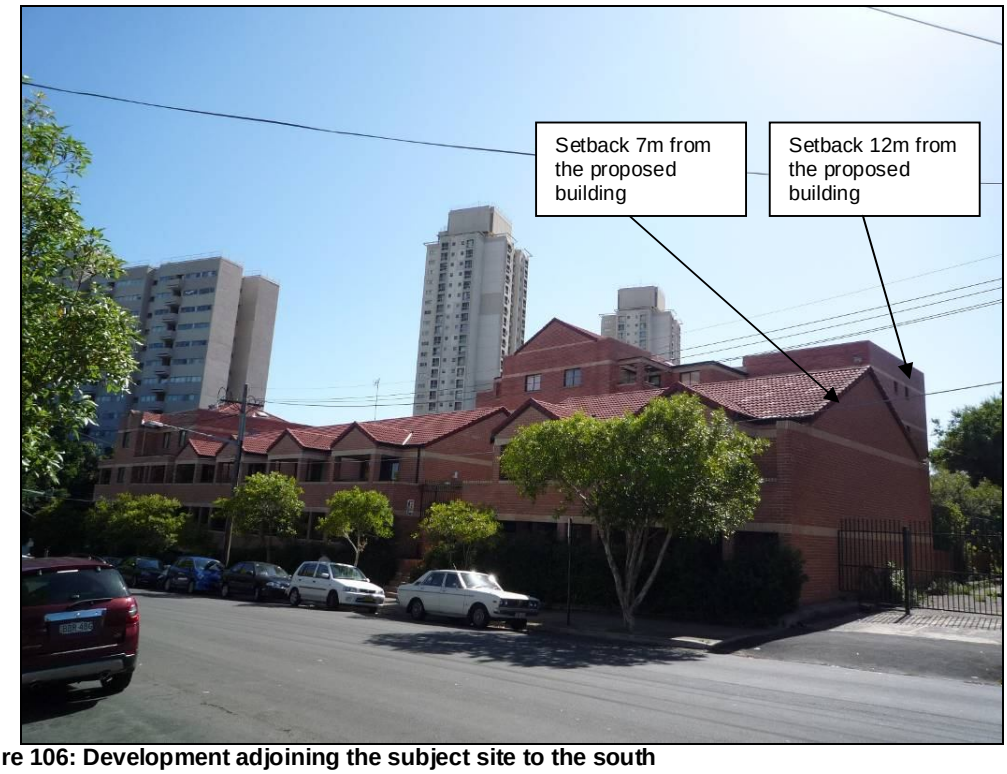

Figure 106: Development adjoining the subject site to the south

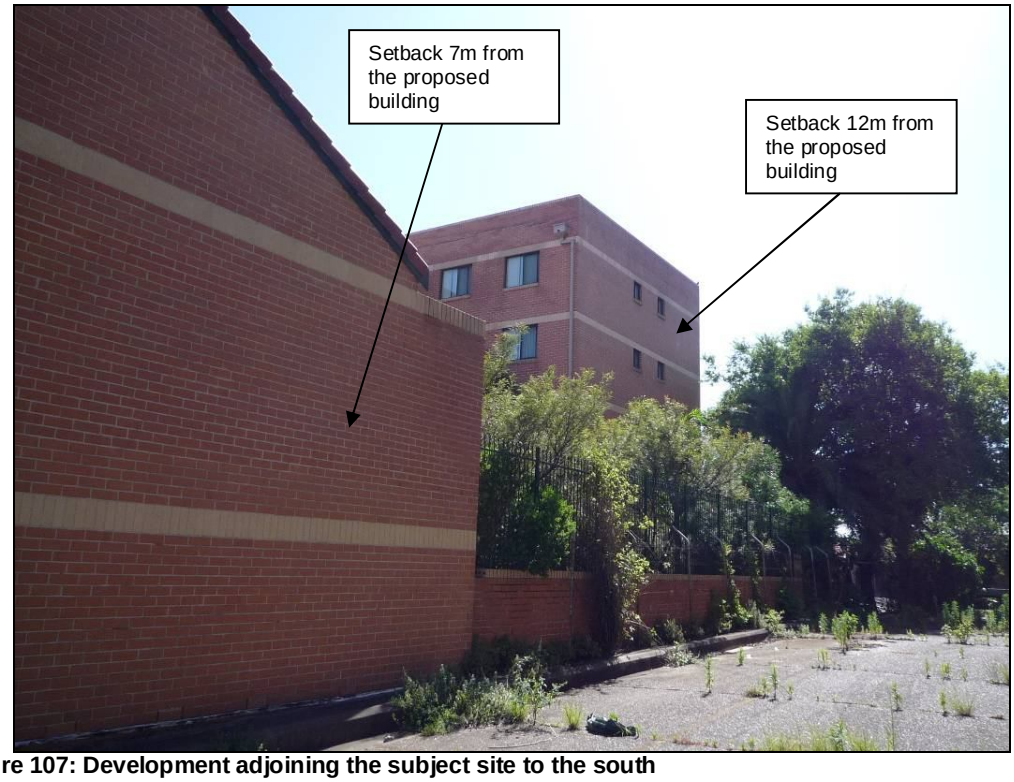

Figure 107: Development adjoining the subject site to the south

Figure 108: Development adjoining the subject site to the south

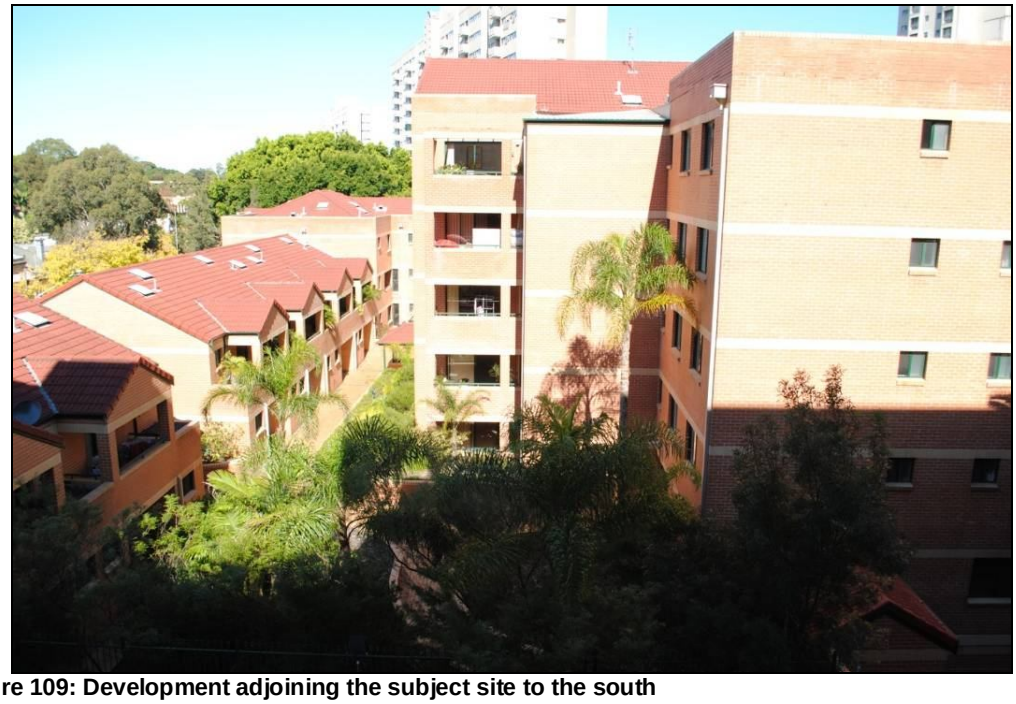

Figure 109: Development adjoining the subject site to the south

The development adjoining the subject site to the west, in the pictures below, has a blank façade fronting the proposed development and will be setback 4m from the proposed building. This 4m setback will consist of deep soil landscaping.

Figure 110: Development adjoining the subject site to the west

Figure 111: Development adjoining the site to the west

Figure 112: Development adjoining the site to the west

Figure 113: Development adjoining the site to the west

9.2 Public Domain

The proposal will substantially improve the appearance of the site and its contribution with the local and broader community. The proposed orientation of units to the respective street frontages to Pitt Street (eastern elevation) and Albert Street (northern elevation) will engage the development with the public domain and assist with passive surveillance.

The proposed scheme has been designed to ensure clear sightlines are achieved between public and private spaces. This is achieved by providing a detached building form which promotes sightlines from Pitt Street through the site to the western boundary. Providing a built form that wraps around the proposed public open space and fronts Pitt and Albert Streets further promotes causal surveillance of the pubic and private realm.

The public open space is clearly designated from the remainder of the site visually whilst also being at a level distinct from the private components of the site. The pedestrian linkages are clearly legible from the respective street frontages whilst maintenance of the existing vehicle entry point to the basement car parking levels also assists with legibility.

The siting of the driveway entry at the extreme southern end of the site allows for an uninterrupted and positive streetscape outcome. The siting of the driveway adjacent to the blank wall of the southern neighbour ensures that this is not at the expense of any amenity associated with the southern neighbours. The restriction of the single vehicle access point to Pitt Street is also a desirable streetscape outcome for Albert Street. The proposed corner treatment is also supported by Urbis as it achieves a bold presence to the intersection of Albert and Pitt Streets.

