Statement of Environmental Effects

Proposed Development at 185 Fox Valley Road, Wahroonga

Seventh-Day Adventist Church – South Pacific Division

June 2014

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Quality Assurance

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Executive Summary

This Statement of Environmental Effects supports the development of four (4) residential flat buildings (RFBs) at 185 Fox Valley Road, Wahroonga. The site, formally known as the Wahroonga Estate, is subject to Major Project approval MP10_0070 and Concept Plan approval MP07/0164. The proposed development is permitted according to the Concept Plan approval.

Whilst the RFBs would be privately owned, two (2) would cater for key workers associated with the existing hospital in the estate. The remaining two (2) would offer housing opportunities for students attending the medical related education facilities also in the estate.

The proposal was originally submitted to Ku-ring-gai Council as a Development Application in November 2012. However, during the course of the DA assessment, it was identified that modifications were required to the Concept Approval in order to finalise the DA assessment. Specifically, it was identified that the building envelopes and footprints proposed in the DA differed from those identified in the Concept Approval by a margin that warranted a modification to the Concept Approval. That modification (Modification Number 4) was approved by the NSW Department of Planning and Environment on April 8, 2014. The building envelopes in the concept approval now reflect those identified in this DA. Therefore, assessment of the DA can proceed.

Further, additional feedback was received by the applicant from Ku-ring-gai Council and the Sydney West Regional Planning Panel in relation to other DA matters. This resubmission also responds to those matters.

The proposed works seek the:

- Development of two key worker housing buildings containing a mixture of one and two bedroom dwellings for hospital staff (doctors, nurses and other key workers), and associated basement parking;
- Development of two student accommodation buildings providing ancillary housing for students of the Education Centre, and associated basement

parking. In total the student accommodation buildings will provide 126 studio dwellings.

- Removal of existing trees within proposed building footprints; and
- Demolition of existing structures on the site.
- Subdivision of the residential lot from Lot 621 in DP 1128314

The key worker housing component of the development is categorised as Class 2 under the Building Code of Australia. The student housing accommodation is categorised as Class 3 under the BCA.

Issues regarding visual, amenity and privacy concerns to surrounding properties have been given consideration through the design process. The accommodation options have achieved a high level of amenity with negligible impacts to surrounding properties. The proposed development represents a small proportion of the entire Wahroonga Estate redevelopment and the expected density of the development is consistent with the scale and types of development located elsewhere on the site.

Student accommodation and key worker housing will be managed and operated by the Hospital, as the development forms an integral part of Wahroonga Estate.

The development is consistent with respect to indicative development controls in the Concept Approval, as amended. It also responds adequately to site specific environmental constraints and opportunities. The DA is therefore resubmitted for Council's consideration.

Introduction

This Statement of Environmental Effects supports the development of two key worker housing buildings and two student accommodation buildings on the Wahroonga Estate site in the Ku-ring-gai local government area (LGA). The buildings are generally regarded as residential flat buildings.

The report is structured as follows:

Section 1 – Background

Section 2 – Proposed Development

Section 3 – Planning Policy and Legislation

Section 4 – Environmental Assessment

Section 5 – Conclusion

Section 1: Background

1.1 Site Location and Characteristics

The site is located at 185 Fox Valley Road, Wahroonga and forms part of the site known as the Wahroonga Estate. In December 2009 the Wahroonga Estate was declared a State Significant Site. The site is subject to a Concept Plan, which presents the basis by which further development approvals would be issued. The Concept Approval was issued in March 2010 and outlines land uses and floor spaces across five precincts. The original concept approval has been subject to various modifications.

A Project Approval was issued in March 2011 for the staged alternations and additions to the Sydney Adventist Hospital. These works include:

- Expansion and refurbishment of the Clinical Services Building,
- Construction of a new Education Centre,
- Construction of a new multi-deck carpark, and
- Construction of a new Shannon Wing.

The subject site sits outside the scope of the above Project Approval and as such is guided by the Concept Approval.

Location Plan – Source MBMO

The site is bounded by:

- The Sydney Adventist Hospital to the north
- The Education Centre to the west,
- The Comenarra Parkway to the south, and
- A future mixed used development to the east

The site on which the proposed RFBs would be located currently contains the Wahroonga Adventist School. The school is subject to a separate State Significant Development application which proposes to relocate its facilities further north within the Wahroonga Estate.

Wahroonga is a suburb in Ku-ring-gai local government area (LGA), located approximately five kilometres north-west from Hornsby and approximately 23 kilometres from Sydney CBD. The areas surrounding the Wahroonga Estate site predominantly consists of low density residential dwellings.

