PROPOSED HOSPITAL, NIELD AVENUE, GREENWICH PART 3A MAJOR PROJECT

ENVIRONMENTAL ASSESSMENT REPORT

VOLUME 1: Includes Appendices 1-5

BBC CONSULTING PLANNERS

murlan

Job No 07177
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STATEMENT OF VALIDITY

Submission of Environmental Assessment
Prepared under Part 3A of the *Environmental Planning and Assessment Act, 1979*

Environmental Assessment prepared by

Name	Robert Chambers
Qualifications	Dip TP
Address	BBC Consulting Planners Level 2, 55 Mountain Street Broadway NSW 2007
In respect of	Proposed hospital, Nield Avenue, Greenwich

Applicant and Land Details

Applicant name	Murlan Consulting Pty Ltd
Applicant address:	Suite 110/26 Pirrama Road, Jones Bay Wharf, Pyrmont NSW 2009
Land to be developed	Land known as No's 1-8 Nield Avenue, Greenwich and part of the road reserve of Nield Avenue (such part to be closed)
Lot and DP	Lot 1 in DP 26707, Lot 2 in DP 26707, Lot 3 in DP 26707, Lot 41 in DP 555753, Lot 42 in DP 555753, Lot 5 in DP 26707, Lot 6 in DP 26707, Lot 7 in DP 26707, Lot 1 in DP 535088, and Lot 18 in DP 397302
Environmental Assessment	An environmental assessment is attached
Statement of Validity	I certify that I have prepared the contents of the environmental assessment in accordance with the Director-General's requirements (dated 14 February 2008 and 23 April 2008) and that to the best of my knowledge, the information contained in the environmental assessment is neither false nor misleading.
Signature	
Date	6 November 2008

EXECUTIVE SUMMARY

Project Overview

This Environmental Assessment relates to the erection of a proposed hospital on land in Nield Avenue, Greenwich presently occupied by 10 dwellings and comprising the western part of the Nield Avenue road reserve which is to be closed and sold to the Proponent. The road closure process is underway.

The proposed hospital will provide much-needed health care services to the lower North Shore community and will complement the Royal North Shore Public Hospital, North Shore private and the Mater Hospital. It will alleviate demand for services at those hospitals. It is anticipated that the provision of integrated rehabilitation, medical and high care health services in the new hospital will be much sought after as the future demand for health care services, particularly in an ageing community, increases over coming decades.

It has been acknowledged by the NSW State Government, the Federal Government and leading demographers that due to the extended lifespan of the Australian population, demand for quality aged-care facilities will increase dramatically after 2010, as the group directly unaffected by World War 2 reaches the age of 80. This will place added pressure on the public health system, with associated demand for increased government funding.

Expectation of quality facilities and extra service for the frail aged will be very high in coming decades, not only from patients themselves and their families, but also to attract medical staff and carers from other employment sectors. This is occurring in regulatory environments where compliance requirements on existing hospital and related facilities for the aged are increasing annually, with those facilities which are either sub-standard or uneconomic facing upgrade or closure.

It is intended that the proposed hospital in Nield Avenue will set a new benchmark for high-quality, health care services, meeting an important and significant demand for these services on the lower North Shore. That these services will be provided within a 1km radius of the Specialised Centre of St Leonards, within which are existing hospital and other specialist activities, underlines the appropriateness of the project and the suitability of the selected site for this purpose.

The project involves the carrying out of the following works:-

- preparatory works to facilitate the implementation of the project, such as the erection of safety fencing and the like;
- demolition of all structures on the site;
- implementation of construction management safeguards such as erosion and sedimentation control devices;
- removal of the sealed surface, kerbs, drains and footpaths and landscaped island within that part of Nield Avenue which is to be closed including the stairs and pathway to Morven Gardens;

- installation/construction of a temporary turning facility within the Nield Avenue road reserve to facilitate construction (and other) vehicle access and turn around during the construction period;
- truncation/termination/relocation of utility services as required (with prior approval of the relevant service authorities);
- removal of selected trees and protection of those trees to be retained;
- excavation and earthworks to achieve the required building platform;
- erection of the proposed hospital;
- landscaping of the site; and
- associated works, including restorative roadworks in the remnant section of Nield Avenue.

The proposed hospital will comprise 147 patient care suites over mainly 6 levels and a wide range of related facilities, including nurse stations, an admissions clinic, triage, specialist consulting rooms, offices, staff training, central kitchen, laundry room, sitting rooms, dining rooms, and 'rehabilitation centre' with hydrotherapy pool, and chapel. It will operate 24 hours each day, 7 days per week.

Both vehicular access and pedestrian access will be from Nield Avenue. A pedestrian link will, however, be created to Morven Gardens to provide ready access to the new hospital from the adjacent self-care apartments in Waterbrook at Greenwich.

The capital investment value of the project is $56 million.

The proposed hospital will provide a range of professional health care services, particularly for the aged. The availability of these services at the proposed hospital in Nield Avenue may be able to reduce the length of stay of older patients in Royal North Shore Hospital by allowing them to transfer to the Nield Avenue facility. This would help the Royal North Shore Hospital reduce waiting times and thus provide an improved service to the public.

Proposed services include:

1. **Rehabilitation Centre and wards**

   A rehabilitation centre is proposed on the lower floor and will include a hydrotherapy pool, gymnasium, multiple use rooms to deal with Physiotherapy, Speech Therapy, Occupational Therapy, Diversional Therapy and other rehabilitation and post operative medical services.

   39 beds are proposed to be dedicated to rehabilitation patients. These wards will include patients being treated for orthopaedic rehabilitation, leg fractures, hip/knee replacements, arthritic and spinal conditions, cardiac rehabilitation, neurological rehabilitation such as stroke, spinal, post-surgical, Parkinson's disease, Multiple Sclerosis, and Oncology patient rehabilitation.

2. **Medical Services wards**

   A range of medical and health services are proposed for the remainder of the hospital. The medical services described under this heading will be specific to approximately 39 beds.

   The medical services will include:

   (a) Post-operative / Post-acute services. Patients will be admitted to receive medical services in the recuperation period following their acute session. This would include post-surgery treatment including pain management, wound care management, medication management, nurse administered clinical procedures (eg care of peritoneal dialysis catheter site), and tracheotomy care. These services will support the acute medical and surgical services of nearby acute and surgical hospitals.

   (b) Chronic pain management and treatment.

   (c) Palliative care.

3. **Psycho-Geriatric and dementia wards**

   Psychiatric services are to be provided to the lower level wards of the hospital, in particular psycho-geriatric assessment and behaviour planning, management and treatment and also dementia care services for the aged. There are 24 beds in total to this level. All patients will be admitted by qualified psychiatric medical practitioners.

4. **High care for the aged and disabled wards**

   It is proposed that the remainder of the facility be dedicated to high-level health care services to the aged and the disabled of all ages. All of these patients will be dependent on the provision of nurse care, as directed by medical practitioners. All patients will require professional health care services (eg. care management, rehabilitation services, pain management, medication management, psychiatry and behaviour management, colostomy care and palliative care).

Implementation of the project involves the closure of the lower part of Nield Avenue and the integration into the site of the pathway leading through to Morven Gardens. Lane Cove Council has agreed to close this part of Nield Avenue and to sell the land comprised therein

(including the pathway) to the Proponent. The resultant site to which this application relates has an area of 7,570m^2.

Permissibility

Hospitals are permissible on the site pursuant to the existing relevant provisions of Lane Cove LEP 1987, under which the site is zoned Residential 2(b1) and of the Draft Lane Cove LEP 2007, under which the site is zoned R4 High Density Residential.

There are no development controls specific to either the subject land or hospitals in Lane Cove LEP 1987. Proposed development controls applicable to land in the proposed R4 High Density Residential zone comprise a height limit of 12 metres and a floor space ratio limit of 1.2:1. The Proponent prepared a detailed submission in relation to both of these controls when the Draft Lane Cove LEP 2007 was exhibited (see **Appendix 24**). At its meeting held on 4 August 2008, Lane Cove Council resolved to change these proposed controls to 15 metres (height) and 1.5:1 (FSR).

Planning Process

Section 75B of the *Environmental Planning and Assessment Act, 1979* ("the EP&A Act") provides that Part 3A of the EP&A Act applies to the carrying out of development that is declared to be a project to which this Part applies.

The Director-General, as a delegate of the Minister, has formed the opinion that the proposed development constitutes a major project, to which Part 3A applies.

The project application was lodged on 5 December 2007. The Director-General of the Department of Planning subsequently issued the Environmental Assessment Requirements (DGEARs) for the project on 14 February 2008, a copy of which is attached at **Appendix 1a**.

On 23 April 2008, the DGEARs were reviewed. A copy of the reviewed and modified DGEARs is provided in **Appendix 1b**. This Environmental Assessment report addresses the issues raised in the modified DGEARs.

Environmental Assessment Report

An assessment of the impacts of the proposed development indicates that subject to the implementation of appropriate mitigative measures and in particular, those identified in the Draft Statement of Commitments forming part of this Environmental Assessment, the project will not result in any significant adverse long-term environmental outcomes but will deliver a high-quality, high-care hospital facility in a location where there is an established and recognised need for the services to be delivered in the proposed hospital.

Information is included within this Environmental Assessment report confirming that the project is for a hospital as defined in the Major Projects SEPP. The Proponent has sought the views of NSW Health on this issue (see **Appendices 12a and 12b**). NSW Health has confirmed that 79 beds would require a private hospital licence. Whilst it is therefore expected that not all of the 147 beds will be required to be licensed as private hospital beds by NSW Health, the definition of 'hospital' under the Major Projects SEPP does not require that all beds be licensed, only that the purpose of the development be to provide professional health care services to people admitted as in-patients (whether or not out-patients are also

cared for or treated). The information provided in the Environmental Assessment demonstrates that this primary purpose is satisfied for the development in its entirety, and the proposal has a capital investment value of well in excess of $15 million.

Considerable effort has been put into the demonstration of the shadow impacts arising from the proposed hospital. This was previously raised as a matter of particular concern to the Department having regard to the localised topography and the relative position and configuration of adjacent residential development to the south-west of the subject site. The terrain, surrounding buildings and proposed hospital have been three-dimensionally modelled and the virtual model then photographed from two camera angles at hourly intervals throughout the mid-winter day to illustrate, how shadow from the proposal will fall onto surrounding properties. The illustrated impacts are considered to be reasonable.

The resultant hospital design has been heavily influenced by the shadow analysis. The modelling/stepping of the building form which characterises the western "wings" is both a response to the need to ensure that the shadow impacts are minimised and that the bulk and scale of the hospital appropriately respond to the site conditions and its interface/relationship with adjoining properties.

The detailed design of the hospital also reflects that careful consideration has been given to the need to protect neighbour privacy and in this regard attention is drawn to the generally substantial setbacks and proposed landscape screening around the periphery of the site and in-between the two western "wings".

There is no evidence of contamination on the site (see **Appendix 15**).

A flora and fauna investigation of the site (see **Appendix 16**) carried out in accordance with relevant draft Guidelines for Threatened Species Assessment has identified three threatened species, populations and communities for particular consideration: Eastern Bent-wing Bat *(Miniopterus schreibersii)*, Grey-headed Flying-fox *(Pteropus poliocephalus)* and the Sydney Turpentine Ironbark Forest Community. The flora and fauna assessment concludes that the proposed redevelopment of the site will not have a significant affect on these or other threatened species, populations and ecological communities and will continue to provide some contribution to the local ecology provided certain compensatory measures are implemented. The Proponent will implement these measures.