Redfern railway station is located 550m of the site whilst Redfern Park and Oval are located within 250m of the site. Pedestrian linkages between the site to Redfern Station and Redfern Park and Oval are via existing public streets, namely Pitt Street, Albert Street Redfern Street and Philip Street, as demonstrated in the figure below.

Figure 114: Pedestrian linkages to Redfern station highlighted in blue and pedestrian linkages to Redfern Oval and Park highlighted in red

9.3 Landscaping and Open Space

Isthmus has prepared a Landscape Concept Plan (Appendix B: Landscape Plan). This revised design is similar to the approved landscaping plans.

The open space area on the eastern boundary fronting Pitt Street is proposed to be dedicated to Council. This area is approximately 1,060m² and will be fronted on 3 sides by residential apartments and accessed off Pitt Street. The proposed open space has been provided in accordance with the open space and public domain strategy contained in the Redfern-Waterloo Built Environmental Plan (Stage Once) 2006.

The proposed public open space preserves the landscape and open space characteristics of the site and Pitt Street, and does not include any vehicular access points that could result in pedestrian and vehicular conflicts. Pedestrian linkages between the site, to Redfern Station and other proposed open space are via existing public streets including Redfern Street and Albert Street.

The proposed public open space provides a public benefit to the community who will be able to access and use the open space. Future residents will also benefit from the provision of a large open space adjacent to the development for recreational purposes.

Private open space will generally be provided in the form of balconies and terraces with opportunity for courtyards from the lower ground level apartments.

The Landscape Concept Plan below demonstrates that the proposed landscaping will enhance the quality of the development, improve the streetscape and public domain, provide privacy and visual amenity for residents.