1.2 Planning Context

In December 2009, Wahroonga Estate was declared a State Significant Site by NSW Planning, known currently as the Department of Planning and Environment (DP&E).

Wahroonga Estate is subject to a Concept Plan (07_0166), which is the key planning instrument that presents the basis by which further development approvals are to be issued. The approved Concept Plan was issued on 31 March 2010 and outlines permissible land uses and floor spaces across five precincts. The Concept Plan is an environmental planning instrument, which identifies that the proposed density and scale of the Wahroonga Estate is within its environmental capacity.

The Concept Plan is arranged into precincts and details existing and proposed development permitted in each precinct by gross floor area for a range of types of uses. The proposed development is located within 'Precinct C: Hospital Central'.

Precinct	***Maximum Gross Floor Area (m^2)***	***Maximum Gross Residential Floor Area (m^2)***
Precinct C: Hospital Central	*Central Hospital precinct - 115,000m2*	*14,500m^2*

The proposed use is permitted under Concept Plan MO07_0166. The core function of the proposed development is to provide housing opportunities. In the first instance, the housing will be provided for key workers associated with the existing hospital facilities within the estate, as well as students attending the Education Centre currently under construction in the estate. Three levels of basement are proposed directly beneath the proposed building footprint, providing a total of 184 car spaces including 24 disabled driver spaces and 32 car share spaces.

The total maximum permissible residential floor space in Precinct C: Hospital Central is 14,500m². The proposal includes a compliant floor area of 12,096m^2 for residential purposes.

1.3 Planning Status

The enclosed development application has been subject to further review since its original lodgement to Council in November 2012. Specifically, the proposed development responds to feedback and submissions from Ku-ring-gai Council, Sydney West Joint Regional Planning Panel and the NSW Planning Assessment Commission. The proposed plan of subdivision is also enclosed.

Further to recent modification of the Concept Plan (MP07_0166 MOD4), which was approved on 8 April 2014 by the Planning Assessment Commission under Section 75W of the Environmental Planning and Assessment Act 1979, the proposed development complies with the approved Concept Plan. Specifically, the building envelopes outlined in this DA reflect those in the Concept Approval.

The following table outlines changes made to the design, presented in the original development application. The purpose of this table is to aid Ku-ring-gai Council in its assessment of the SPD Residential development.

This details relevant requests by Council, JRPP, and the PAC and how the new design responds.

Alterations to Original DA	Reason
▪ Buildings A and B (student accommodation) have been mirrored over the north-south axis with the result that the building entries are now facing the Education Centre, rather than the residential buildings. ▪ As a result of this, the basement ramp is now on the east side of the building footprint as opposed to the west side and minor adjustments to the car park layout.	In response to Council's Urban Designer /Planner
▪ Building A, ground floor: 4 student units have been deleted, replaced by a common room.	In response to Council's Planner
▪ Student apartments, both buildings A and B: The 'pod' windows have been deleted and replaced with conventional full width perpendicular windows with solid sill, and angled sun-shade/privacy screens.	In response to Council's Planner
▪ Landscaping: Adjustments made to reflect the building changes, such as new entry locations of buildings A and B, reshaping of the landscape between buildings A and C, and B and D respectively, car park entry ramp location.	Feedback from Council Landscape representative to place the deep soil planting in the south and improve outlook.
▪ The pedestrian link has been revised so that the larger planter boxes are on the south side rather than the north side of the pedestrian link, in order to reflect the locality's typical tree planting.	Feedback from Council Landscape representative.
▪ Building B: Egress stair relocated so it also exits on the Education Centre side and maintains the purpose of mirroring the building on its axis.	In response to Council's Urban Designer/ Planner
▪ Upper floors Buildings A and B: The mirroring of the buildings has only little effect on the general apartment layouts, but the arrangement has been optimized with regard to co-locating bathrooms and riser efficiency. This means some apartments have been 'flipped' over the centre axis without changing their layout.	In response to Council's Urban Designer/ Planner
▪ Building C: Only minor adjustments, such as wall type coordination, and inclusion of water meter cupboards which have become compulsory since the DA was originally submitted.	To meet new regulations in water metering, which have arisen since November 2012
▪ Apartment 04 has been amended to a 2-bedroom apartment omitting the small balcony on the East elevation (a larger balcony to the north is still in place)	To improve amenity and reflect the new layout.