There is no evidence of any aboriginal archaeological relics on the site (see **Appendix 17**).

A detailed traffic report (see **Appendix 18**) concludes that the proposed hospital will not present any unsatisfactory traffic capacity, safety or environmental related implications, and will incorporate a suitable and appropriate parking provision for the nature of the development proposed.

An acoustic report demonstrates that appropriate safeguards and amelioration can be put in place to ensure that noise emissions do not disturb the amenity of the area (see **Appendix 19**).

Measures are to be adopted in the building design and operation to minimise energy usage and reduce greenhouse gas emissions (see **Appendix 20**).

A detailed BCA assessment (see **Appendix 21**) confirms that the proposed building can comply with the BCA provisions applying to a Class 9a building subject to some further design development or otherwise via an engineered solution.

A Fire Safety Strategy (see **Appendix 22**) documents the departures from the Deemed-to-Satisfy provisions of the BCA that are proposed to be satisfied by way of an Alternative Solution and to identify the critical fire safety features that are considered to be required in order to achieve compliance with the relevant performance requirements.

In order to ensure that the project is the subject of an adequate level of consultation, a Communication Plan has been prepared (see **Appendix 23**). It will be implemented during the life of the project, and will complement the Department's public notification of the proposed hospital.

The hospital will comply with all relevant accessibility requirements (see **Appendix 25**).

In order to ensure that the amenity of the locality is adequately protected during the demolition, excavation and construction phase, a detailed Construction Management Plan has been prepared (see **Appendix 26**). It identifies measures to mitigate potential amenity impacts.

No planning agreement has been entered into with Lane Cove Council. No Section 94 contributions are payable for the proposed hospital (see **Appendix 27**).

Finally, the proposed hospital is the subject of a detailed Waste Management Plan prepared to ensure that when the hospital is operating, waste is appropriately stored, recycled and removed from the site (see **Appendix 30**).

The various technical and other reports submitted with this Environmental Assessment, where relevant, contain measures to mitigate impacts. These have been consolidated into the Proponent's Statement of Commitments contained in Section 4.4. Implementation of the measures identified in Section 4.4 will ensure that the environmental impacts of the proposal are minimised.

1. INTRODUCTION

1.1 Purpose of the Report

This Environmental Assessment report ("EA") has been prepared on behalf of Murlan Consulting Pty Ltd to accompany an application to the Director-General under Section 75E of the *Environmental Planning and Assessment Act 1979* ("EP&A Act") for approval to carry out a project as defined in Part 3A of the Act ("a major project").

The major project to which this Environmental Assessment relates is the erection and use of a proposed hospital on land in Nield Avenue, Greenwich.

The Minister for Planning has expressed an opinion through his delegate, the Director-General of the Department of Planning, that the proposed development constitutes a major project. In doing so, the Director-General satisfied himself that the development proposal is of state or regional environmental planning significance and that Part 3A of the EP&A Act applies.

The Director-General of the Department of Planning has issued Environmental Assessment Requirements for the project ("the DGEARs") originally on 14 February 2008 (see **Appendix 1a**) and subsequently on 23 April 2008 in modified form. A copy of the modified DGEARs is attached as **Appendix 1b**. This Environmental Assessment report addresses the requirements in the modified DGEARs.

A draft Statement of Commitments for the project has been prepared and is contained in Section 4.4.2 of this EA.

1.2 Summary of Project

The project application seeks the Minister's approval for the redevelopment of land located at No's 1-8 Nield Avenue, Greenwich ("the site") for the purposes of a hospital. The proposal involves demolition of all of the existing structures on the site (which includes part of the public road and pathway leading to Morven Gardens owned by Lane Cove Council) and the construction of a 'U' shaped hospital building comprising 147 patient care suites over predominantly 6 levels (but in small part, 7) with 89 parking spaces, a loading bay and an ambulance bay.

Services to be provided include:-

- physiotherapy;
- speech therapy;
- occupational therapy;
- diversional therapy;

- other rehabilitation (eg. orthopaedic, leg fractures, hip/knee replacements, arthritic and spinal conditions, cardiac rehabilitation, and neurological rehabilitation);
- post-operative care;
- post-acute services;
- chronic pain management and treatment;
- palliative care;
- psychiatric care;
- psycho-geriatric assessment and behaviour planning and management;
- dementia care; and
- high aged and disabled care (eg. wound care management, rehabilitation services, pain management, medication management, psychiatry, behaviour management, colostomy care, and palliative care).

The physical form of the hospital building has been configured to limit potential adverse environmental impacts on neighbouring properties. In particular, the new building has been sited closer to the northern site boundary than the southern boundary in order to achieve greater setbacks to the residential complex to the south on No's 17-15 Bellevue Avenue. Furthermore, the northern and southern "wings" of the hospital which project onto the western part of the site are relatively narrow, with the main body of the new structure sited the maximum possible distance from the western boundary of the site.

The two "wings" are stepped towards the western boundary in order to limit the extent of overshadowing of the neighbouring dwellings, as well as to reduce the perceived bulk of the new hospital when seen from neighbouring residential properties to the west. Both wings are also well setback from the western boundary: the minimum setback of the northern wing is 11.88 metres, whilst the southern wing has a minimum setback of 15.38 metres.

Comprehensive landscaping is proposed around the site and between the two "wings".

1.3 Development for which Approval is Sought

Approval is sought for the following works:-

- Demolition of all existing buildings and structures on the site;
- Closure of the western part of Nield Avenue and the existing pathway leading through to Morven Gardens and the removal of their respective pavements and steps;
- Redirection/termination of in- and above-ground services;
- Removal of selected trees and the retention/protection of others;

- Implementation of construction management safeguards such as erosion and sedimentation control devices;
- Bulk earthworks and excavation;
- Stockpiling of clean fill for re-use on site as appropriate;
- Construction of the new hospital building as detailed on the architectural plans in **Appendix 8** and as described in Section 3;
- Integration of relevant services;
- Tie in of the site access to the remnant part of Nield Avenue with kerb, gutter and hammerhead turning facility;
- Landscaping of the site as detailed on the plans in **Appendix 9**; and
- Use and operation of the hospital and its ancillary activities 24 hours per day, 7 days per week.

1.4 Capital Investment Value

The capital investment value of the project, as defined in the Major Projects SEPP is $56 million.

1.5 Approvals Framework

State Environmental Planning Policy (Major Projects) 2005 was gazetted in May 2005 and aims to identify development of economic, social or environmental significance to the State, or regions of the State, so as to provide a consistent and comprehensive assessment and decision-making process for that development. The Minister for Planning is the consent authority for development of the type, value, or in a location, generally as identified in the SEPP, and Part 3A of the Act applies to the development, referred to as "projects" or "major projects".

Schedule 1 of the SEPP is entitled "Part 3A Projects – Classes of Development". "Hospitals" are included in Schedule 1 as development of a kind that is declared to be a project to which Part 3A of the Act applies. Category 18, Group 7 in Schedule 1 states as follows:-

> *"18 Hospitals*
>
> *(1) Development that has a capital investment value of more than $15 million for the purpose of providing professional health care services to people admitted as in-patients (whether or not out-patients are also cared for or treated there), including ancillary facilities for:*
>
> *(a) day surgery, day procedures or health consulting rooms, or*

(b) accommodation for nurses or other health care workers, or

(c) accommodation for persons receiving health care or for their visitors, or

(d) shops or refreshment rooms, or

(e) transport of patients, including helipads and ambulance facilities, or

(f) educational purposes, or

(g) research purposes, whether or not they are used only by hospital staff or health care workers and whether or not any such use is a commercial use, or

(h) any other health-related use.

(2) For the purposes of this clause, professional health care services include preventative or convalescent care, diagnosis, medical or surgical treatment, psychiatric care or care for people with disabilities, care or counselling services provided by health care professionals."

The proposed hospital is consistent with this definition and hence, the proposal is for a Part 3A project as it has a capital investment value in excess of $15 million.

(An in-patient is defined in the Macquarie Dictionary as "a patient who is lodged and fed as well as treated in hospital". The term in-patient, where used in this Environmental Assessment report, has this meaning.)

1.6 Structure of Environmental Assessment Report

The Environmental Assessment Report is provided in three volumes:-

Volume 1 contains the main text of the report within which each of the revised DGEARs is addressed. It also includes (as appendices) copies of the original and modified DGEARs (**Appendices 1a** and **1b** respectively), along with the reports which describe design-related aspects of the proposal, being the architect's design statement, an urban design report prepared by Professor Peter Webber, the landscape report (**Appendix 2** to **4** respectively) and hydraulic services report and drainage concept plan (**Appendices 5a** and **5b** respectively).

Volume 2 contains all of the plans and related diagrams and perspectives in A3 format: survey plan (**Appendix 6a**), road closure plan (**Appendix 6b**), aboricultural assessment report and plans (**Appendix 7**), architectural plans, visual impact study and shadow diagrams (**Appendix 8**), landscape plans (**Appendix 9**), civil services plans (**Appendix 10**) and perspectives (**Appendix 11**).

Volume 3 contains advices, technical assessment analyses/reports, correspondence and related information. These comprise:-

- Proponent's letter to NSW Health dated 12 September 2008 (**Appendix 12a**);
- NSW Health's letter to Proponent dated 30 September 2008 (**Appendix 12b**);
- Essence Consulting Group advice confirming that the likely impacts on Royal North Shore Hospital will be positive (**Appendix 13a**);
- Health Services Plan **(Appendix 13b**);
- a geotechnical report (**Appendix 14**);
- a contamination report (**Appendix 15**);
- a flora and fauna report (**Appendix 16**);
- an aboriginal archaeological report (**Appendix 17**);
- a traffic impact assessment (**Appendix 18**);
- an acoustic assessment (**Appendix 19**);
- a sustainability report (**Appendix 20**);
- a BCA report (**Appendix 21**);
- a fire safety assessment (**Appendix 22**);
- a communication plan (**Appendix 23);**
- a copy of the submission prepared by BBC Consulting Planners on behalf of the Proponent in relation to Draft Lane Cove LEP 2007 (**Appendix 24**);
- an access assessment report (**Appendix 25**);
- a construction management plan (**Appendix 26**);
- a letter from Lane Cove Council relating to planning agreements and Section 94 contributions (**Appendix 27**);
- sketch diagrams illustrating possible residential flat development of the site (**Appendix 28**);
- a letter from Lane Cove Council in relation to the road closure (**Appendix 29**); and
- a waste management plan (**Appendix 30**).

2. SITE AND SURROUNDING LOCALITY ANALYSIS

2.1 Site Description

2.1.1 Site location, general description and ownership

The land to which the project application relates comprises Nos. 1-8 Nield Avenue, Greenwich, along with part of the Nield Avenue road reserve and a pathway to the north of the site that leads to Morven Gardens. Nield Avenue is a short cul-de-sac.

The site is located to the west of the Pacific Highway, opposite land occupied by the Sydney Institute of TAFE and the Royal North Shore Hospital (see **Figure 1**). The site is located approximately 6km from the Sydney CBD and 0.8km from St Leonards railway station.