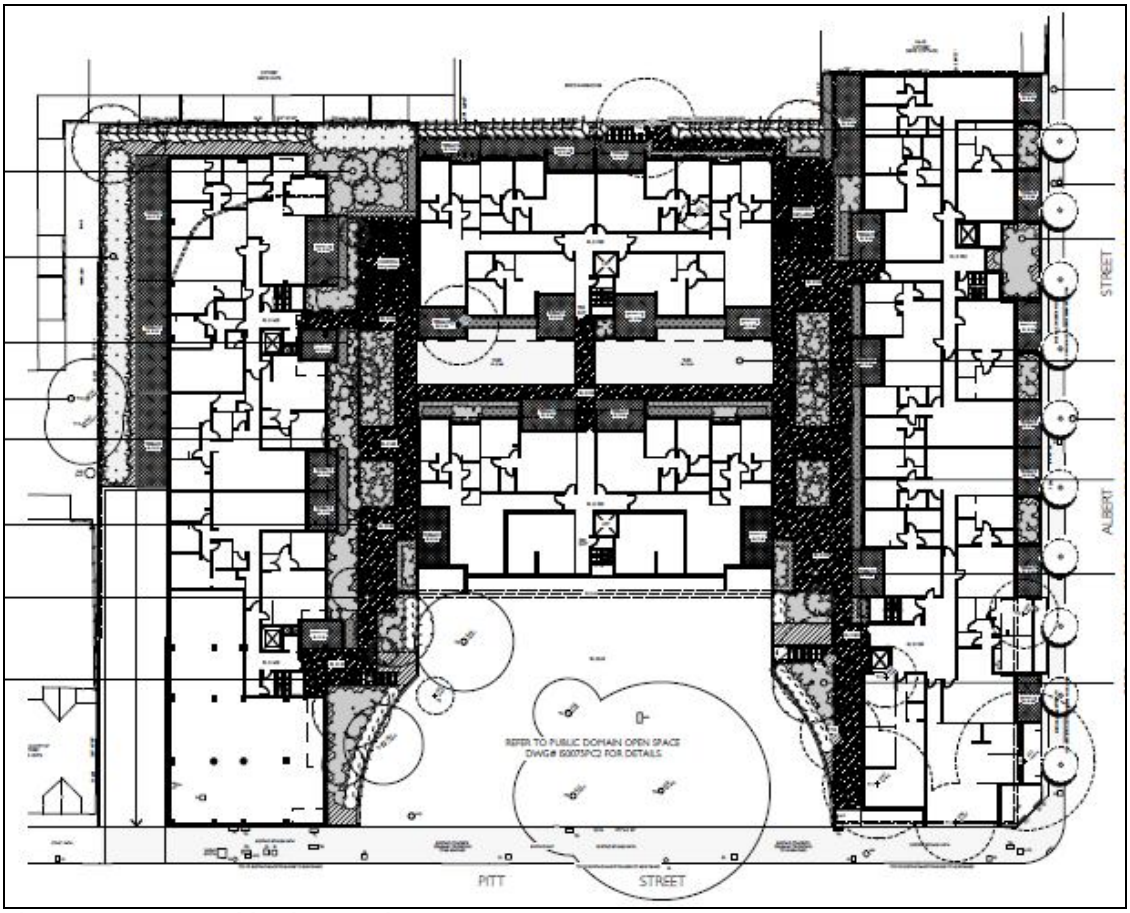

Figure 115: Proposed landscape plan

9.4 Trees

The design of the Landscape Concept Plan incorporates a large area of open space and seeks to maximise the provision and retention of trees on site. However a number of trees will require removal to facilitate the development and its construction. Tree retention and removal is in accordance with the Arboricultural Assessment and Development Impact report prepared by Guy Paroissien Landscape Matrix Pty Ltd (refer to Appendix Q: Arboricultural Assessment).

The report analysed 19 individual trees or groups of trees on the site and adjoining properties. The report identifies those trees that require removal or are potentially impacted upon by the proposed development, as well as those trees that should be

considered for removal. Recommendations on tree protection measures are also included.

The Report concluded:

> *"of the 19 trees assessed, 14 of the trees are in good health, 4 are of moderate health and 1 is in poor health. 2 of the trees assessed are located on the adjoining property to the south (tree numbers 18 and 19). In regard to landscape significance the majority of the trees are either of moderate landscape significance (6 trees) or of low landscape significance (4 trees). 6 of the trees are of moderate to high or high landscape significance and one is considered significant in the landscape. One of the trees is an environmental pest species of no landscape significance.*
>
> *Of the 19 trees on the site that have been assessed the following 8 trees require removal to facilitate the proposed developments:*
> - *Tree # 10 Syzigium luehmannii (Small-leaved Lilli Pilli)*
> - *Tree # 11 Lophostemon confertus (Brushbox)*
> - *Tree # 12 Celtis sinense (Chinese Hackberry)*
> - *Tree # 13 Celtis sinense (Chinese Hackberry)*
> - *Tree # 14 Jacaranda mimosifolia (Jacaranda)*
> - *Tree # 15 Plumeria rubra (Frangipani)*
> - *Tree # 16 Ceratonia siliqua (Carob Tree)*
> - *Tree # 17 Celtis sinense (Chinese Hackberry)*
>
> *2 of these trees (No.s 12 and 16) have been recommended for removal along with a further 2 trees (2 and 5), regardless of the proposal, due to declining health or condition, structural issues relating to the trees or their unsuitability to the site.*
>
> *In addition to the 4 trees recommended for removal it is recommended replacement planting be implemented to allow for the staged removal of all specimens of Celtis sinense (Chinese Hackberry) from the site due to this species weed status.*
>
> *In addition to the above it is also proposed to remove the 2 rows of small, semi mature Camellia sasanqua (Chinese Camellia) identified as tree numbers 7 and 8. It is noted that these 2 rows of trees are exempt from protection under City of Sydney Council's Tree Preservation Order as they are below the minimum height for protection under that order of 5 metres.*
>
> *To facilitate construction of the proposed development the following 3 trees will be potentially affected:*
>
> - *Tree # 9 Liriodendron tulipifera (Tulip Tree)*
> - *Tree # 18 Glochidion ferdinandii (Cheese Tree)*
> - *Tree # 19 Celtis sinense (Chinese Hackberry)*

Given the extent of potential impact to Tree # 9, the existing structural problems and the short Safe Use Life Expectancy (SULE) of the tree, it is recommended consideration be given to its removal. With regard to Trees # 18 and 19, these trees are located on the adjoining property to the south, adjacent to the proposed driveway. Provided the levels of the driveway are maintained the trees can be retained.

The following four (4) trees are recommended for removal due to poor/declining health, structural problems, risk of failure and noxious weed species. Two of the trees (# 12 and 16) are located within the proposed building footprints.

- Tree # 2 Ligustrum sinense (Small-leaved Privet-noxious weed)
- Tree # 5 Cinnamomum camphora (Camphor laurel)
- Tree # 12 Celtis sinense (Chinese Hackberry)
- Tree # 16 Ceratonia siliqua (Carob Tree)

The recommendations of the Arboricultural Assessment and Development Impact report have been incorporated in the proposed landscaping of the site prepared by Isthmus. The retention of large, mature trees within the public open space area along the Pitt Street boundary will soften the impact of the new built form and provide a garden setting to the street.

9.5 Overshadowing

9.6.1 Impact on proposed residential buildings

Solar access to the proposed residential units is discussed in detail in Section 7.3 of this report. The majority of the units are located within Buildings 1 and 3, which have a northern orientation. Apartments likely to receive a lesser amount of solar access are those proposed to be located at ground and first floor level of Buildings 2 and 4 due to their east-west orientation.

Building 3 has been altered from the original Concept Plan to allow for the apartments on the corner of Pitt and Albert Street to receive adequate solar access into the rooms. There is very minor increase to the overall height of the building despite the apartments being elevated, refer to the table below.

	Concept Plan	**Proposed**
Building 3	RL 45.05	RL 44.95

Table 16: Height variations

Section 7.3 State Environmental Planning Policy 65 (Design Quality of Residential Flat Buildings), demonstrates that 62% of the units in the proposed scheme receive 2 hours of solar access.

Given the retention of existing heritage elements, the proposed solar access achieved for the proposed units is considered acceptable. It is inevitable for there to be overshadowing impacts to the buildings on site if the heritage buildings are to be retained as part of the proposed scheme.

It is considered that the proposed development will provide an acceptable level of solar access to apartments and open space areas within the site.

9.6.2 Impacts on adjoining developments

Shadows cast by the proposed development is relatively minimal due to the heights of the existing buildings on the site. Existing overshadowing of the adjoining residential development to the south is largely from the existing building (Building 1) and the adjacent existing residential apartment buildings overshadowing themselves.

Overshadowing from the 3 new proposed building envelopes are generally contained within the site, and overshadowing of communal open space areas is offset by the large area of public open space which will be accessible to residents of the development.

It is considered that the envelopes proposed will not significantly impact the adjoining residential development to the south and west.

Assessment of overshadowing has been undertaken on summer solstice, equinox and winter solstice and is considered to not adversely impact upon existing levels of solar access enjoyed by adjoining residential development. As demonstrated in the solar diagrams below all adjoining developments that currently enjoy solar access will continue to receive at least 3 hours of solar access on 21st June.