There are no other changes to the original design of the residential building. The Concept Plan permits the proposed footprint, height, bulk and scale of the development. This SEE demonstrates that the resultant design is compliant with the Concept Plan Instrument and is supported by the following updated reports:

- Accessibility Issued 19 May 2014
- Arborist Report Issued 26th May 2014, Rev E
- Architectural Set Issued 3/6/14 Rev B
- BASIX Report Issued 23/5/14
- JV3 Issued 26/5/14
- BCA Issued 25/05/14, Rev C
- Bushfire issued 21/5/14
- CIV report June 2014
- Civil report and drawings issued 22/5/14
- Crime risk assessment issued 14/5/14
- Fire engineering issued 26/5/14 rev 4
- Landscape issued May 2014 rev C
- Owners consent & political donations save 3/6/14
- Subdivision plans issued 5/5/14 rev B
- Traffic issued May 2014 rev F
- Waste management issued 21/9/12

The following reports initially lodged in November 2012, remain unchanged:

- 7 part test issued 15/10/2012
- Acoustic issued 29/10/2012
- Design issued 26/10/2012, Version 3
- Phase 1 Contamination Report issued October 2012
- Geo technical issued October 2012
- Heritage issued 25/10/2012

Section 2: Proposed Development

2.1 Proposal

The proposal seeks to develop four (4) new residential buildings on the site. Two (RFBs) will provide key worker housing buildings and the remaining two (2) will provide student accommodation in accordance with the Concept Plan and Concept Approval. The proposal seeks to undertake works including:

- Development of two key worker housing buildings containing a mixture of one and two bedroom dwellings for hospital staff (doctors, nurses and other key workers), and associated basement parking;
- Development of two student accommodation buildings providing ancillary housing for students of the Education Centre and associated basement parking. In total the student accommodation buildings will provide 126 studio dwellings.
- Removal of existing trees within proposed building footprints; and
- Demolition of existing structures on the site.
- Subdivision of the residential lot from Lot 621 in DP 1128314

Student accommodation and key worker housing will be managed and operated by the Hospital, as the development forms an integral part of the Wahroonga Estate.

Further detail regarding the proposal is enclosed in the attached architectural drawings.

Section 3: Planning Policy and Legislation

This section of the report provides an overview of relevant planning controls and guidelines.

3.1 Site Specific Requirements

Concept Plan MP07_0166

The approved Concept Plan is the principal planning instrument. The Concept Plan stipulates that it is the prevailing Environmental Planning Instrument should any inconsistencies arise.

A2(2) Development in Accordance with Plans and Documentation

(2) In the event of any inconsistencies between the administrative terms of approval and further assessment requirements of this concept approval and the plans and documentation described in this Schedule, the administrative terms of approval and further assessment requirements of this concept approval prevail

The Instrument of Approval (MP07_0166 MOD 4) made on 8 April 2014, was drafted with direct reference to designs lodged to Council in November 2012.

Flexibility in design is considered as part of the Concept Approval under the following terms of approval:

A8 Building Height

(1) Buildings shall generally be compliant with the Wahroonga Estate Height of Buildings Map, except as follows:

(a) Precinct C: Central Hospital residential building C shall be restricted to a maximum building RL of +180.0m with plant and lift overrun protrusions up to a maximum RL of 182.0m;

(b) Precinct C: Central Hospital residential building D shall be restricted to a maximum building RL of +170.4m with plant and lift overrun protrusions up to a maximum RL of +172.2m:

(c) Precinct V: Central Hospital student accommodation building A shall be restricted to a maximum building RL of +180.1m with plant and lift overrun protrusions up to a maximum of 182.0m:

(d) Precinct C: Central Hospital student accommodation building B shall be restricted to a maximum building RL of +170.1m with plant and lift overrun protrusions up to a maximum RL of +172.2m…

…Notwithstanding A8 (1) above, development consent may be granted for development that exceeds the maximum building height stipulated in A8 (1) if the consent authority has considered and is satisfied with the written request from the applicant that seeks to justify the contravention of the maximum building height…

These development standards were drafted by the Planning Assessment Commission utilising the architectural designs enclosed. The design is therefore consistent with the instrument of approval.

The following revised terms of approval provide further clarity as to the scope of flexibility enabled by the instrument to allow for alternative designs. This enables variations which provide a superior built form and/or urban design outcome, that are consistent with the intent of the indicative design elements, as follows:

B1 Urban Design

(1) Future development applications are to be generally consistent with the following elements which are indicative in the approved Concept Plan:

(a) Building footprints
(b) Asset Protection Zone widths
(c) Internal road location
(d) Detention basin location.