As illustrated on **Figure 2**, the site incorporates the following 10 residential properties, plus part of the Nield Avenue road reserve and a pedestrian pathway leading to Morven Gardens:-

- Lot 1, DP 26707 (No. 1);
- Lot 2, DP 26707 (No. 2);
- Lot 3, DP 26707 (No. 3);
- Lot 41, DP 555753 (No. 4A);
- Lot 42, DP 555753 (No. 4B);
- Lot 5, DP 26707 (No. 5);
- Lot 6, DP 26707 (No. 6);
- Lot 7, DP 26707 (No. 7);
- Lot 1, DP 535088 (No. 7a); and
- Lot 8, DP 397302 (No. 8).

Survey plans of the site are provided in **Appendix 6a**.

The site is irregular in shape and has an area of approximately 7,570m^2. Of this, 985m^2 comprises public road reserve, whilst another 128m^2 comprises a public pathway through to Morven Gardens (see **Appendix 6b**). Lane Cove Council has implemented a road closure process in relation to the lower section of Nield Avenue which contains the aforementioned areas. Council has agreed to sell that land to the Proponent (see **Appendix 29**).

The site is accessed from Nield Avenue which falls from its intersection with the Pacific Highway to the end of the cul-de-sac, within which is a landscaped island. The intersection

with the Pacific Highway provides for left-in, left-out turns only. Right turns are prevented by a central median.

The properties which comprise the site contain a variety of one, two or three-storey dwellings with associated car parking, driveways and garages, all accessed from Nield Avenue. The ages of the buildings vary, as does their condition, with some requiring significant maintenance. No heritage items are located on the site and the site is not within a conservation area.

The landscape character of the site is a mix of exotic and non-endemic native small trees, palms and shrubs dominated by several large endemic trees. There are approximately 140 trees on or adjacent to the site. The landscaped character of the site is evident from the aerial photograph in **Figure 3**.

The site is part-owned by Waterbrook at Greenwich Pty Ltd and part-owned by Lane Cove Council.

2.1.2 Existing dwellings

The position of the existing dwellings on the site relative to Nield Avenue and adjoining properties can be seen on the detailed survey plans in **Appendix 6a** and on the site analysis plan which forms part of the set of architectural drawings in **Appendix 8**.

There are 10 dwellings on the site: No's 1, 2, 3, 4A, 4B, 5, 6, 7, 7A, and 8 Nield Avenue. The separate characteristics of each of these properties are concisely and accurately described as follows in the geotechnical report in **Appendix 14**:-

> *"No. 1 Nield Avenue contains a two storey, brick and rendered house, with a driveway in its north-west corner. The driveway slopes to the north-west at around 5^{o} to 10^{o} and is bounded by a brick retaining wall on its eastern side. The wall is about 1.0m to 1.8m high, retaining the moderately sloping landscaped front yard to the east. A stepped path cuts through the wall providing access to the front of the house. The rear yard is terraced with the upper terrace retained by a timber wall, about 1m high. There is a shed in the south-east corner of the yard. A timber log wall between about 0.5m and 2m high runs along the western boundary of No. 1.*
>
> *No. 2 Nield Avenue is located at the toe of the log wall and is occupied by a two storey, rendered house. The front and rear yards are terraced and retained by brick, concrete and stone walls, generally less than 1m high. The brick wall on the uphill side of the driveway is in a poor, cracked and leaning condition. Apart from the driveway, the ground surface generally falls about 3m to 4m down to the west.*
>
> *There is a single storey brick house in No. 3 Nield Avenue, with a driveway towards its western side. The front and rear yards are grassed, with gardens and several trees. Ground surface levels fall from about RL 89m on the eastern boundary to RL 87m in the north-west corner and to RL 84m in the south-west corner.*

No's 4A and 4B Nield Avenue contains a one and two storey brick building with elevated timber decks on its western side. The northern end of the front yard is relatively flat (with a carport), then falls away steeply to the south at around 45^{o} to 60^{o}. The driveway along its eastern boundary is cut into the hillside and slopes down towards the south. Further to the west of the house, the ground surface falls away steeply, generally down to the west and south-west to a drainage easement. In the north-west corner, the ground rises steeply from the easement to the north-west. This lot is heavy vegetated with several trees.

The one and two storey brick houses in No's 5 and 6 Nield Avenue are located towards the north-west end of the lots. The rear yards are relatively flat and at the toe of masonry and brick retaining walls, 1m to 2m high. These walls support the ground in the neighbouring property to the north-west. The front yards contain driveways, landscaped terraces retained by minor walls, grassed areas, gardens and trees. The ground surface in the front yards slopes up to the south, rising about 2m in level towards the street frontage. The south-west portion of No. 5 also slopes steeply down to the south.

No. 7 Nield Avenue is occupied by a brick house with retained terraces on its western and northern sides. The walls supporting the terraces are generally less than 1m high. The large front yard is flat to gently sloping, heavily vegetated, and contains a concrete driveway in poor condition. There is a public concrete pathway between No. 7 and 7A to the east. No. 7A contains a two storey brick house, a detached garage and carport, landscaped areas, trees, and a concrete path. Ground surface levels fall steeply from RL 92m in the north-east corner, towards the south to around FL 87.5m at the garage, then is relatively flat. The south-east corner rises steeply to the street frontage.

The brick cottage on No. 8 Nield Avenue is located on a moderately sloping site which falls from around RL 93m in its north-east corner to about RL 88m adjacent to the south-west corner of the house. The lot contains concrete parking areas in its south-east and south-west corners and a timber walkway to the house. The northern and western sides of the parking area are retained by minor walls. A 1m high retaining wall also runs along the eastern boundary, retaining the site to the east.

2.1.3 Roadway and access path

Roadway

Nield Avenue is a short cul-de-sac accessible only from the north-bound lane of the Pacific Highway. It has a carriageway width of around five metres. There are no footpaths, only multiple gutter crossings from the properties which are accessed from it. An elliptical shaped landscaped island at its south-westerly extent occupies the bulb of the cul-de-sac. Several trees occupy the island. There is a particularly large remnant Blue Gum/Bangalay cross (*Eucalyptus saligna x botryoides*) within the landscape island in the bulb of the cul-de-sac. (The flora and fauna report notes that many Blue Gums in the surrounding area have

hybridised with Bangalay (*Eucalyptus botryoides*) and have bark and fruit characteristics of both species.) This tree is reported in the aboricultural assessment in **Appendix 7** as being structurally unstable, and likely to fail in the future.

Nield Avenue falls to the west from around RL 98.5 metres at its intersection with the Pacific Highway to around RL 92.5 metres where it intersects the eastern boundary of the site and to about RL 86.5 metres at the western end of the cul-de-sac (ie Nield Avenue has a fall of around 12 metres over its relatively short length).

Access path

The access path through to Morven Gardens from Nield Avenue has a width of around 2.5 metres. It is poorly maintained and unlit. There are stairs at its northern end.

2.1.4 Topography

The site lies on the western side of the ridgeline generally traversed by the Pacific Highway through Greenwich. The Pacific Highway rises from south to north in this locality. Accordingly, the topography of the site (and that of its neighbours alongside the Pacific Highway) falls from north to south and from east to west/south-west. The detailed survey (see **Appendix 6a**) indicates that ground surface levels fall across the site from around RL 92 metres – RL 94 metres at its eastern periphery down to around RL 87 metres at its north-west corner to around RL 73 metres towards the southern end of the western boundary.

The original topography of the site has been substantially modified to form building platforms, access driveways and terraced landscape gardens.

2.1.5 Drainage

The site forms part of a small, discrete catchment comprising residential and motel developments served by a drainage system of underground pipes. The constructed drainage system discharges into the lower parts of Gore Creek and in turn, the Lane Cove River and thence to Port Jackson. The site thus forms part of the 'Gore Creek Catchment'. There is an external catchment inflow to the site from Nield Avenue and surrounding properties to the east and north.

The site's existing stormwater drainage is limited to the developed areas and comprises the roof drainage on surrounding buildings, sparsely located surface inlet pits on pavements, all with discharge via a 1.83 metre easement over No. 4A Nield Avenue to the Council's 450mm diameter drainage pipe at the low, western site boundary.

The capacity of the receiving 450mm diameter pipe is equal to approximately the 2-year ARI storm run-off rate.

2.1.6 Services

All urban services are available to the site, reflecting its current use as 10 dwellings.

Sydney Water has a water main within Nield Avenue and has been consulted about the proposed road closure.

Energy Australia has overhead cables and three power poles within the area of the proposed road closure and has also been consulted about the proposed road closure. It requires an easement (via a Section 88B Instrument) over the proposed closure in order to cover the existing assets.

Alinta Asset Management also has assets in Nield Avenue and has been notified of the road closure. It also requires an easement over its assets in the section of road to be closed.

2.1.7 Flora and fauna

The existing flora and fauna characteristics of the site are the subject of the attached report in **Appendix 16** prepared by Footprint Green Pty Ltd. That report also describes the geology (section 2.2, page 3) and soil landscapes (section 2.3, page 7) of the site.

The report notes (on page 5) that the site retains very few indigenous species that are characteristic of the original ecological community. Vegetation consists of planted exotic species, noxious and environmental weed species, planted non-indigenous native species with several planted and remnant indigenous species. The canopy trees consist of a mix of planted exotic specimen trees and remnant indigenous species.

The trees on the site are the subject of a separate detailed aboricultural assessment also undertaken by Footprint Green (see **Appendix 7**). The aboricultural assessment reveals that there are 140 trees on or adjacent to the site.

The vegetation on the site can be grouped into three main units referred to in the flora and fauna report as Areas A, B and C:-

- Area A – road reserve and nature strip (245m^2);
- Area B – residential landscapes (2,590m^2); and
- Area C – urban gully (705m^2).

These areas are mapped on page 6 of the flora and fauna report. The urban gully vegetation unit is confined to the south-western part of the site and consists of a terraced embankment with low retaining walls and an open depression running in a north/south direction with sloping ground below the dwellings on No's 4A and 4B Nield Avenue. As noted in the flora and fauna report (page 9), a drainage easement runs through this area with a large underground concrete pipe conveying stormwater flows from Nield Avenue connecting to the Council's downstream drainage system. (There is a drainage pit located on the boundary on the common boundary between the site and No. 17G Bellevue Avenue.)

The flora and fauna report states that the modifications of the original habitats and vegetation have resulted in very few indigenous species remaining and over a total site area of 7,570m^2 consist of 27 indigenous species (some of which may be planted) out of a total of 130 species recorded on-site.