Figure 116*:* Shadow diagrams - 21st June

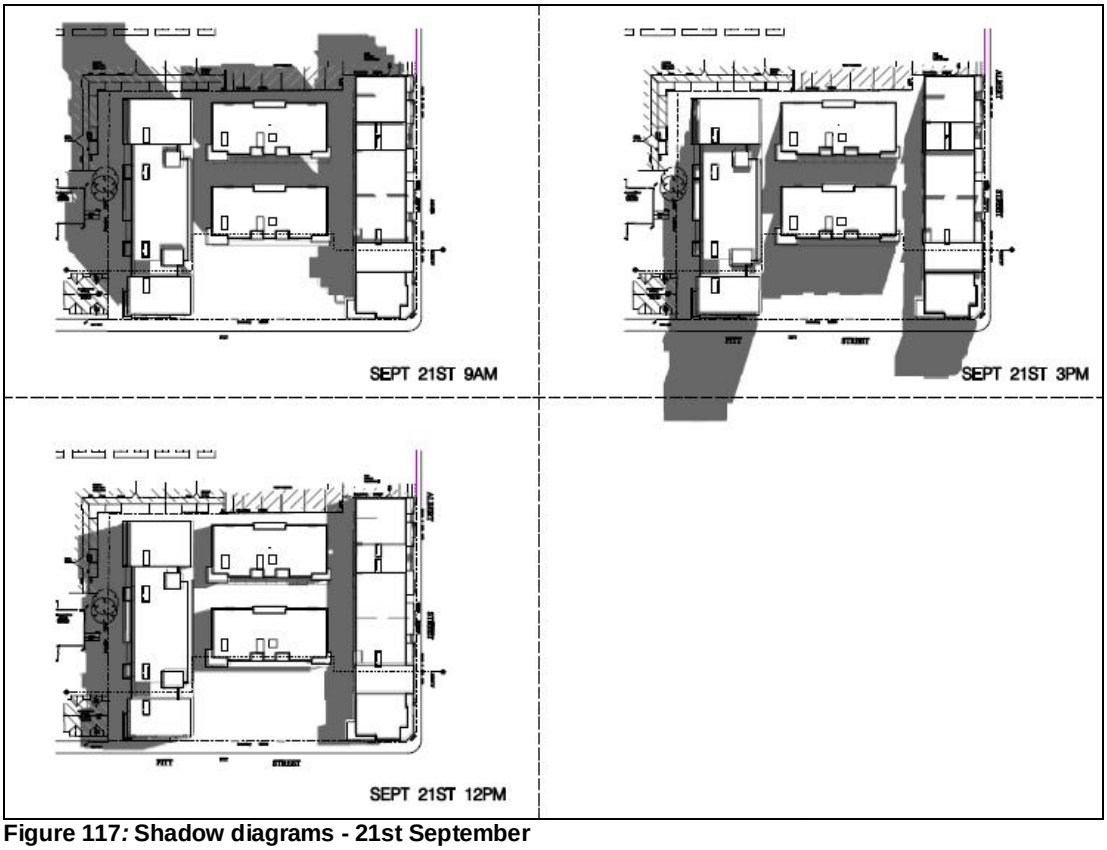

Figure 117*:* Shadow diagrams - 21st September

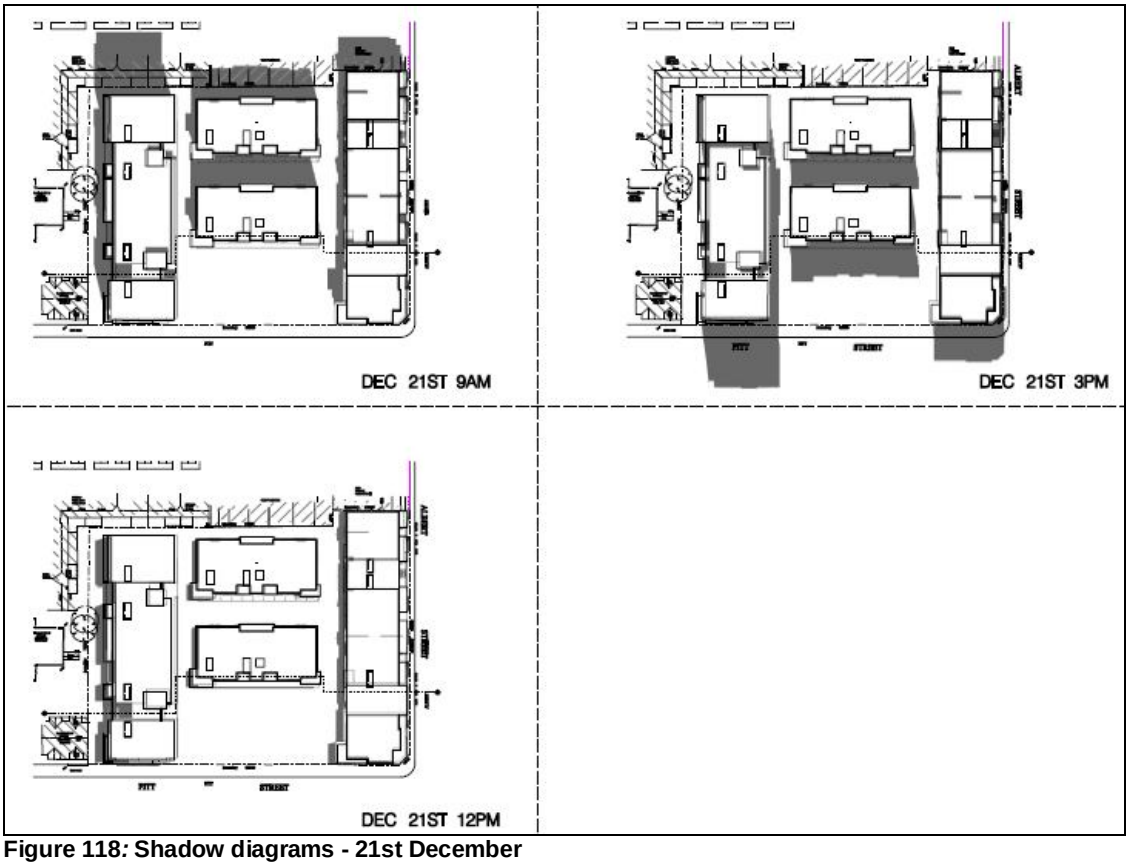

Figure 118*:* Shadow diagrams - 21st December

9.6 Natural Ventilation

As outlined in Section 7.3 State Environmental Planning Policy 65 (Design Quality of Residential Flat Buildings), 60% of the residential units in the proposed scheme are naturally cross ventilated, therefore meeting the requirements of SEPP 65. In the concept plan only 39% of the units were cross ventilated.