A9 Precinct C: Central Hospital Service Vehicle Access

(1) Provision may be made for a single service vehicle access point from The Comenarra Parkway for use by service vehicles only in conjunction with the management of the future residential and mixed use development in Precinct C: Central Hospital.

The following table provides an assessment of the proposal against the Concept Plans primary development controls:

Development Control	Standard	**Compliance/Justification**
Height	Concept Plan - A8 Building Height, as outlined above. Otherwise: 20.5 metres (north part of site) and 14.5 metres (south part of site)	The proposed height is fully compliant with the approved concept plan. It will have no unreasonable visual or amenity impacts on surrounding properties.
Maximum Gross Floor Area	Central Hospital precinct - 115,000m^2	Under the Concept Approval the Central Hospital precinct makes provision for 301 student accommodation units (14,500m^2) and 105 residential flat building dwellings. The development is proposing to contain: • 126 student accommodation dwellings (6,540.49m^2). • 35 x 1 bedroom key worker housing dwellings and 25 x 2 bedroom key work housing dwellings. This allocation does not exceed the provisions specified in the Concept Approval.
Landscaping	Campus landscaping treatment, as described under the Concept Plan.	As described under the Concept Plan a campus style landscape treatment is proposed by the development, including: • High levels of pedestrian accessibility. • Retention of existing vegetation, along with avenue tree planting. • Strong inter-linked network of paths and cycleways, connecting to the Education Centre and

		future mixed use development.
Parking	Parking rates as specified under the Concept Approval are: • Student accommodation – 1 space per 4 units. • Key worker housing 1 bedroom – 1 space per 2 units. • Key worker housing 2 bedroom – 1 space per unit. • Visitor –1 space per 4 units. • Car share – 1 space per 6 units.	The development provides the following parking allocations: • 63 student car spaces • 43 key worker car spaces • 46 visitor car spaces • 32 carshare car spaces With a total of 184 car spaces. The development has provided the required rates for key worker, visitor and carshare spaces.
Setbacks	Under the Concept Plan an indicative setback of 6 metres to the Comenarra Parkway.	The development adopts a minimum setback from Comenarra Parkway of 6m, and a maximum setback of 6.8m.
Access & Pedestrian and Cycle Movements	In the Concept Plan – To reinforce the living-working community environment it is important to deliver a well designed system to encourage alternative transport and reduce car dependence and a system of pedestrian and cycle linkages has been planned across the Estate	The development is consistent in meeting the objectives of encouraging alternative transport, reducing car dependence and providing a system of pedestrian and cycle links. This is achieved through the: • The provision of carshare scheme spaces (in line with rates outlined in the Concept Plan). • Clear legibility of pedestrian and cycle movements linking the development to the Education Centre and the future mixed use development. • The allocation of accommodation on-site promotes a living-working community reducing car dependency.

APZ Setback	The Bushfire Protection Assessment which accompanied the Concept Plan identified: • An appropriate level of consultation was undertaken with NSW Rural Fire Service. • Bushfire safety measures were to be implemented relating to: access/egress, fire-fighting access and water supplies, construction standards for buildings, management of APZ vegetation and evacuation protocols.	The proposed development site is not affected by bushfire prone land. The wider lot (known as Lot 62, DP1017514) does contain unmanaged vegetation. The proposed student accommodation and key worker housing is located on a lot containing bushfire prone vegetation, and meets bushfire protection measure requirements, complying with Section 79BA of the Environmental Planning and Assessment (EP&A) Act and provide bushfire protection measures. Reference can be made to the relevant bushfire report for verification.

3.2 State Planning Requirements

SEPP 65 – Design Quality of Residential Flat Buildings

SEPP 65 seeks to achieve high quality design and amenity for new RFBs. It relies primarily on ten design principles to achieve this objective. The principles relate to the appearance, amenity, function, context setting and energy usage of proposed RFBs.

Proposed RFBs are required to demonstrate their consistency with the stated principles. The DA is accompanied by a design statement prepared by the architects who have devised the proposed scheme. The statement demonstrates how the proposal satisfies the stated principles.

Infrastructure SEPP

Clause 45 of the Infrastructure SEPP requires the consent authority to seek comments from the relevant electricity supply authority when a DA involves, in general terms, excavation or works in close proximity to an underground electricity power line, an electricity distribution pole or an electricity tower.

The proposal involves work in close proximity to an electricity power line and should therefore be referred to the relevant authority. It is not anticipated that any objections would be received from the authority.