On page 27, the flora and fauna report assesses the vegetation communities on the site as follows:-

> *"The floristic analysis of the site has highlighted that the site does not contain sufficient indigenous species to confidently distinguish as to whether the original vegetation community on the site was Blue Gum High Forest or Sydney Turpentine Ironbark Forest. Notwithstanding the above, the site does contain 5 species that are positive diagnostic species of the Blue Gum High Forest and 6 species that are positive diagnostic species of the Turpentine Ironbark Forest.*
>
> *Consideration of the site's physical characteristics in relation to published general descriptors has not clearly identified as to whether the original habitats were Blue Gum High Forest or Sydney Turpentine Ironbark Forest.*
>
> *Published mapping by the NSW Department of Environment & Climate Change (NSW National Parks & Wildlife Service, 2002) indicates that the site was within the original distribution of Sydney Turpentine Ironbark Forest.*
>
> *In relation to the dominant remnant tree canopy, the local area contains isolated remnant Blue Gum/Bangalay cross (*Eucalyptus saligna x botryoides*), Sydney Blue Gums (*Eucalyptus saligna*) and scattered Turpentines (*Syncarpia glomulifera*) also occur within 250m of the site. Whilst Sydney Blue Gums (*Eucalyptus saligna*) are positive diagnostic species of both the critically endangered Blue Gum High Forest and the endangered Sydney Turpentine Ironbark Forest, Turpentines (*Syncarpia glomulifera*) are not diagnostic species of the Blue Gum High Forest but are positive diagnostic species of the endangered Sydney Turpentine Ironbark Forest.*
>
> *Whilst there is no conclusive data or model to positively categorise the original community that existed prior to the initial development of the site, based upon the above comments and for the purposes of this assessment, it is considered that the site was once representative of the Sydney Turpentine Ironbark Forest."*

With small pockets of bushland, scattered trees and a largely developed landscape, the local area surrounding the site has limited habitat potential for native ground-dwelling fauna and other species sensitive to habitat modifications and urban activities. Nevertheless, remnant trees and pocket vegetation in urban areas can typically provide core refuge habitat for less sensitive fauna species that are either frequent or common in urban areas. In this regard, the remnant large tree in the landscaped traffic island in the bulb of the Nield Avenue cul-de-sac contains a hollow at around 6 metres above ground. Observations were undertaken at dusk on 12 April 2008 to identify whether it was occupied by micro-bats. No such bats were detected.

Nocturnal surveys did, however, result in Grey-headed Flying-foxes (*Pteropus poliocephalus*) being observed flying over the site early in the night, and may utilise the trees on-site for foraging purposes.

The threatened Eastern Bent-wing Bag (*Miniopterus schreibersii oceanensis*) was recorded during a full night bats survey. The Eastern Bent-wing Bats (*Miniopterus schreibersii oceanensis*) and other micro-bats are commonly recorded feeding on moths attracted to lights in urban areas. Common Brushtail Possum (*Trichosurus vulpecular*) was also observed on the site and Possum scats were observed inside the vacant dwelling of 4B Nield Avenue.

The Sydney Turpentine Ironbark Forest vegetation community, Grey-headed Flying-fox and Eastern Bent-wing Bat are each considered in the flora and fauna report in accordance with the draft Guidelines for Threatened Species Assessments (DECC and DPI, 2005). No significant impacts on these species/communities will arise from the proposed development.

2.1.8 Contamination

The site has been used for residential purposes for at least 60 years and prior to that it was used for farming. An assessment of the site undertaken by Environmental Consulting Services (see **Appendix 15**) did not identify any previous land uses that are considered likely to result in site contamination.

2.1.9 Archaeological potential

The site has been the subject of a preliminary risk analysis of potential impacts on the Aboriginal cultural heritage values, undertaken by Australian Museum Business Services (see **Appendix 17**). It concludes that there are no Aboriginal constraints on the proposed development.

2.2 Surrounding Area

2.2.1 To the north

To the north of the site is a public pathway and cycleway known as Morven Gardens, beyond which and with frontage to the Pacific Highway, is a large parcel of land (zoned Residential 2(c)), standing upon which are two mainly 3-storey (but up to 4-storey) residential flat buildings above ground level parking. The pathway/cycleway has recently been upgraded as part of the recently completed Waterbrook at Greenwich seniors housing development (see Section 2.2.4 below), and a series of ramps provide disabled access over the steep part of the pathway adjacent to the Pacific Highway. The two residential flat buildings form part of a development known as Ridgeview at 214 to 220 Pacific Highway. A line of trees separates Ridgeview from the Morven Gardens pathway.

2.2.2 To the east

To the east of the site and with dual frontages to Nield Avenue and the Pacific Highway are two part 3- and part 4-storey residential flat buildings above car parking (ie the buildings are up to 5 levels). No's 206-210 Nield Avenue stands on the northern side of Nield Avenue, whilst No. 200 stands on the southern side of Nield Avenue. These two buildings, along with others along the western side of the Pacific Highway, are zoned Residential 2(c), the objective of which, inter alia, "is to retain the existing high level of residential development".

Both No's 206-210 Nield Avenue and No. 200 Nield Avenue contain west-facing windows and balconies on each level. In the case of No's 206-210 Nield Avenue, the closest west-facing windows to the subject site appear to be to bedrooms. They are setback around 3 metres from the common boundary with the subject land. The balconies are setback around 5.5 metres. In the case of No. 200 Pacific Highway, the balconies are setback around 3.5 metres from the common boundary with the subject land. There are clothes-drying facilities in the setback area.

South-east of No. 200 Pacific Highway is No. 198 which comprises a part 2-, part 3-level residential flat building. It has west-facing units with balconies. The balconies are setback around 8 metres from the common boundary with the subject land. Beyond No. 198 is the Greenwich Inn, a part 3-, part 4-storey motel (with café) and beyond that, at the corner of the Pacific Highway and Bellevue Avenue, is the substantial Accor Urban Hotel (with café) which rises to 5 storeys.

Opposite Nield Avenue, beyond the Pacific Highway, is:-

- TAFE NSW Northern Sydney Institute, North Sydney College, which stands on the northern side of Westbourne Street; and
- Gore Hill Cemetery which stands on the southern side of Westbourne Street.

Further to the east is Royal North Shore Hospital and North Shore Private Hospital. The site is located within the St Leonards specialised health and education 1km radius, as defined in the Inner North Subregion draft subregional strategy issued by the NSW Department of Planning (as shown on **Figures 4 and 5**).

2.2.3 To the south

To the south of the site and to the west of the Accor Urban Hotel is an apartment complex comprising two part 2- and part 3-storey apartment buildings fronting Bellevue Avenue (No's 7-15). The two buildings are between 8.5 to 17 metres apart from one another. Several apartments in the development face north-west across the subject site. They contain north-west facing windows, terraces and balconies. These apartments are raised above natural ground level at the rear of the site on which they are erected. Their height about natural ground level varies from around 1.5 metres to around 3 metres as each of the two buildings steps down the slope from east to west. As a consequence, there is a wall (to what appears to be a basement car park) of varying height along the northern side of each of these two apartment buildings. Along the northern wall of the eastern building there are retractable clothes-drying lines. There are no such drying facilities along the northern wall of the western building which steps at its north-western corner to a lower residential level. The ground level apartment in the north-western corner has a north-west facing terrace. The terrace is roofed by the balcony associated with the unit above. That balcony has a pergola above it.

These two buildings are separated from the common boundary with the subject land by a distance of around 6.5 metres to the car park wall and around 12 metres to the apartments proper. (This distance varies as the northern alignment of the apartments is irregular.) Between the car park wall and the boundary is a grassed area, perimeter trees and shrubs.

The north-west facing apartments have pergolas to provide partial sun protection.

On the southern side of Bellevue Avenue there are dwelling houses.

2.2.4 To the west

To the west of the site (and to the south of Morven Gardens), there are eight separate battleaxe lots (No's 17 and 17A-17G Bellevue Avenue) created out of one large battleaxe site, the steep driveway access to which runs between No's 7-15 Bellevue Avenue and No. 19 Bellevue Avenue (see **Figure 2**). (No. 17 is the first dwelling on the left as one descends the steep common driveway and then the properties are numbered clockwise, 17A to 17G). No. 17G is the dwelling in the subdivision erected closest to the western boundary of the subject site. It is a two-storey dwelling with a lower-level garage.

There are substantial level differences within the subdivision itself. Internal to the subdivision there are two small access roads with the higher access road serving the dwellings on the north-western side of the subdivision elevated above the lower access road serving the dwellings on the southern side of the subdivision. The dwellings on the north-western side of the subdivision are positioned well above the dwellings on the southern side.

Higher still than the higher-level dwellings on the western side of the subdivision are the dwellings with frontage to the south-eastern side Morven Gardens from which those dwellings obtain vehicular access. (Towards its southern extent, Morven Gardens becomes a trafficable road, accessed from Wisdom Road. The carriageway is only three metres wide.)

No. 6 Morven Gardens is located immediately to the west of the subject site and to the north-west of No's 17F and 17G Bellevue Avenue. No. 6 has a pool and deck in its south-eastern corner. The pool and deck are both elevated around three metres above ground level at the rear of the property.

To the north-west beyond Morven Gardens is "Waterbrook at Greenwich", recently completed. It is a self-care seniors living retirement village on a site of 13,100m^2 which comprises 79 apartments and a wide range of high-quality communal facilities. As part of the approved development, the footpath along Morven Gardens has been upgraded to accommodate disabled access and a sub-regional bicycle route. It was approved in October 2006 and was substantially completed in February 2008.

2.2.5 General locality

The site is located within 800 metres of the shopping centre of St Leonards which lies to the south-east. This centre provides a wide array of retail, commercial, public transport and personal services including medical and dental facilities. St Leonards railway station is located approximately 0.8km to the east of the site (see **Figures 4 and 5**).

3. DESCRIPTION OF PROJECT

3.1 Overview

The project comprises a hospital consisting of 147 patient care suites within a "U" shaped building of mainly 6 (but in small part, 7) storeys. The facilities and services in the new hospital will cater to aged and disabled persons but not exclusively. It will comprise a rehabilitation centre, post-operative and post-acute services, chronic pain management and treatment, palliative care, psychiatric services, psycho-geriatric assessment, dementia care and high care for the aged and/or disabled. It aims to set a new benchmark for this type of facility, the demand for which is acknowledged by the NSW State Government, the Federal Government and leading demographers. Due to the extended lifespan of the Australian population, demand for quality facilities of this type will increase dramatically after 2010, placing the public health system and government funding under increasing pressure. In this regard, the project is a response to increasing expectations for quality facilities and extra services, not only from occupants and their families, but also to attract nurses and carers from other employment sectors.

The project involves demolition of the existing buildings on the site, removal of the road within that part of the road reserve which forms part of the site (such part being subject to a road closure process already initiated by Lane Cove Council), removal of selected trees and other items of vegetation, preparatory excavation and bulk earthworks, and construction and operation of a new hospital. The key characteristics of the new hospital are set out below:-

- It will comprise 147 patient care suites located over six levels with defined wards/wings in a "U" shape configuration;
- Most patient care suites will have areas of either 28m^2 or 40m^2 (with a disabled ensuite to each suite) for individual in-patients;
- A rehabilitation centre is proposed on the lower floor and will include a hydrotherapy pool, gymnasium, multiple use rooms to deal with physiotherapy, speech therapy, occupational therapy, diversional therapy and other rehabilitation and post-operative medical services.
- There will be 39 beds dedicated to rehabilitation patients located within wards to the admissions and reception levels. These wards will accommodate patients being treated for orthopaedic rehabilitation, leg fractures, hip/knee replacements, arthritic and spinal conditions, cardiac rehabilitation, neurological rehabilitation such as stroke, spinal, post-surgical, Parkinson's disease, Multiple Sclerosis, and oncology patient rehabilitation.
- The medical services to be delivered to patients in approximately 39 beds in the wards on the reception level and Level 1 will include:-

  (a) Post-operative/post-acute services patients will be admitted as in-patients to receive medical services in the recuperation period following their acute session. This will include post-surgery treatment including pain management wound care management, medication management, nurse-administered clinical procedures (eg. care of

peritoneal dialysis catheter site, tracheotomy care). These services will support the acute medical and surgical services of nearby acute and surgical hospitals;

(b) Chronic pain management and treatment; and

(c) Palliative care.