9.7 Traffic and Access

The Assessment of Traffic and Parking Impact Statement prepared by Transport and Traffic Planning Associates dated August 2010 (refer to Appendix G: Traffic Assessment) concludes that:

- *The traffic generation of the proposed development will be less than that associated with the former use;*
- *The traffic generation of the proposed development will not present any adverse traffic implications;*
- *The proposed parking provision will adequately serve the demand associated with the development; and*
- *The proposed access, internal circulation and parking arrangements will be appropriate to current design standards.*

The proposed development will contain no internal roads and the site will be accessed only from Pitt Street. The proposal provides sufficient parking while also being within close proximity to Redfern Railway Station and numerous bus routes as shown below.

Figure 119: Aerial photo showing the path (in red) of travel to Redfern Railway Station (550m)

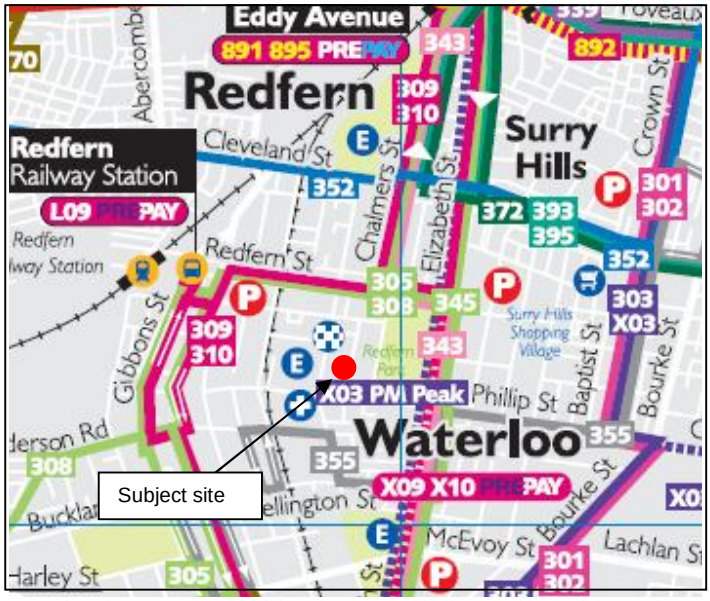

Figure 120: Map illustrating bus routes within close proximity of the subject site

The development site is highly accessible to both road and rail based public transport services being less than 400 metres from high frequency bus services on nearby Redfern Street and Regent Street and approximately 500-600 metres from Redfern Railway Station.

Details of the bus routes which operate in the vicinity of the site are outlined in the Traffic Report and provided in the table below.

Route №	Service Frequency	Route Description
305	Mon-Fri (Peak Hour Services)	Railway Square to Mascot via Redfern, Alexandria and Beaconsfield
308	Daily Daytime Services	Marrickville to City via St Peters, Alexandria and Redfern
309	Daily Full Time Service	Port Botany to City via Broadmeadow, Botany, Mascot and Redfern
310	Daily Full Time Service	Eastgardens to City via East Botany, Mascot and Redfern
355	Daily Daytime Service	Marrickville to Bondi Junction via Enmore, Newtown, Waterloo, Redfern, Surry Hills and Moore Park.

Figure 121: Bus routes which operate in the vicinity of the site

The Assessment of Traffic and Parking Impact Statement conducted a parking assessment with reference to the South Sydney DCP 11. It is noted that Clause 3 of the SEPP (Major Projects) provides that all other environmental planning instruments do not apply to the Redfern-Waterloo Authority sites, except for other State Environmental Planning Policies, however in this instance the South Sydney Parking DCP is considered relevant to establish if sufficient on-site parking has been provided as part of the proposal.

The Assessment of Traffic and Parking Impact Statement (Appendix G: Traffic Assessment) outlines:

> *"In relation to residential developments, DCP 11 stipulates the following parking requirements, which are presented as a target provision, requiring justification to provide more or less than required:*
>
> | | | |
> |---|---|---|
> | *Residential Units & Townhouses* | | |
> | *1 bedroom units and bedsitter* | = | *0.5 spaces per unit* |
> | *2 bedroom units* | = | *0.8 spaces per unit* |
> | *3 or more bedroom units* | = | *1.2 spaces per unit* |
> | *Separate visitor parking* | = | *1 space per 6 units* |
>
> *Application of these rates to the proposed development indicates the following requirements:*
>
> | | | |
> |---|---|---|
> | *49 x one-bedroom* | = | *24.5 spaces* |
> | *13 x one-bedroom + study* | = | *6.5 spaces* |
> | *83 x two-bedroom* | = | *66.4 spaces* |
> | *14 x three-bedroom* | = | *16.8 spaces* |
> | *visitors = 159 units @ 1 per 6* | = | *26.5 spaces* |
> | ***Total*** | **=** | ***141 spaces*** |
>
> *In order to provide sufficient parking within the development and to ensure that the proposal does not impact upon the existing on-street parking provision, which is subject to high demands, it is proposed to provide a total of 170 parking spaces within the car park, which will be appropriately distributed in relation to the apartment sizes. It is important to note that the surrounding residential development comprises older style dwellings and terraces with very little off-street parking available throughout the area. In this regard, it is essential that the parking actively associated with the proposal does not impact upon the on-street availability."*

As outlined in the Design Report prepared by Urbis dated February 2010 (Appendix I: Design Report):

> *"The proposed amendments to the basement parking levels provides a consolidated basement parking arrangement whereby parking on site has been increased from 161 spaces to a total of 170 spaces.*
>
> *With respect to access to the basement parking levels, the proposed development provides an overall improved outcome than that provided for in the approved concept plan. The basement entry driveway previously extended for the length of the southern boundary of the site. This has been redesigned so that the driveway into the basement now only extends for half the length of the southern boundary. This not only reduces noise levels for units on the southern side of Building 1, but also provides ground floor units with large private courtyards."*

The subject site is located in close proximity to the blue and green cycling routes as illustrated in the City of Sydney cycling routes map below. Secure bicycle storage will be provided in the basement parking levels of the proposed development.