BASIX SEPP

The BASIX SEPP seeks to ensure dwellings are designed such that they minimise the use of natural resources. They typically require the addition of a range of usage minimisation measures in new dwellings. DAs involving new dwellings must be accompanied by a BASIX Certificate demonstrating the minimum usage targets have been met. The DA is accompanied by the relevant certificate.

SEPP 55 – REMEDIATION OF LAND

In relation to DAs involving residential development, SEPP 55 requires the consent authority to be certain their future occupants would not unreasonably affected by contaminated land. This resubmission relies on a contamination assessment submitted with the original DA. The assessment identified that there would be no unreasonable risk to the occupants of the proposed development.

3.2 Other Planning Requirements

Ku-ring-gai Planning Scheme Ordinance

The Ku-ring-gai Planning Scheme Ordinance (PSO) aims to guide future development and conservations of land across the LGA. The zones and land uses defined in the PSO are not consistent with Concept Approval for the estate. As indicated earlier, in the case of an inconsistency between planning controls for the estate, the Concept Approval prevails. In this case, the KPSO is not applicable to the proposal.

Ku-ring-gai Development Control Plan

The main component of the Ku-ring-gai Development Control Plan (DCP), which is applicable to this development, is the Ku-ring-gai Residential Design Manual. The Ku-ring-gai Residential Design Manual does not specifically stipulate development guidelines for ancillary student accommodation and key worker housing.

The criteria outlined in the table below has been addressed at the Concept Plan stage.

Site Planning and Environmental Constraints	The development has regard for tree preservation, bushfire protection and heritage items. Other factors affecting the site planning and environmental constraints of the site are further discussed in the accompanying Appendices.
Design Elements	The development has considered the following aspects through the design stage, in respective to amenity for residents and visitors and surrounding properties: • Streetscape, • Public domain and communal spaces • Floor space ratios • Height of building, roof lines, • Solar access, and • Slope of the site. These are further discussed in the accompanying Appendices.
Managing Construction or Demolition	Site management during the demolition, construction and operational stages of the proposed development have given consideration. This includes waste management, tree protection and noise control measures. These are further discussed in the accompanying Appendices.

Section 4: Environmental Assessment

Original Concept Plan

This section of the report assesses the environmental impact of the development on the site and in the wider locality. It should be noted, that detailed analysis of these components was undertaken as part of the Concept Plan, including:

- **Access, traffic and parking.**
  Under the Final Preferred Report and Concept Plan provision was made for a total of 1,671 car spaces (including 250 on-street parking spaces) to service the non-hospital uses across the Wahroonga Estate.
- **Contamination**
  A Phase 1 Contamination Assessment was prepared by Douglas Partners for the Wahroonga Estate in November 2008. The scope of works included a site walkover, identification of properties, a review of historical aerial photographs, and a search of relevant registers and databases. Overall, it was considered the site had a low potential for soil and groundwater contamination.
- **Bushfire**
  A Bushfire Protection Assessment was prepared during the Concept Plan process and identifies that an appropriate and justified level of consultation was undertaken with NSW Rural Fire Service. Bushfire safety measures addressed issues relating to access/egress, fire-fighting access and water supplies, construction standards for buildings, management of APZ vegetation and evacuation protocols.
- **Flora and fauna**
  A Flora and Fauna Assessment was prepared by Cumberland Ecology in March 2009. The purpose of the assessment was to examine the ecological values and predict the potential impacts of the redevelopment on flora and fauna.
  On the site approximately 5.771 hectares of the 37.077 hectares of native vegetation is proposed to be cleared for development, with a further 16.356 hectares to be managed for asset protection zones (APZ) and 1.36 hectares to be managed for bushfire fuel reduction zones.

- **Ecological sustainable development**

  The Ecological Sustainable Development Review was prepared in response to the Director-General's Requirements issued under the Part 3A process. ESD principles which are incorporated into the Wahroonga Estate and allow for flexibility in site configuration and development controls are discussed.
  - BASIX – NSW Government's regulatory advice to help maximise water and energy savings for new dwellings and some alterations to residential development. Future design should have regard for water consumption, energy efficiency and thermal comfort.
  - Water sensitive urban design (WSUD) – was considered in the 'Wahroonga Estate Flooding and Stormwater Master Plan'. Site stormwater and water cycle management infrastructure control flooding, improved water quality and conserve and reuse water on-site. WSUD recommendations include rainwater tanks, detention basins, wetlands and ponds.
  - Recycling and waste management – reuse has been utilised where viable on the site. Future developments will prepare and implement Waste Management Plans for demolition, excavation and construction works. Measures will be undertaken to achieve effective recycling and waste management processes.
- **Heritage**

  Australian Museum Business Service prepared a Heritage Impact Assessment for the site during the Concept Plan process. Recommendations were made to ensure heritage values on the site are protected. For buildings with potential heritage significance which are to be relocated or removed, archival recording should be undertaken.