- Psychiatric services will be provided to patients in the lower level wards of the hospital, in particular psycho-geriatric assessment and behaviour planning and management and also dementia care services for the aged. There will be 24 beds in total on this level. All patients will be admitted by qualified psychiatric medical practitioners.
- The remainder of the facility will be dedicated to high-level health care services to aged patients and to disabled patients of all ages. All of these patients will be dependent on the provision of nurse care, as directed by doctors/specialist consultants. All patients will require medical treatment, eg. care management, rehabilitation services, pain management, medication management, psychiatry and behaviour management, colostomy care and palliative care).
- Each ward will have a nurse station, linen, utility services and the like;
- There will be a central dining area and sitting room in each ward;
- The hospital will have a total workforce of 170-180 persons The maximum daytime staffing will be 65-67 persons of which 47-49 will be professional health care staff;
- The 89 parking spaces provided on site are for visitors and staff only as very few patients will drive, and include an undercover ambulance/undertaker vehicle space plus a service vehicle dock ;
- There will be a central kitchen and laundry room;
- Areas of accessible common open space will be provided; and
- Features of the landscaping will include a patient courtyard, densely vegetated buffers to common boundaries, lawn areas and reflective ponds.

A summary schedule of facilities in the proposed hospital is provided in the following table (overleaf):-

		Proposed Health Care Function	Total Suites / beds	Central Hospital facilities
Level 3	Ward A	Disabled	12	Café, staff terrace
RL 101.30	Ward B	High care	8	
			20	
Level 2	Ward A	High Care	13	
RL 98.20	Ward B	High Care	12	
			25	
Level 1	Ward A	Medical services	13	
RL 95.10	Ward B	Medical services	14	
			27	
Reception Level	Ward A	Medical services	12	Main Reception, Admin Offices, Meeting, Chapel, Drop off area
RL92.00	Ward B	Rehabilitation	16	
			28	
Upper Garden	Ward A	Rehabilitation	11	Admissions clinic, consultation rooms, ambulance, kitchen, loading dock, laundry collection, garbage storage, staff facilities.
RL88.80	Ward B	Rehabilitation	12	
			23	
Garden Floor	Ward A	Psycho-Geriatric	12	Counselling rooms, meeting rooms, carpark
RL85.80	Ward B	Dementia	12	
			24	
Lower ground Floor			0	Café, staff terrace
RL 82.50			0	
			0	
TOTAL			**147**	

There will be between 8 and 16 suites or beds per patient ward. Each patient will have his or her own room and own ensuite bathroom (that is, there will be one bed per room and no shared ensuite). The wards are designed to be interchangeable between health care functions, to enable flexibility as the pattern of demand between health services varies over the coming decades. Subject to the specific health services provided, 16 beds per ward is an industry acknowledged optimal bed per ward number to enable economic staff to patient ratios. Wards that have limited bed numbers are regarded as becoming uneconomic to operate due to incorrect health care staff to patient ratios.

The massing and envelope of the new building have been setback and articulated/modulated so as to limit overshadowing and adverse privacy affectation of neighbouring properties to the south and west. Landscape buffers are to be provided around the perimeter of the site, incorporating the retention, where possible, of significant trees.

Project application drawings are provided in **Appendix 8** which also includes a visual impact study and shadow diagrams. Landscape and civil services drawings are provided in **Appendices 9** and **10** respectively. Perspectives of the proposed hospital are provided in **Appendix 11**.

3.2 Demolition and Excavation

3.2.1 Demolition

All existing structures on the site will be demolished along with the removal of roads, pavements and pathways within the western part of Nield Avenue (ie that part to be closed), including the pathway extending from the northern side of Nield Avenue through to Morven Gardens.

3.2.2 Earthworks and excavation

The proposed hospital is to include an in-ground basement with a finished floor level of RL 82.5 metres. There will be a "wellness centre" in the south-eastern corner of the proposed hospital with a finished floor level of RL 82 metres. The base of the swimming pool will be at RL 80.5 metres. Construction will require graded bulk excavation to about 12 metres (maximum) depth with localised deeper excavations for footings, service trenches and lift wells.

Following removal from the site of selected trees, stumps and root-affected topsoil, soils will be excavated by a small to medium size excavator, front end loader or dozer. Based on the subsurface conditions encountered in the geotechnical investigations (see **Appendix 14**):-

- extremely low to low strength shale will most likely be excavated using a Caterpillar D7 dozer or equivalent with some light to medium ripping, or by a ripping hook fitted to medium to large excavators;
- removal of localised stronger iron indurate or ironstone bands/zones will require the use of heavier specialised equipment (eg rock hammers or larger dozers or heavy ripping); and
- excavation through the shale of medium to high strength will be more difficult, requiring large rock saws in combination with heavy ripping using at least a Caterpillar D10 or similar dozers. Rock hammer assistance to the ripping and hydraulic rock breaking equipment would also be suitable and would be required for detailed excavations such as footings or services.

As noted in the geotechnical assessment in **Appendix 14**, the use of heavy rock breakers will cause noise and vibrations. Depending on the locations of buildings and other structures in relation to the excavations, electronic vibration monitoring (ie measurement of peak particle velocities) may be required during the period of excavation. The geotechnical assessment notes that vibrations induced by excavations can be reduced by alternative methods such as the following:-

- Start the rock excavation away from likely critical areas;
- Maintain rock hammer orientation into the face and enlarge excavation by breaking small wedges off faces;
- Operate hammers in short bursts only, to prevent amplification of vibrations;
- Use smaller equipment (offset by a loss in productivity and economy and greater duration of the nuisance);
- Excavate a cut-off trench around the site to reduce vibrations from excavation activities; this can be done progressively with the rock saw;
- Use line drilling, especially along excavation boundaries, to aid breaking and trimming.

3.3 Tree Retention and Protection

Trees to be removed and trees to be retained (and protected during construction) are identified on Drawing nagtirl.01 Rev 0.4 in **Appendix 7** and on the Tree Retention and Removal Plan LA01C in **Appendix 9**. Retained trees are also identified on the landscape plan LA02C in **Appendix 9**.

The Aboricultural Report in **Appendix 7** identifies 140 trees on or adjacent to the site. Based on the architectural, landscape and civil services plans, the aboricultural assessment notes that:-

- 89 trees will be removed; and
- 51 trees will be retained.

The significance of the trees to be removed is addressed in Section 4.3.5.3 of this Environmental Assessment report.

In relation to the 51 trees to be retained:-

- 14 trees are considered to be of low landscape significance (Tree No's 47, 49, 59, 75, 94, 95, 96, 123, 124, 137, 138, 139 and 141);
- 25 trees are considered to be of moderate landscape significance (Tree No's 8, 17, 29, 30, 48, 55, 56, 58, 60, 61, 63, 65, 66, 72, 74, 79, 97, 98, 99, 100, 101 and 140);
- 9 trees are considered to be of high landscape significance (Tree No's 14, 15, 71, 76, 77, 93, 121, 122 and 126);
- 3 trees are considered to be prominent in the broader landscape (Tree No's 45, 104 and 125).

Of the trees to be retained:-

- 2 trees require designed tree protection measures in relation to the drainage alignment; and

- 49 trees require general tree protection measures prior to and during construction.

The aboricultural report states that provided the designed and general tree protection measures are implemented and works undertaken in a sensitive manner, the proposed development will not have a significant impact on the long-term health of the trees identified as being retained.

3.4 Setbacks, Site Coverage and Landscaping

3.4.1 Setbacks

The proposed hospital has been configured and positioned on the site with a view to minimising the overshadowing impacts on adjacent properties to the south and west. The setbacks are as follows:-

- Southern boundary: 9.174m to 9.545m
- Western boundary: <u>Northern wing</u>
11.440m to 13.7m

<u>Southern wing</u>
14.9m to 17.77m
- Northern/north-western boundary: (Morven Gardens) 4.0m to 11.0m
- Eastern boundary: 5.925m to 23.0m (excluding porte cochere)

The above setbacks from the northern boundary do not take into account the irregular western boundary of No's 206-210 Pacific Highway which runs parallel to Morven Gardens over a length of 18 metres, producing an area 6 metres wide, used in part for clothes drying.

3.4.2 Site coverage

The proposed hospital has a site coverage of 3,585m^2 which on a site of 7,570m^2 equates to 47.3%.

3.4.3 Landscaping

The landscape scheme for the site is described in the Landscape Design Report in **Appendix 4** and is illustrated on the set of landscape drawings in **Appendix 9**.

Of the total site area of 7,570m^2, 3,985m^2 or 52.6% will be landscaped area, of which 3,808m^2 or 50.3% of the site area will be deep soil planting. This provides ample scope for the implementation of a comprehensive landscape scheme to complement the site's immediate environs, particularly to the west and south.

The Landscape Design Statement concludes as follows:-

"The aim of the landscape design is to create an environment that is consistent with the values and character of the Lane Cove area that is achieved through an integration of the external environment and the development. In achieving this goal it has been important to create a sense of identity and character through the planting and hard landscape so that the external areas to the site provide a sustainable and aesthetically pleasing environment to the development.

The landscape treatment enhances the existing amenity of the site through the establishment of endemic native trees to form a strong canopy and creating an identifiable and characteristic landscape character.

The landscape proposal provides an appropriate amenity to the subject site and surroundings, and improves the overall visual quality of the area by creating an appropriate, ecologically sustainable relationship between the buildings and the landscape."

3.5 Gross Floor Area and Floor Space Ratio

3.5.1 GFA

The proposal has a gross floor area of 12,717m^2 when measured in accordance with the relevant definition in Lane Cove Draft LEP 2007.

3.5.2 FSR

A gross floor area of 12,717m^2 on a site of 7,570m^2 equates to a floor space ratio ("FSR") of 1.68:1. There is no FSR control applicable to the land imposed pursuant to Lane Cove LEP 1987. There is, however, a proposed FSR control of 1.2:1 in Draft Lane Cove LEP 2007. The Proponent made a submission to Lane Cove Council in relation to the proposed FSR control (see **Appendix 24**). At its meeting on 4 August 2008, Lane Cove Council resolved to increase the proposed FSR control under the Draft Lane Cove LEP 2007, to 1.5:1.

3.6 Height

The proposed hospital is to be erected on a site which falls from north and north-east to south-west and west. The height of the new building above finished ground level opposite Nield Avenue will be around 12 metres, equating to around 14.8 metres above natural ground level at that point. The maximum height of the new hospital will be just over 23 metres when measured from existing ground level on the south-western part of the site to the roof of the southern wing. This maximum height is associated with the most pronounced topographic variation on the site, where the land falls steeply around the existing dwelling at No. 4A Nield Avenue.

There are no height controls on hospitals in Lane Cove LEP 1987. There is a proposed height control of 12 metres applicable to the subject land in Lane Cove Draft LEP 2007. This control was objected to in the submission contained in **Appendix 24**. The proposed 12-metre

height control was considered to inappropriately respond to the existing heights of buildings within the proposed R4 High Density zone. At its meeting on 4 August 2008, Lane Cove Council resolved to the proposed height limit under the Draft Lane Cove LEP 2007, to 15 metres.

3.7 Access, Car Parking, On-site Circulation, and Associated Roadworks

3.7.1 Access

All vehicular access to the new hospital will be via Nield Avenue, which is to be truncated close to but within the eastern boundary of the site. A turning area will be provided within the site on the prolongation of the retained section of Nield Avenue to facilitate vehicle turnaround, without necessitating entry to the porte cochere or basement parking area. A public way easement will be created over the turning area (see **Appendix 6b**).