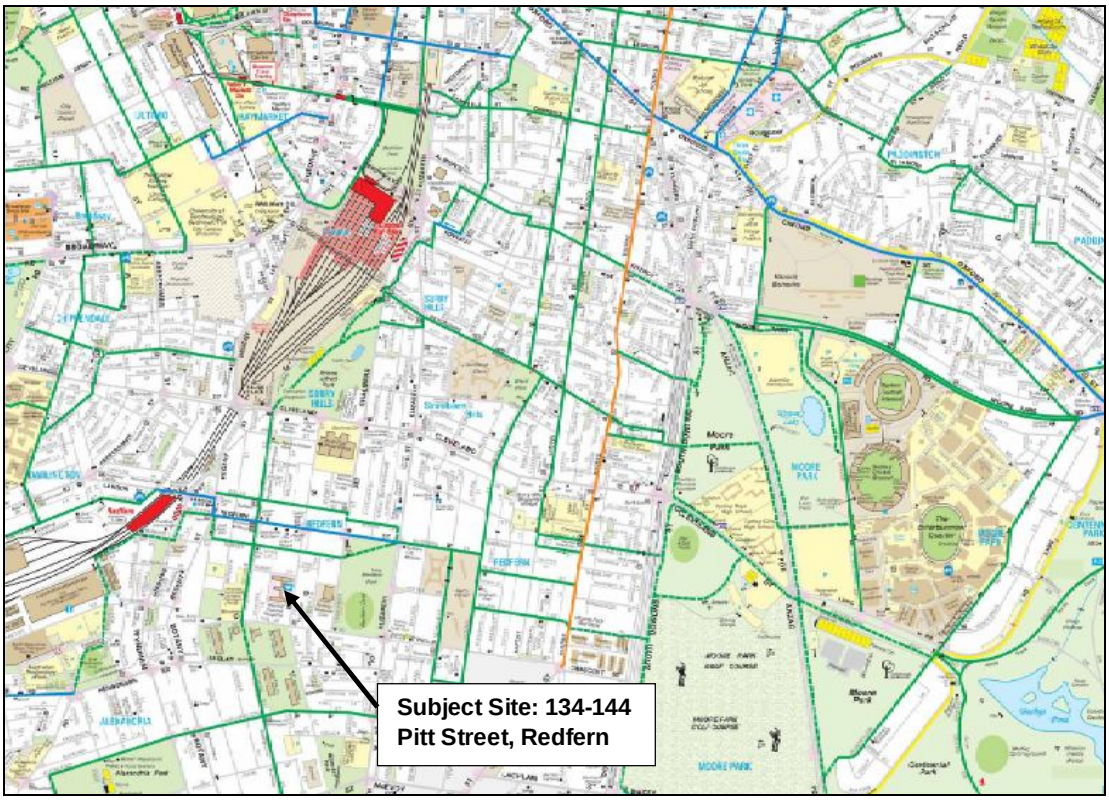

Figure 122: City of Sydney cycling routes map

9.8 European Heritage

A Heritage Impact Assessment prepared by Weir and Phillips dated August 2010 is contained in Appendix G. The proposed development will only remove a portion of the existing building located on the site. The existing colonnade has been retained which was seen as an important part of the existing site. The report provides a comprehensive historical overview of the site, an assessment of the site significance and demonstrates that the proposal is sympathetic to the primary heritage features of the site in its adaptation for residential purposes. The key findings and conclusions of the heritage assessment are outlined below and have informed the formulation of the concept plan.

> *"The proposed adaptive reuse of the Former Rachel Forster Hospital Site for residential purposes represents a fundamental change in use. The demographics of the area, medical technology and the provision of health services and education have progressed substantially since its construction. The site and building layouts are obsolete for future hospital purposes and would never be considered for use as such. Adaptive reuse in the proposed manner is provided for by the Concept Plan. The proposal allows the recognition of those things that contain the memories of the place and the retention of the most significant architectural features of the building complex.*

The site has state historic and social significance as a place where a wide range of medical and social services were provided to women and children from 1937 until 2000 and to men from 1967 to 2000. The association of the site with medical services extends back to the early colonial period. The site has state historic significance for its association with female pioneers of twentieth century medicine in New South Wales, six of whom opened the Hospital's predecessor- the New Hospital for Women and Children- in Surry Hills in 1922. When opened in 1922, the Hospital was part of a wider movement to improve women and children's health arising out of female emancipation.

Much of the significance of the site is vested in its founders, its role within the development of medical services in New South Wales and the association derived from its use by the general public over many years.

The social significance of the site is best maintained and recognised through a comprehensive interpretation strategy, a central component of which is the Interpretation Room that will be provided. Moveable heritage, including some of the many commemorative plaques and boards, will be placed in this room. Social significance is also recognised through the perpetuation of the name 'Rachel Forster.'

The former Rachel Forster Hospital Site has aesthetic significance as a fine example of modernist hospital design and the work of Irwin Leighton (1892-1962) and has aesthetic significance for its contribution to the streetscape as a well-designed modernist complex. The aesthetic significance of the building is vested in its functionalist design. As the building was built on a limited budget, much of it is humble and utilitarian in design, with rear and side elevations reflecting the function of the interiors in unrelieved face brick walls. The elevations of the complex that encapsulate the building as an example of functionalist architecture are confined principally to the east elevation of Building 2 and the north and east elevations of Building 1. It is these elevations that comprise the 'iconic view', that is, the view towards the hospital most frequently photographed in the past (and used, for example, to identify the hospital in publications) and which comprise the most significant view from the public domain.

As provided for by the Concept Plan, the proposal takes into consideration these significant elevations and maintains an understanding of the iconic view. Buildings of low significance are replaced by purpose built buildings which take into account this iconic view, the 'H' configuration of the original buildings, the significance of the front forecourt and the impact on nearby heritage items and the Conservation Area in which the site is located.

In recognition of its heritage significance, the site will be archivally recorded to NSW Heritage Branch standards prior to the commencement of work."

Section 9.1.6 Retention of the Fabric of Heritage Items above outlines how the fabric of the heritage items will be retained in the proposed scheme.

9.9 Archaeology

Archaeological Assessments have been prepared by Archaeological & Heritage Management Solutions Pty Ltd, dated 14 June 2007 and 13 July 2007 (Appendix R: Archaeological Report). The Archaeological Assessment dated 14 June 2007 provides a preliminary assessment of the extent and cultural significance of any historical archaeological relics and any Aboriginal sites or objects at the site.

The report provides an initial assessment of the following:

- The site history prepared by Wier and Philips Pty Ltd for the Heritage Impact Statement;
- Visible historic relics identified at the site, including remnants of a well structure located in the east side of the basement in the former North Wing building at the hospital (Building 2);
- Archaeological potential and significance of the historic relics, including whether or not they are associated with occupation of the site by William Redfern;
- Potential for the site to contain remains of Aboriginal occupation;
- Archaeological impacts of the proposed concept plan; and
- Management recommendations.

The Archaeological Assessment dated 14 June 2007 and the figure below demonstrates the extent of the area considered to have the potential to contain historical archaeological relics and/or Aboriginal sites (red shading). This area is limited to the eastern frontage of the site and the eastern portion of the existing Building 2 between the main corridor in the basement and the front building wall. The area identified by the dotted green line in the figure below shows the location and extent of the well. The area shaded blue is below slab and the unshaded areas within the building footprint denotes the basement corridors and rooms. Neither of these areas is considered to have potential to contain remains of past occupation.