Proposed Development

Environmental assessment considerations undertaken for this development are discussed below.

4.1 Traffic, Parking and Access

An assessment of Transport, Traffic and Parking Implications Assessment has been prepared by Transport and Traffic Planning Associates. This assessment originally undertaken in 2012 was updated in May 2014 to assess the potential traffic implications of the proposed development, the appropriateness of proposed

parking provision and the suitability of the proposed access, internal circulation and service access arrangements.

The existing vehicle accesses on Fox Valley Road will be retained being:

- the principal traffic signal controlled intersection
- the secondary access located to the north of The Comenarra Parkway

The Traffic Assessment also analysed previous traffic and parking studies, which have been prepared for the Wahroonga Estate major project assessment. The Concept Approval car parking requirements in relation to the residential components are as follows:

- Student accommodation (0.5 spaces per unit)
- 1 bedroom unit (0.5 spaces per unit)
- 2 bedroom unit (1 space per unit)
- Visitors (1 per 4 units)
- Car share (1 per 6 units)

This development proposes to provide a total of 184 spaces in the basement levels comprising:

- Student accommodation 63 spaces (0.5 spaces per unit)
- Residential accommodation 43 spaces (0.5 spaces per 1 bed unit and 1.0 space per 2 bed)
- Visitors 46 spaces (@ 1 per 4)
- Car share 32 spaces (@ 1 per 6)

Spatial provision is made for a bicycle to be stored within the required storage spaces for each unit, with an additional 33 secure bicycles spaces provided for residents and visitors. Total capacity of 219 cycle spaces.

There will be a total of 184 parking spaces provided in the basement levels with vehicle access through the internal road system connecting to Fox Valley Road at the primary and secondary Hospital access points. A driveway will also be provided on the Fox Valley Road frontage for refuse vehicle access.

Traffic and Parking Assessment of the development scheme which is to be submitted to Council has concluded that:

- *the proposed scheme is compliant with the provisions of the Concept Approval and DG's Assessment;*
- *the proposed parking provision will be suitable/appropriate and in compliance with the Concept Plan approval criteria;*
- *the projected traffic generation is within the bounds of the Halcrow traffic assessment of September 2010 that informed the Concept Approval, therefore, will not have any adverse traffic implications not already catered for in the required road upgrades identified in the Concept Approval;*
- *the proposed access, internal circulation and servicing arrangements will be suitable and appropriate.*

4.2 Ecological – Flora and Fauna

7 Part Test

Cumberland Ecology prepared a 7 Part Test in October 2012 to assess the potential impacts of the development on threatened ecological communities, and flora and fauna.

A site inspection revealed the site is almost entirely cleared of native flora and fauna, having minimal ecological issues. On the site of the SPD Residential development there are no threatened flora or fauna species recorded. The small patch of Sydney Turpentine Ironbark Forest (STIF) is considered degraded and as such does not meet the listing requirements of the Environmental Protection and Biodiversity Conservation Act 1999. Notwithstanding, "no significant impacts on STIF are likely as a result of the proposed DA".

Along the Comenarra Parkway, STIF will be removed as part of the RMS road widening works. This sits outside the control of works relating to this application.

Overall, the development will not result in a direct loss of remnant, canopy tree species nor will it fragment any flora or fauna habitats. As the subject site is not connected to nearby bushland, no impact will occur to Ecologically Endangered Communities (EEC).

Arboricultural Report

An updated Arboricultural Report was prepared by TreeIQ in May 2014 to undertake a Visual Tree Assessment (VTA) and the impact of the development on existing trees on-site. The Assessment was prepared in accordance with Ku-ring-gai Council's *Tree Preservation Order and Guidelines for Arborist Reports* and Australian Standards.

The Arboricultural Assessment determined that four trees located on the site will need to be removed and that ten trees are to be retained. Recommendations also include tree protection measures, reduction pruning standards and advice regarding replacement trees.

4.3 Acoustic

An Acoustic Report was prepared by Cardno for this development application in October 2012, which identified a number of noise sources within the vicinity of the proposed development. Namely, these are the main collector roads of the Comenarra Parkway and Fox Valley Road.

As the proposed development will be used for student accommodation and key worker housing, the assessment found that facade glazing would need to be closed to meet NSW guidelines. The development will be required to have natural ventilation, resulting in the buildings being clad in treated ventilation boxes necessary to mitigate acoustic impacts.