3.7.2 Car parking

There will be 89 parking spaces provided on the site:-

- 84 for staff, visitors and patients;
- 5 for doctors;
- Plus one ambulance/undertaker bay;
- Plus one truck space.

Of the 84 staff, visitors and patient spaces, a minimum of 4 will be configured and dimensioned for use by disabled drivers/passengers in accordance with AS 2890.1 criteria (hospital/medical 4%).

3.7.3 On-site circulation

The basement levels will be served by a circular ramp provided with 'barrier' centreline marking and vehicle mirrors at the apex of curves to assist safe and efficient movement. Turning path diagrams in Appendix A of the Traffic Report in **Appendix 18** demonstrate how relevant vehicles (eg an ambulance) can suitably negotiate, pass and manoeuvre on the ramps and in the car park areas. Ambulances and small service vehicles will only access the first basement level. Internal circulation arrangements will essentially accord with AS 2890.1 and will ensure satisfactory access, manoeuvring and turning within the various ground level and basement areas.

3.7.4 Associated roadworks

The projected traffic generation of the hospital during the on-street peak periods will be similar to that of the existing residential use of the site (refer page 11 of the Traffic Report in

Appendix 18). There will be no operational or congestion problems associated with the operation of the proposed hospital, given the absence of any significant increase in peak-hour traffic generation when compared to the existing situation and because:-

- all movements will be limited to left-turn in/out at the intersection of Nield Avenue with the Pacific Highway; and
- regular gaps are available in the northbound traffic flow on the highway as a result of the operation of the nearby traffic signals.

Accordingly, no associated roadworks are required other than post-construction restorative works within Nield Avenue (ie kerb, gutter and road tie in from the retained section of Nield Avenue into the new hammerhead turning facility which will be the subject of a public easement).

3.8 Construction Management

The proposed hospital will be constructed in accordance with the Construction Management Plan ("CMP") provided in **Appendix 26**. The CMP seeks to minimise disruption to the amenity of the locality during the demolition, excavation and construction process.

3.9 BCA Compliance and Fire Safety Strategy

A BCA Compliance assessment prepared by Steve Watson and Partners is provided in **Appendix 21**. It identifies that the proposed hospital is capable of compliance with the relevant provisions of the BCA – for both a Class 9a and Class 9c building – subject to the resolution of various matters or otherwise via a fire engineered solution.

A Fire Safety Strategy has been prepared for the proposed hospital by Stephen Grubits and Associates Pty Ltd (see **Appendix 22**). It documents the departures from the Deemed-to-Satisfy (DTS) provision of the BCA that are proposed to be satisfied by way of an Alternative Solution, and to identify the critical fire safety features that are considered to be required in order to achieve compliance with the relevant Performance Requirements. The Fire Safety Strategy states:-

> *"It is considered that the identified departures from the DTS provisions of the BCA are able to be supported by an Alternative Solution, based on the provision of fire safety features as identified within this report. This strategy is preliminary only and all parameters suggested herein are subject to consultation with stakeholders during the Fire Engineering Brief process.*
>
> *Demonstration that the specified fire safety strategy for the building will comply with the identified Performance Requirements will be the subject of a fire engineering assessment to be undertaken at a later date, using fire safety engineering methodologies in accordance with the* International Fire Engineering Guidelines*."*

4. KEY ASSESSMENT REQUIREMENTS

4.1 Part A – Heads of Consideration

4.1.1 Suitability of the site

The subject site is located just off the Pacific Highway at Greenwich, close to the Royal North Shore Public Hospital and only 800 metres from St Leonards railway station. The site lies within the 1km radius of the St Leonards specialised centre identified in the Inner North Subregional Draft Subregional Strategy (see Section 4.2.1.1 below and **Figures 4** and **5**).

The site comprises the consolidation of 10 existing residential properties along with part of the Nield Avenue road reserve and a pathway leading through to Morven Gardens. With an area of 7,570m^2, it is an exceptionally large site for this locality. Both the size and location of the site render it appropriate for a special use, including a hospital.

The subject site is also adjacent to Waterbrook at Greenwich, which was constructed and is operated by the Proponent. There are likely to be operational synergies between the two properties. Furthermore, the existence of the proposed hospital on land adjacent to Waterbrook at Greenwich will provide great peace of mind for those residents of the self-care apartments in the recently completed residential scheme, who may at some time in the future require professional health services, as in-patients, within the proposed hospital.

The site is not constrained by contamination or by significant impacts on any threatened species, populations or ecological communities. Whilst the site contains land which is relatively steeply sloping, the architectural design response has appropriately integrated the new building into the existing topography, ensuring a stepping and modulation of the building mass at the western ends of the two wings. Combined with the comprehensive landscaping proposed, this ensures that the perception of bulk when seen from surrounding properties to the south and west will be reasonable.

The site is accessible to vehicles solely via Nield Avenue. This means that all traffic generated by the proposed development will enter and leave the site via Nield Avenue without necessitating vehicular movements through surrounding residential streets. Notwithstanding the foregoing, the traffic generation of the proposed development will be very low (see traffic report in **Appendix 18**).

The site is presently in use as 10 dwellings: it is in a developed, and highly modified state, and the proposed development will not impinge on any significant ecological values subject to appropriate compensatory measures being put in place.

Hospitals are a permissible use under the existing Residential (B1) zoning and are to be permissible under the proposed R4 High Density Residential zoning, which is to be introduced through Lane Cove Draft Local Environmental Plan 2007.

Having regard to all of the above, it is considered that the site is eminently suitable for the purpose proposed.

4.1.2 Likely environmental, social and economic impacts

Environmental

Site analysis has revealed that Aboriginal archaeological and other heritage issues do not impose constraints on the redevelopment of the site (see **Appendix 17**). The flora and fauna analysis (see **Appendix 16**) reveals that the development can occur without giving rise to any significant impact on threatened species, communities or populations.

The traffic impact assessment (see **Appendix 18**) shows that traffic generation will be relatively low and that existing road infrastructure is capable of accommodating the proposed development. Furthermore, adequate parking will be provided on-site. Adequate loading and unloading arrangements will also be provided and space will be made available on-site for an ambulance.

The proposed hospital will not be a significant generator of noise. In fact, it will provide a particularly quiet environment, as is standard for most hospitals.

Careful configuration, placement, massing, and modelling of the proposed building has ensured that overshadowing impacts are not unreasonable and that the privacy of neighbours will be appropriately and adequately protected.

From a land use compatibility perspective, use of the land for the purposes of a hospital is both reasonable and appropriate. This is reflected in the permissibility of hospitals under both the existing and the proposed zoning.

Whilst some short-term adverse environmental impacts will arise throughout the construction period, these are capable of being mitigated with the implementation of appropriate precautionary measures which are documented in the various reports which accompany this Environmental Assessment and in the Construction Management Plan in **Appendix 26**.

Social

The proposed hospital will result in the positive social impacts, because it will meet a need for this type of facility which is well recognised not only within the Lower North Shore, but throughout the State.

People who will need to be admitted to the proposed hospital as in-patients presently have few alternatives from which to choose in terms of receiving the care which they need. It will be highly beneficial both to the prospective in-patients and to their family members, if they are able to receive the high level of care which they require within the Lower North Shore area. The proposed hospital will result in a reduced burden on other facilities (including Royal North Shore Hospital) which will be better able to meet demands placed on them both now and in the future.

Economic

The construction of the proposed hospital will have positive economic impacts throughout the construction period and through its operation. It will generate demands for labour, goods and support services, most of which will be capable of being met locally.

The proposed hospital will also have a positive economic impact in that it will reduce the burden on public facilities in the area, including the Royal North Shore Hospital (see **Appendix 13a**).

4.1.3 Previous DA's lodged on the site

The Proponent lodged a DA relating to the subject land with Lane Cove Council in February 2007 for a residential care facility pursuant to the relevant requirements of SEPP (Seniors Living) 2004 ("the previous DA"). As part and parcel of the previous DA, the Proponent proposed to acquire land from Lane Cove Council (ie the western part of Nield Avenue and the pathway through to Morven Gardens in respect of which the road closure process is now underway).

Numerous discussions took place between representatives of the Proponent and of Lane Cove Council in relation to the previous DA. The previous DA was advertised for public comment, resulting in a number of submissions. The issues raised in submissions are summarised in the letter from Lane Cove Council to the Department of Planning dated 28 January 2008.

The previous DA was, in part, reliant on an SEPP No. 1 objection or, alternatively, a rezoning of the subject site from Residential 2(B1) to R4 High Density Residential, such reliance being related to development standards in the Seniors Housing SEPP applying to FSR and height. However, although Lane Cove Council had at that stage embarked on the process of preparing a comprehensive LEP (which proposed to implement the above-described rezoning), the Draft LEP had not yet been exhibited. More importantly however, the Proponent received legal advice from its solicitors that the proposal was one which fell into the "Hospital" category in Schedule 1 of the Major Projects SEPP, having regard to its nature and capital investment value (ie more than $15 million). Reflecting the foregoing, the Proponent withdrew the DA in August 2007.

Pursuant to the relevant provisions of the *Environmental Planning and Assessment Regulation 2000*, a development application which has been withdrawn is taken never to have been made.

4.1.4 Justification for undertaking the project

The following justification can be provided for undertaking the project:-

- The proposal is permissible with consent under the existing zoning;
- The proposal will be permissible with consent under the proposed zoning;

- The proposed zoning is R4 High Density Residential, within which the proposed hospital will be compatible;
- The proposed hospital will stand next to a high-quality self-care seniors housing development (recently completed) and will provide an important and highly significant option for residents of Waterbrook at Greenwich and other residents of the wider area in the event that they ever need the high level of health care services which will be delivered in the proposed hospital;
- There is a substantial demand for the type of high-level health care services that will be provided in the proposed hospital;
- There are increasing expectations for quality facilities and extra health care services of the type to be provided in the proposed hospital;
- The location of the site is highly suited to the proposed development, given its proximity to the Pacific Highway, Royal North Shore Hospital, the St Leonards commercial centre, and Waterbrook at Greenwich; and
- The potential adverse environmental impacts arising out of the proposed development can be adequately mitigated, ensuring that the resultant long-term impacts are not unreasonable.

4.1.5 Consideration of alternatives

Overview

The existing zoning of the site proscribes the range of alternative land uses for which the subject land can be developed. (See Section 4.2.1.2 below.)

Permissible uses include townhouses and villa homes. Residential flat buildings are presently prohibited, but will be permissible if and when the R4 High Density Residential zoning is implemented.

Because dwellings and hospitals can be erected on the land with consent and because it is land zoned for urban purposes, the site is capable of being developed pursuant to the relevant provisions of the Seniors Housing SEPP. However, because residential flat buildings are prohibited on the site under the existing zoning, Clause 40(4) of the Seniors Housing SEPP:-

- requires the height of all buildings to be 8 metres or less;
- requires a building that is adjacent to a boundary of the site to be not more than two storeys in height; and
- requires that any building located in the rear 25% area of the site must not exceed one storey in height.

These restrictions will not apply when and if the site is zoned R4 High Density Residential within which residential flat buildings are to be permissible with consent.

Consideration has been given to three alternative forms of development: villa homes/ townhouses, residential apartments, and self-care Seniors Housing.

Villa homes/townhouses

If the site was to be developed for the purpose of villa homes or townhouses, then the density provisions in Lane Cove LEP 1987 would apply (refer Section 4.2.1.2). The maximum number of villa homes and townhouses would be 21 and 25 respectively.