The only portion of the site that would be directly impacted by the construction of the proposed development is the area identified by the dotted green line. The balance of the area of archaeological potential (shaded red) is limited to the eastern frontage of the site and will only be subject to superficial impacts as the majority of this area is proposed to be dedicated for public open space.

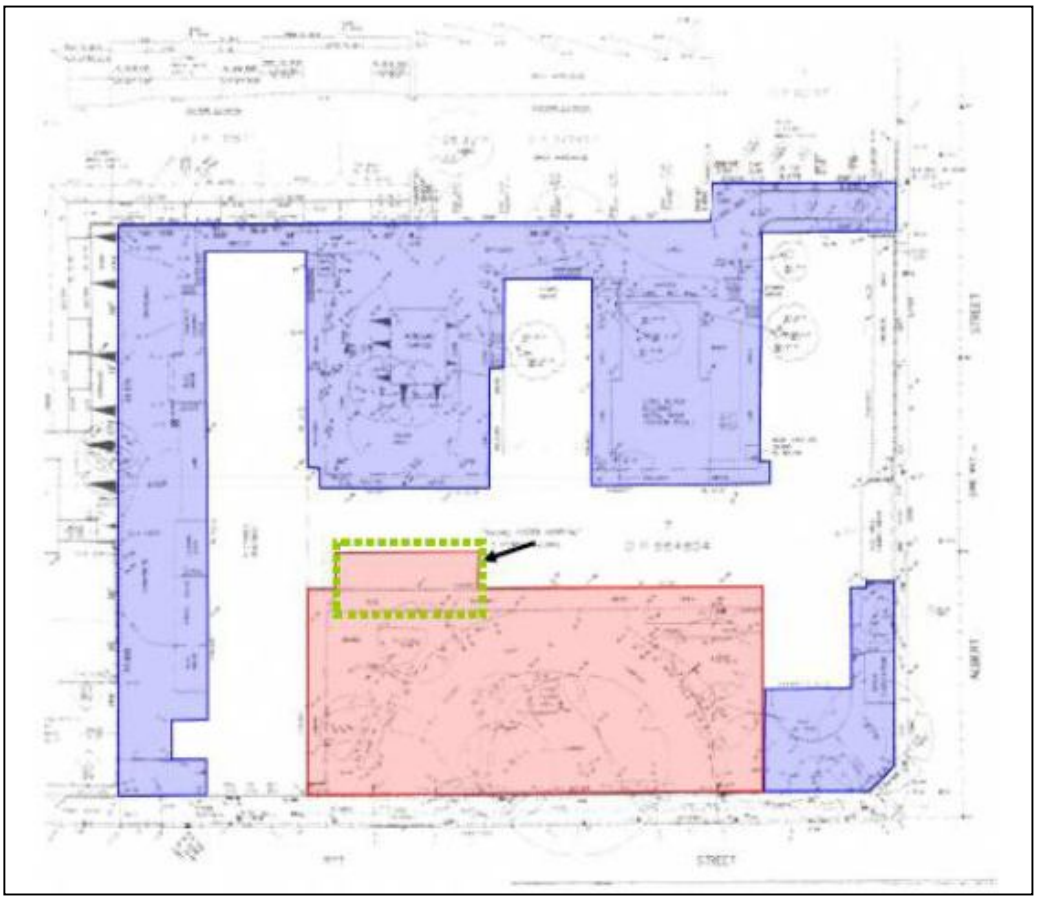

Figure 123: Overlay plan of Rachel Forster Hospital
The overlay plan of Rachel Forster Hospital above shows the location of the well in the basement (arrow) and the probable extent of soil deposits with potential to contain physical remains of historical and Aboriginal occupation (shaded red).

The Archaeological Assessment dated 14 June 2007 prepared by Archeological and Heritage Management Solutions Pty Ltd (Appendix R: Archaeological Report) states,

> *"The proposed development site includes a localised area that would be impacted by the proposal and which contains relics associated with historic occupation considered to date to the period between the mid-Nineteenth Century and 1941. . . The identified historic relics are assessed as having local heritage significance, on the basis of information to date, however further investigation, including targeted research is required to determine the significance of the historic relics."*

The Archaeological Assessment dated 14 June 2007 (Appendix R: Archaeological Report) recommends:

1. *Targeted historical research be undertaken to determine whether or not the relics identified at the site are associated with occupation by William Redfern, or other significant historical occupation.*
2. *Following completion of this historical research a revised statement of significance should be prepared for the site, taking into consideration any results obtained by the research.*

The Archaeological Assessment dated 13 July 2007 aims to clarify the age and cultural significance of archaeological relics, in particular the historic well in the basement of the Rachel Forster Hospital. The Assessment (Appendix R: Archaeological Report) concludes:

> *"no documentary evidence was found to suggest that structures were located on the subject land in the period to or during William Redfern's occupation of the site. Similarily the evidence for alienation of the subject property prior to Redfern's ownership is not confirmed by available historic documentation. . . There is no documentary evidence to suggest that Redfern or his heirs constructed any buildings or any other forms of construction including a well on the subject area prior to the subdivision of 1842."*
>
> *"the historic relics are assessed as being locally significant for their values in relation to the assessment criteria (a) History – important in the course of pattern of NSW's cultural or natural history (or the cultural or natural history of the local area); and (e) Potential to yield information – potential to contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)."*

9.10 Ecologically Sustainable Development

Stage One of the Redfern Waterloo Built Environment Plan (BEP) was released on 30 August 2006. The BEP contains strategies for ESD. The proposed development complies with these strategies by applying passive design principles. The orientation and design of development minimises the need for mechanical heating and cooling and artificial lighting. All units receive good access to sun, natural or cross ventilation whilst also having good internal amenity in relation to visual and acoustic privacy.

The majority of units enjoy a northern orientation with only 15% of living areas having a southern orientation. The proposal scheme maximises the number of dual aspect ensuring solar access and natural ventilation to units.

A large proportion of the units also achieve cross ventilation, whilst those which do not, have shallow unit depths, thereby easily accessing natural ventilation.

The proposed development will involve efficient waste management, by minimising and recycling in the demolition, construction and operational phases of development. Building 1 is an adaptive re-use of the existing surgery wing building representing a considerable saving in building materials if a new building was constructed.

Materials will be selected with appropriate thermal mass and the development will be insulated and provided with shading devices.

All WCs and garden beds will be irrigated by water collected from the roofs of the development (captured and collected in rainwater tanks).

Car dependency will be reduced by the provision of facilities for cyclists in the basement levels and the location of the development being in close proximity to cycling routes and different modes of public transport.