As the site is located in close proximity to a school, hospital and residential dwellings, preliminary construction noise and vibration impacts have been determined. It was concluded noise and vibration controls are required and a noise management plan be developed when a contractor is engaged.

The Acoustic Report concludes that if appropriate control measures, such as building envelope design and orientation of plant and equipment are satisfactory, the project acoustic criteria and requirements can be met.

4.4 Bushfire

A Bushfire Protection Assessment was prepared by Australian Bushfire Protection Planners and recently updated in May 2014. The proposed development site is not

affected by bushfire prone land, although, the wider lot (known as Lot 62, DP1017514) does contain unmanaged vegetation.

As the proposed development is located on a lot containing bushfire prone vegetation, it is required to comply with Section 79BA of the Environmental Planning and Assessment (EP&A) Act to provide bushfire protection measures.

The proposed building is separated from the bushfire prone vegetation to the west, east and south by more than 100 metres. This separation is provided by the managed landscaped gardens within the development site and the adjoining development.

This separation width places the proposed building beyond the maximum Asset Protection Zone width [60m] for residential development, as required by Table A2.4 of *Planning for Bushfire Protection 2006.*

The proposed development, being located more than 100 metres from bushfire prone vegetation, is not required to satisfy Part 2.3.4 of the Building Code of Australia and the bushfire construction specifications of Australian Standard A.S. 3959 – 2009 – *'Construction of Buildings in Bushfire Prone Areas'.*

Measures to protect the site include, landscape management, water supplies for fire-fighting operations and evacuation planning requirements.

4.5 Contamination

A Preliminary Stage 1 Environmental Site Assessment was prepared by Environmental Investigation Services (EIS) in October 2012 to determine the potential for soil and groundwater contamination on the site.

Soil samples revealed that the potential for significant soil contamination is relatively low. As such, the proposed development is deemed suitable on the site.

As a result of this assessment, it is recommended that should any materials be exposed during excavation, EIS should be contacted. It is also recommended further sampling be undertaken near the south-eastern corner of the development site (referred to as BH6) to better assess what appears to be hydrocarbon impact

natural soil. This will reduce the volume of natural soil that is disposed of as 'general solid waste'.

4.6 Crime Risk Assessment

The Crime Risk Assessment addresses the principles of Crime Prevention Through Environmental Design (CPTED). CPTED principles are discussed below.

- Surveillance – is achieved on the site through the pedestrian connection linking the SPD Residential development to the Education Centre and future mixed use development.
  Passive surveillance options will exist throughout the pathway by use of low height walls, direct entryways into buildings, habitable spaces overlooking the pathway and entries, and the use of appropriate lighting.
- Access control – pedestrian access will be via single access points to buildings, with security doors and swipe card access. Vehicle access will be via an internal driveway to basement parking, also utilising swipe card access.
- Territorial reinforcement – spatial legibility is reinforced through landscaping treatments, low walls and defined entries and exits.
- Space/activity management – the development will be managed in line with Wahroonga Adventist Hospital standards. This will deter vandalism, concealment and loitering opportunities.

4.7 Heritage

A Heritage Impact Statement was prepared by Graham Brooks and Associates in October 2012 for the SPD Residential development. The purpose of this assessment was to demonstrate the proposed development is in accordance with (now repealed) *Clause 24(4) of the SEPP (Major Development) 2005.* This is now clause *26R (4) in Part IIIC of the Ku-ring-gai Planning Scheme Ordinance*:

> ***Effect on heritage significance***
> *The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item concerned.*

The Administrative Headquarters Building, at 146-148 Fox Valley Road, is a heritage listed item on the Heritage Map Part in the *Ku-ring-gai Planning Scheme*

Ordinance. The proposed development is separated from the heritage item by Fox Valley Road, vegetation and buildings, and as such will have no effect on the heritage significance of the Administrative Headquarters Building. Elsewhere an item of Aboriginal Heritage is separate and distant from the proposed residential development and therefore will have no effect on its significance.

4.8 Access

An Accessibility Report was prepared by Access Associates Sydney to review the requirements of the proposed development regarding access and egress for people with disabilities. This was updated in May 2014.

The report assesses the development is in accordance with the Building Code of Australia (BCA) 2012, Ku-ring-gai Council standards and the objectives of the Disability Discrimination Act (DDA) 1992 – Section 23.