If the site was not to include part of the Nield Avenue road reserve, then with a lesser site area of 6,528m^2, the density provisions in Lane Cove LEP 1987 would permit 18 villa homes and 22 townhouses. This form of development would not properly reflect the locational benefits of the site (within a 1 kilometre radius of the St Leonards Specialised Centre), would be a significant under-utilisation of the land relative to the uplift in zoning (to R4 High Density Residential) likely to be delivered by Draft Lane Cove LEP 2007, and would be commercially unattractive.

Self-care Housing

Sketch plans for an alternative form of site development in the form of Seniors Housing self-care apartments have been prepared by Marchese and Partners International (see **Appendix 28**). They show a similar building configuration to that now proposed for the hospital but with an additional (smaller) building located in the western corner of the site adjacent to Morven Gardens. Around 70 apartments could be accommodated. They would have a style and presentation similar to Waterbrook at Greenwich and potentially could be connected to that development.

However topographically, the Nield Avenue site presently faces greater challenges than the Waterbrook at Greenwich site. A larger car park than that required for the proposed hospital would be required, necessitating a deeper and more expansive excavation which would increase the costs of construction. Greater traffic volumes would be generated than for the hospital. They would still be lower, however, than for conventional residential apartments with approximately the same building form.

Residential flat development

If a similar building envelope to that illustrated on the diagrams in **Appendix 28** was to be adopted for a conventional residential flat development, around 117 apartments might be accommodated. These would be in mixed sizes: say 59 one-bedroom, 47 two-bedroom, and 12 three-bedroom. Such a mix would help meet the demand for smaller-style apartments in close proximity to St Leonards, Royal North Shore Hospital, and surrounding educational facilities.

Compared to the hospital scheme, it would generate considerably more traffic and would require a much larger car park. Privacy issues (visual and aural) would be more likely to arise than with the hospital scheme because of the more active use of balconies and outdoor terraces, and the higher occupancy rates of the internal spaces. Hospital patients are unlikely to give rise to the same levels of activity (or noise) as the occupants of conventional apartments. Nevertheless, such apartments would be entirely consistent with the proposed

R4 High Density Residential zoning and compatible from a land use perspective with adjoining uses.

4.1.6 Public interest

The public interest is best served by the delivery of high-quality, place-responsive, and environmentally well-considered developments which are consistent with the range of permissible uses in the locality and which satisfy an express demand/need without giving rise to unreasonable or excessive environmental impacts. In this regard, hospitals are presently a permissible use of the subject land.

However, in this case the proposal will serve a much broader public interest. It will provide a facility for which there is a recognised need (ie rehabilitation, medical services care and high-level care, particularly for aged/infirm and disabled persons). In doing so, it will relieve pressure on other facilities in the system: facilities that would need to meet the demands which will be met by the new hospital, if it were not to be constructed and operated.

It can be concluded, reasonably, and notwithstanding that some impacts will arise, that the proposal is therefore in the public interest.

4.2 Part B – Relevant EPIs, Guidelines and other requirements to be addressed

4.2.1 Planning provisions applying to the site including permissibility and the provisions of all plans and policies (including the Lane Cove LEP 1987, Lane Cove Draft Comprehensive LEP, relevant DCPs, SEPP 11, SEPP 55, SEPP 65, draft SEPP 66 and Sydney Harbour Catchment 2005 SREP)

4.2.1.1 Inner North Subregion Draft Subregional Strategy

The site is located within the St Leonards "Specialised Centre", as defined in the Inner North Subregion Draft Subregional Strategy issued by the NSW Department of Planning. (See **Figures 4** and **5**.)

As stated on page 4 of the Inner North Subregion Draft Subregional Strategy:-

> *"Subregional planning is an intermediate step in translating the Metropolitan Strategy to a local level, and recognises that some issues extend beyond local government boundaries and require a 'subregional' approach. The draft subregional strategies act as a broad framework for the long-term development of the area, guiding development, investment and linking local and state planning issues. They also provide the detail required to guide the preparation of Principal Local Environmental Plans (LEP's), which is the key legislation that links local council and state government in land use planning for each Local Government Area (LGA)."*

Key directions identified for the Inner North Subregion Draft Subregional Strategy are as follows:-

1. Strengthen the global economic corridor – North Sydney to Macquarie Park;
2. Reinforce the subregion's knowledge assets;
3. Protect strategic employment lands;
4. Improve housing choice and create sustainable and liveable communities;
5. Encourage use of public transport;
6. Protect and promote the harbour and bushland setting.

The Inner North Subregion Draft Subregional Strategy is intended to guide the preparation of new Principal Local Environmental Plans, including Draft Lane Cove Local Environmental Plan 2007 (see Section 4.2.1.3 below). The new LEP's are to reflect the strategic planning objectives of their region, which in the case of Sydney, is outlined in "City of Cities", released in 2005. As stated on page 15 of the Inner North Subregion Draft Subregional Strategy:-

> *"(The Draft Inner North Subregion Draft Subregional Strategy) acts as a framework for local councils in their preparation of new Principal LEP's. Local*

councils will be required to ensure their new Principal LEP's are consistent with the Subregional Strategies. In the Inner North Subregion, Mosman, North Sydney, Ryde, Willoughby and Lane Cove Councils are scheduled to complete their new Principal LEP by 2009, and Hunters Hill Council by 2011."

The "Specialised Centre" classification attributed to St Leonards, as depicted on **Figures 4** and **5**, is one of four strategic centres classifications in the Metropolitan Strategy, the other classifications being:-

- Global Sydney;
- Regional Cities; and
- Major Centres.

Specialised Centres denote areas of high-value economic activity. They are areas which contain major infrastructure, in the case of St Leonards, the Royal North Shore Hospital, North Shore Private Hospital, Northern Sydney Institute of TAFE, and a wide array of business activities which together perform a vital economic and employment role which generate metropolitan-wide benefits.

In relation to the St Leonards Specialised Centre, the Inner North Subregion Draft Subregional Strategy states at page 42:-

*"St Leonards has evolved as a Specialised Centre due to the regional-scale health and education campuses of the **Royal North Shore Hospital**, and **North Sydney College** (part of TAFE NSW – Northern Sydney Institute). These assets complement the Centre's existing commercial office space which makes it the third ranked suburban office market in Sydney.*

This Centre has experienced a recent surge in high-rise, mixed use development near the station, which benefits from good public transport and the high amenity of the surrounding area, including the Willoughby Road restaurant strip/night economy at Crows Nest.

The Centre is split between three Local Government Areas – North Sydney, Willoughby and Lane Cove Councils – which have prepared a strategy to strengthen St Leonards' economic role. The strategy identifies opportunities for St Leonards to attract businesses related to medical research and development and allied health fields.

A program is underway for expansion of the Royal North Shore Hospital, which acts as the major tertiary hospital for the wider Northern Sydney region. This has been declared as a State-significant site under the Major Project SEPP. An employment capacity target of 8,200 has been established for St Leonards, potentially bringing total employment in the Centre to 33,300 by 2031."

Strategy B2, on page 52 of the Inner North Subregion Draft Subregional Strategy is:-

"B2. Increase densities in centres whilst improving liveability"

The sub-strategy or action identified to achieve this strategy includes:-

"B2.1 Plan for housing in centres consistent with their employment role."

The Strategy, essentially, is to increase development densities close to nominated centres, to make these places more vibrant and provide much needed housing choice for the ageing and changing population. The proposed hospital is entirely consistent with this Strategy. It will increase the supply of high-care hospital accommodation available for the aged, frail and disabled, commensurately reducing the demand for such services on the public hospital system.

4.2.1.2 Lane Cove LEP 1987

Zoning

As shown in **Figure 6a**, the site is located within the 2(b1) zone under Lane Cove Local Environmental Plan 1987 ("the existing LEP"). **Figure 6b** illustrates not only the existing zoning pursuant to Lane Cove LEP 1987, but also zonings pursuant to Willoughby LEP 1995, which applies to land on the eastern side of the Pacific Highway. It will be noted that industrial and special use zonings presently predominate.

That part of the site which comprises the Nield Avenue Road reserve is not zoned. (See comments on "Unzoned Land" below.)

Zone objectives

The objectives of the Residential 2(b1) zone are as follows:-

"(a) to provide for townhouses or villa home development which will maintain the existing street character, and

(b) to provide for residential development which will be sympathetic to the neighbourhood in relation to setbacks, building mass and style, views, dwelling colour, landscaping, and the provision of off-street car parking and with minimum overshadowing of neighbouring development, and

(c) to ensure other forms of buildings permitted are of a lesser scale than the townhouse development, and

(d) to encourage the erection of buildings that are designed in response to the characteristics of the site and locality."

Objective (a) refers only to townhouses or villa development and not to other permissible land uses, such as hospitals, schools, churches and certain types of shops. Objective (b) relates only to "residential development" and not to permissible non-residential land uses.

The wording of objective (c) is in effect inconsistent with the range of permissible land uses in the 2(b1) zone and is confusing: particularly with reference to "the townhouse development".

Clearly, permissible uses (see below) such as educational establishments, places of public worship and hospitals do not usually, if ever, have a lesser scale than a townhouse.

Whilst objective (d) has broader applications, the objectives as a whole are difficult to interpret in the context of permissible non-residential land uses.

Permissible uses

In the Residential 2(b1) zone, the following purposes are permissible with consent:-

> *"Bed and breakfast establishments; child care centres; community facilities; drainage; dwelling-houses; dwellings used in conjunction with shops referred to in Schedule 1; earthworks; educational establishments; exhibition homes; family day care services; home industries; home occupations; home-based child care services;* ***hospitals****; places of public worship; professional consulting rooms; roads; shops referred to in Schedule 1; townhouses; utility installations (other than gas holders or generating works); villa homes."* (our emphasis)

The existing LEP adopts the majority of the *Environmental Planning and Assessment Model Provisions 1980* ("the Model Provisions"), including the definition of "hospital", which is as follows:-

> *"**hospital** means a building or place (other than an institution) used for the purpose of providing professional health care services (such as preventative or convalescent care, diagnosis, medical or surgical treatment, care for people with developmental disabilities, psychiatric care or counselling and services provided by health care professionals) to people admitted as in-patients (whether or not out-patients are also cared for or treated there), and includes:*
>
> *(a) ancillary facilities for the accommodation of nurses or other health care workers, ancillary shops or refreshment rooms and ancillary accommodation for persons receiving health care or for their visitors, and*
>
> *(b) facilities situated in the building or at the place and used for educational or research purposes, whether or not they are used only by hospital staff or health care workers, and whether or not any such use is a commercial use."*

The proposed hospital is consistent with this definition as it will provide professional health care services to people admitted as in-patients.

Development controls

The only development controls applicable within the 2(b1) zone are those which apply to villa homes and townhouses, in respect of which the maximum floor space ratios ("FSR's") achievable are 0.4:1 and 0.5:1 respectively. The total number of dwellings permissible on

land zoned 2(b1) is one per 350m^2 of site area in relation to villas and one per 300m^2 of site area in relation to townhouses.

On a site of 7,570m^2, these controls permit 3,028m^2 of villa home gross floor area or 3,785m^2 of townhouse gross floor area, whilst the maximum number of villa homes and townhouses would be 21 and 25 respectively.