The BASIX Certificate (refer to Appendix P: BASIX Certificate) will ensure that construction and ongoing operation phases of the development incorporate ESD principles.

9.11 Contributions

In May 2007, the Minister for Redfern-Waterloo adopted the Redfern-Waterloo Authority Contributions Plan for the levying of development contributions for the provision of public facilities and infrastructure within the Redfern-Waterloo Authority's Operational Area, and therefore includes the subject site.

Under Clause 8 of the Contributions Plan, the Minister may impose, as a condition of consent to the carrying out of development to which the Plan applies, a requirement that the proponent pay a development levy of 2% of the proposed cost of carrying out the development, excluding the costs of development that is an adaptive reuse of a heritage item.

A s94A levy will therefore be calculated, in accordance with s25J of the EP & A regulation 2000, for the proposed development.

Development of the site is also subject to the Redfern Waterloo Authority Affordable Housing Contributions Plan 2006. The contribution rate is applicable to the additional GFA of the new development. In this instance, the rate will apply to additional GFA. The floor area of the existing hospital is 13,191m². The GFA of the proposed development is 13,787.51m². The additional GFA is therefore 596.5m².

9.12 Stormwater Management

Greenarrow has prepared stormwater management plans for the site (refer to Appendix F: Stormwater Plans). There are currently limited stormwater quality or quantity control measures from the site. The stormwater plans identify appropriate stormwater treatment measures to maintain existing stormwater quality and quantity discharging from the site.

9.13 Utilities

A Hydraulic and Fire Services Scheme, dated May 2007, has been prepared by Armstrong Consulting Engineers (contained in Appendix O). The report contains a preliminary assessment of infrastructure and services for the proposed development, including a comprehensive investigation of hydraulic and fire services. A summary of the assessment of key utility infrastructure services to the Project is provided below:

Gas
Natural gas is available to the site. A main gas meter would be installed for the development and remote individual gas meters for each unit, central hot water, space heating and central mechanical plant.

Electricity
A new electrical substation may be necessary and will be investigated at Project Application Stage.

Water
An 80mm incoming domestic water supply, meter and backflow device exists on site at the southern end of the Pitt street frontage. Investigations have been undertaken with Sydney Water to ensure existing supply is adequate.

Sewer
The existing sewer drainage system and house service connection would be required to be replaced as it is unsuitable for servicing the proposed new residential development. A new house drainage system and boundary trap will be installed to drain the sewer to the Sydney Water sewer main.

This preliminary investigation identifies no significant constraints to the site that would hinder the delivery of the Project and subsequent use of the site for residential and open space purposes.

Consultation has been undertaken with Sydney Water, who have provided on-site detention requirements in relation to the proposed development (refer to Appendix S: Services Letter).

9.14 Consultation

The developer has met with Redfern Waterloo Authority whilst preparing the subject proposal. The proposal will be subject to a consultation period as part of the planning process.

9.15 Social and Economic Benefits

The proposal will deliver a number of important social and economic benefits, including:

- Heritage Conservation: The historical, social and aesthetic importance of the former Rachel Forester Hospital will be respected and incorporated in the new residential development through adaptive reuse of the buildings and preservation of proposed open space.

- Housing: The new development will provide increased housing and offer housing choice within proximity to public transport, community faculties, employment, commercial and retail centres.

- Public Open Space: The provision of public open space will be a direct benefit to the community.

- Jobs: New jobs will be created during the construction phase of the development.

- The proposed development will generate use on a currently disused parcel of government owned land, which will have positive social and economic impacts to the community as outlined above.

9.16 Public interest

The proposed development of the former Rachel Forster Hospital site will provide significant benefits to the community, including

- Provision of housing choice.
- Employment opportunities through the construction phase of the development.
- Provision of public space.

The development also incorporates the adaptive reuse of an existing heritage building form and urban design to ensure that the development will not have any adverse impacts upon the amenity currently enjoyed by the local community.

10 Summary and Conclusion

This report has provided the NSW Department of Planning with an environmental assessment for a proposed development scheme at the former Rachel Forster Hospital site at 134-144 Pitt Street, Redfern.

This report demonstrates that the proposal is generally consistent with the concept plan that was approved while it is considered that proposed design changes, which have been incorporated, result in improved internal and external amenity outcomes.

The modifications, including slight variations to the siting and height of the buildings are considered to provide for increased solar access to the units whilst also providing for improved natural ventilation and privacy between the proposed units. The proposed scheme also results in an increase of units and car spaces for the development.

The report and accompanying architectural plans demonstrate that the proposed development scheme better conforms with the design principles contained within the Residential Flat Design Code, as compared to the approved concept plan.

Importantly, none of the changes are considered to be detriment to the surrounding development in terms of noise, privacy or overshadowing.

Given the retention of existing heritage elements, the proposed distance separations and solar access achieved for the proposed units is considered to be appropriate. It is inevitable for there to be overshadowing impacts to the buildings on site if the heritage buildings are to be retained as part of a proposed development scheme for the site.

The proposed development scheme will generate use on a currently disused parcel of government owned land and will provide a number of positive social and economic impacts to the community, including:

- Heritage Conservation: The historical, social and aesthetic importance of the former Rachel Forester Hospital will be respected and incorporated in the new residential development through adaptive reuse of the buildings and preservation of proposed open space.

- Housing: The new development will provide increased housing and offer housing choice within proximity to public transport, community faculties, employment, commercial and retail centres.

- Public Open Space: The provision of public open space will be a direct benefit to the community.

- Jobs: New jobs will be created during the construction phase of the development.

Moreover, proposed development scheme incorporates the adaptive reuse of an existing heritage building form and urban design to ensure that the development will not have any adverse impacts upon the amenity currently enjoyed by the local community.

Therefore, it is considered that the proposal represents a viable and reasonable degree of development on the site and is worthy of approval.

If you require any additional information or clarification of any of the above matters, please contact the undersigned at anthony@abcplan.com.au

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Appendix A: Architectural Plans

Appendix B: Landscape Plan

Appendix C: Shadow Diagrams

Appendix D: Photo Montages

Appendix E: Solar Access Diagrams

Appendix F: Stormwater Plans

Appendix G: Traffic Assessment

Appendix H: Heritage Impact Assessment

Appendix I: Design Report

Appendix J: Cost Analysis

Appendix K: Supplementary Report on Geotechnical Investigation

Appendix L: Indicative BCA Compliance Report

Appendix M: Environmental Noise Assessment

Appendix N: Structural Assessment

Appendix O: Hydraulic and Fire Services Scheme

Appendix P: BASIX Certificate

Appendix Q: Arboricultural Assessment

Appendix R: Archaeological Report

Appendix S: Services Letter