To meet these objectives, equitable access throughout the site is proposed to be provided via a continuous accessible path of travel which links facilities including:

- public transport in the adjacent locality (Fox Valley Road bus stops)
- adjacent buildings and pathways to campus facilities
- principal entries
- common areas/student facilities including: reception, common room, laundry and open landscaped spaces
- equitably provided accessible car parking spaces
- equitably provided accessible administrative staff facilities
- equitably provided accessible student accommodation facilities
- equitably provided adaptable residential housing

Access Associates Sydney reviewed the proposal under the principles of equitable, dignified, independent access for people with mobility, vision or hearing disabilities and concluded that the access provisions for people with physical and sensory disabilities comply with the performance requirements of the BCA, Australian Standards and Ku-ring-gai Council standards.

The proposed drawings and operation management strategies met the objectives of the DDA and achieve equitable use of all appropriate areas of the development.

4.9 Waste

The attached updated Waste Management Plan outlines details of the types of waste and disposal during the demolition, construction and operational stages of the development.

4.10 Ecological Sustainable Development

An Ecological Sustainable Development Strategy was prepared by WSP. The report, updated in May 2014, provides an overview to the three fundamental environmentally sustainable development (ESD) factors that are governing the SPD Residential development.

1. The Church's goal to achieve best practice in design and construction.
2. Legislative regulations under as the NCC Section J.
3. The Church's goal to design all its developments in line with the principles of a 4 star Green Star Multi Unit Residential Design v1 rating.

Section J and BASIX

Energy efficiency, for Class 1 and 2 accommodation, is assessed using the BASIX tool. This requires "*inputs for energy and water, as well as thermal comfort performance which is determined using NatHERS modelling*".

Class 3 accommodation (student accommodation) is assessed for compliance under Section J.

Best Practice and Green Star

To meet best practice the Sydney Adventist Church has demonstrated a development which has improved amenity, a long functional lifespan, allows for flexibility occupant types and is constructed from appropriately selected materials. The Church aims to develop the buildings in accordance with the principles of a 4 Star Green Star rating, using the Multi-Unit Residential Tool.

Section 5: Conclusion

This Statement of Environmental Effects (SEE) confirms there will be no significant impacts caused by the proposed development at 185 Fox Valley Road, Wahroonga. The development proposal addresses relevant planning provisions and meets the intended objectives of the Concept Plan to provide new housing opportunities on this site in Precinct C: Hospital Central. The development will provide housing opportunities for key medical related workers at the site, as well as students attending the various medical education facilities. The proposal therefore supports the core health related functions of the Sydney Adventist Hospital.

The proposed development ensures amenity, accessibility in the wider context and long term sustainability of Wahroonga Estate and its built and natural surrounds. The design and layout considers the private amenity of residents in the surrounding area as well as the ongoing commercial and medical operations within the estate. Good pedestrian linkages both within the proposed development, as well as to the broader estate are ensured.

Minor impacts will be mitigated through responsive design and engineering solutions to provide an attractive, functional and safe environment for visitors, residents and attendees of the adjoining medical or commercial related developments. These measures are assessed and explained in the attached technical drawings and reports.

This SEE demonstrates that the development presents no unreasonable environmental, social or economic impacts to the public or surrounding properties. The scale and design of the development is consistent with the estate's Concept Plan and supports the functions of the Hospital and Wahroonga Estate within the context of the wider local community. This development application should be assessed on its own merits taking into consideration the long term role that Wahroonga Estate has in providing many benefits to the wider economic, social and environmental conditions in the area. In conclusion, the carrying out of these works is considered an optimum use of the site, deserving of Ku-ring-gai Council's support and development approval.

List of Appendices: Drawings and Reports

1. Accessibility Report Issued 19 May 2014
2. Acoustic Report
3. Arborist Report Issued 26th May 2014, Rev E
4. Architectural Drawings Issued 3/6/14 Rev B
5. BASIX Issued 23/5/14
6. JV3 Issued 26/5/14
7. BCA Issued 25/05/14, Rev C
8. Bushfire Protection Report issued 21/5/14
9. Contamination- Preliminary Stage 1 Environmental Site Assessment
10. Civil report and drawings issued 22/5/14
11. Crime risk assessment issued 14/5/14
12. Design Verification Report
13. Fire engineering issued 26/5/14 rev 4
14. Heritage Impact Statement
15. Instrument of Approval MP07_0166 MOD 4
16. Landscape issued May 2014 rev C
17. 7 Part Test
18. Subdivision plans issued 5/5/14 rev B
19. Transport, Traffic and Parking Report issued May 2014 Rev F
20. Waste Management Plan issued 21/9/12

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