"Gross floor area" for the purpose of determining FSR pursuant to the existing LEP is defined to mean as follows:-

> *"**gross floor area** means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1400 millimetres above each floor level excluding:*
>
> *(i) columns, fin walls, sun control devices and any elements, projections or works outside the general line of the outer face of the external wall,*
>
> *(ii) lift towers, cooling towers, machinery and plant rooms and ancillary storage space and vertical air-conditioning ducts,*
>
> *(iii) car-parking needed to meet any requirements of the council and any internal access thereto,*
>
> *(iv) space for the loading and unloading of goods."*

There are no development controls in the existing LEP relating to hospitals or to other non-residential land uses. Accordingly, there are no height or FSR limits, landscape and parking requirements or the like in the existing LEP with which the proposal, if submitted as a development application pursuant to Part 4 of the Act, would need to comply.

This provides a flexible planning environment, subject to how the objectives of the 2(b1) zone, and in particular objective (c) might be interpreted.

Unzoned land

The Nield Avenue road reserve is not zoned. The existing LEP adopts Clause 14 of the Model Provisions pursuant to which, development on public roads is permitted with development consent. Clause 14 provides as follows:-

> *"(1) A person shall not carry out development on a public road shown uncoloured on the map or part of such road lawfully closed without the consent of the consent authority.*
>
> *(2) The consent authority shall only grant its consent under subclause (1) for a purpose which may be carried out either with or without the consent of the consent authority on land adjoining that road."*

As a hospital is permissible on land adjoining the road reserve, a hospital is also permissible within the road reserve.

4.2.1.3 Draft Comprehensive Local Environmental Plan

Proposed zoning

A new comprehensive LEP ("the Draft LEP") has been prepared by Lane Cove Council in line with the standard LEP framework introduced by the Department of Planning to standardise the State's local planning system. It was placed on exhibition until 14 March 2008 and is known as Draft Lane Cove Local Environmental Plan 2007. BBC Consulting Planners made a submission to the Draft LEP on behalf of the Proponent, a copy of which is provided in **Appendix 24.**

As illustrated on **Figure 7**, the site and that part of Morven Gardens between Greenwich Stage 1 and the site is to be zoned R4 High Density Residential.

Zone objectives

The proposed R4 High Density Residential zone is intended:-

> *"• To provide for the housing needs of the community within a high density residential environment.*
>
> *• To provide a variety of housing types within a high density residential environment.*
>
> *• To enable other land uses that provide facilities or services to meet the day to day needs of residents."*

Permissible uses

Uses permissible with consent in the R4 High Density Residential zone are as follows:-

> *"Bed and breakfast accommodation, Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; Demolition; Drainage; Earthworks; Educational establishments; Group homes; Health consulting rooms; Home businesses; Home industries;* ***Hospitals****; Hotel accommodation; Multi dwelling housing; Neighbourhood shops; Places of public worship; Residential flat buildings; Roads; Seniors housing; Shop top housing; Utility installations."* (our emphasis)

The proposal falls within the definition of hospital in the proposed LEP. The definition which is similar but not identical to the definition of a hospital is the Major Projects SEPP (see Section 1.5) is as follows:-

> *"**hospital** means a building or place used for the purpose of providing professional health care services (such as preventative or convalescent care, diagnosis, medical or surgical treatment, psychiatric care or care for people with disabilities, or counselling services provided by health care professionals)*

to people admitted as in-patients (whether or not out-patients are also cared for or treated there), and includes ancillary facilities for (or that consist of) any of the following:

(a) day surgery, day procedures or health consulting rooms,

(b) accommodation for nurses or other health care workers,

(c) accommodation for persons receiving health care or for their visitors,

(d) shops or refreshment rooms,

(e) transport of patients, including helipads, ambulance facilities and car parking,

(f) educational purposes or any other health-related use,

(g) research purposes (whether or not it is carried out by hospital staff or health care workers or for commercial purposes),

(h) chapels,

(i) hospices,

(j) mortuaries."

The proposed hospital is thus permissible within the existing 2(b1) zone under the existing LEP and within the proposed R4 zone under the Draft LEP.

Development controls

Height

Pursuant to the provisions of the Draft LEP as exhibited, the site is within Area M on the Height Map, which is subject to a 12 metre height limit (see **Figure 8**).

Comments on the proposed height limits are set out in Section 7 of the submission prepared by BBC Consulting Planners in **Appendix 24**. The submission states that the 12-metre height limit to be applied to the Nield Avenue site is overly restrictive for such a large amalgamated site located adjacent to sites fronting the Pacific Highway which already accommodate buildings in excess of 12 metres in height. Greater flexibility has been requested in relation to the building height limit on the site.

"Building height" is defined in the Draft LEP as follows:-

*"**building height** (or **height of building**) means the vertical distance between ground level (existing) at any point to highest point of the building, including plant and lift overruns, but excluding communication devices, antennae, satellite dishes, masts, flagpoles, chimneys, flues and the like."*

The key reference in the above definition is "to the highest point of the building" as opposed to the uppermost ceiling level. Again, this warrants a height limit greater than the 12 metres nominated in the Draft LEP. Given that the R4 High Density zone is intended to promote a high density residential environment, there seems no readily discernible logic in prescribing height limits lower than the heights of existing buildings within the zone.

This has been recognised by Lane Cove Council which, at its meeting held on 4 August 2008, resolved to increase the proposed height limit to 15 metres.

Floor space ratio

The site is identified on the FSR Map as exhibited within Area P, which is to be subject to a 1.2:1 floor space ratio limit (see **Figure 9**). This is considered to be insufficient to achieve the high-quality hospital outcome now proposed.

Comments on the proposed floor space ratio limit are set out in Section 7 of the submission in **Appendix 24**.

"Gross floor area" is defined as follows in the Draft LEP:-

> *"**gross floor area** means the sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:*
>
> *(a) the area of a mezzanine within the storey, and*
>
> *(b) habitable rooms in a basement, and*
>
> *(c) any shop, auditorium, cinema, and the like, in a basement or attic,*
>
> *but excludes:*
>
> *(d) any area for common vertical circulation, such as lifts and stairs, and*
>
> *(e) any basement:*
>
> *(i) storage, and*
>
> *(ii) vehicular access, loading areas, garbage and services, and*
>
> *(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and*
>
> *(g) car parking to meet any requirements of the consent authority (including access to that car parking), and*
>
> *(h) any space used for the loading or unloading of goods (including access to it), and*

(i) terraces and balconies with outer walls less than 1.4 metres high, and

(j) voids above a floor at the level of a storey or storey above."

It should be noted that this differs from the existing definition of gross floor area ("GFA"), presently applicable through the relevant provisions of Lane Cove LEP 1987. Measured in accordance with the above definition, the proposal has a GFA of 12,717 metres, equating to an FSR of 1.68:1.

Lane Cove Council, at its meeting held on 4 August 2008, resolved to increase the proposed FSR on the land from 1.2:1 to 1.5:1.

4.2.1.4 Relevant DCPs

There are no DCP's specifically relevant to the development of a hospital on land zoned Residential 2(b1) within the Lane Cove LGA.

Provided below are details of existing DCP's which have general relevance to the subject land and/or development.

Residential Zones Development Control Plan

This Development Control Plan applies to the residential zones in the Lane Cove LGA but only contains provisions relating to foreshore development, villa homes, townhouses, flats, motels, subdivisions and trees. It does not apply to the development of land zoned 2(b1) for non-residential purposes.

Residential Zone 2(b1) Townhouse Development Control Plan

Whilst this DCP applies to land zoned Residential 2(b1), it only applies to townhouse development.

Development Control Plan – Stormwater Management

This DCP outlines the basic requirements for the inclusion of drainage plans for all development on and public land within the Lane Cove LGA. The proposal is accompanied by detailed hydraulic services and drainage concept plan reports (see **Appendices 5a** and **5b**) and by civil services plans which include all relevant stormwater management plans (see **Appendix 10**).

Access and Mobility Development Control Plan

This DCP provides guidelines for access both to and within buildings and public spaces for people who have a disability with a view to ensuring that all new development is accessible and usable to all people including those with a disability.

The proposal is accompanied by a detailed access assessment report (see **Appendix 25**) which addresses relevant access requirements. The proposal is consistent with the intentions and desired outcomes set out in the DCP.

Site Waste Management and Minimisation Development Control Plan No. 4

This DCP requires a waste management plan to be completed by Applicants and submitted with development applications, including applications for health care class 9(a) buildings.

A waste management plan is provided in **Appendix 30**.

4.2.1.5 SEPP 11 Traffic Generating Development

SEPP 11 was repealed on 1 January 2008 with the gazettal of the SEPP (Infrastructure) 2007.

4.2.1.6 SEPP 55 Remediation of Land

State Environmental Planning Policy No. 55 (Remediation of Land) ("SEPP 55") aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment by specifying that certain considerations be made by the consent authority when determining development applications in general, and by requiring that remediation work meets certain standards.

A contamination analysis of the site undertaken by Environmental Consulting Services has identified that there is no basis for concluding that the site might be contaminated or unfit for the proposed use (see **Appendix 15**).

4.2.1.7 SEPP 65 Design Quality of Residential Flat Development

SEPP 65 aims to improve the design quality of residential flat development. It applies to the erection of a new residential flat building, the substantial refurbishment or redevelopment of an existing residential flat building, and the conversion of an existing building to a residential flat building. A residential flat building means (for the purposes of this SEPP) a building that comprises three or more storeys and four or more self-contained dwellings. The proposal is for a hospital as defined in the Major Projects SEPP. It will not contain self-contained dwellings and will not be a residential flat building. Accordingly, SEPP 65 does not apply.

4.2.1.8 Draft SEPP 66 Integration of Land Use and Transport

Several years ago, the NSW Government exhibited a package of planning guidelines and policies for public comment, collectively known as the Integrating Land Use and Transport Policy Package ("the policy package"). The policy package, prepared by Planning NSW in association with Transport NSW and the Roads and Traffic Authority, applies primarily to the Sydney Greater Metropolitan Region, and was developed with the primary aim of reducing car dependency and providing more equitable access to jobs and services.

The policy package was prepared in order to implement strategies and achieve the aims identified in earlier strategies including Shaping Our Cites (the metropolitan planning strategy for the Greater Metropolitan Region of Sydney), Action for Air (the State government's air quality management plan), Action for Transport 2010 (the NSW transport plan), and the National Greenhouse Strategy. Further, the policy package aims to achieve a range of social, environmental and economic goals including equity, improved neighbourhood amenity and lower road congestion.

The policy package comprises the following components:

- Draft State Environmental Planning Policy No. 66 – Integration of Land Use and Transport (draft SEPP 66);
- The Right Place for Business and Services: Planning Policy ("the Planning Policy");
- Improving Transport Choice: Guidelines for planning and development ("the Guidelines"); and
- Employment and Journey to Work Patterns in the Greater Metropolitan Region.

Aims

Clause 2 of draft SEPP 66 states as follows:

> *"This policy aims to ensure that urban structure, building forms, land use locations, development designs, subdivision and street layouts help achieve the following planning objectives:*
>
> *(a) improving accessibility to housing, employment and services by walking, cycling, and public transport,*
>
> *(b) improving the choice of transport and reducing dependence solely on cars for travel purposes,*
>
> *(c) moderating growth in the demand for travel and the distances travelled, especially by car,*
>
> *(d) supporting the efficient and viable operation of public transport services,*
>
> *(e) providing for the efficient movement of freight."*

Development of a hospital within a 1.0 kilometre radius of the St Leonards Specialised Centre is consistent with these objectives.

Matters to be Considered in the Determination of a DA

If and when in force, the draft SEPP will require various matters to be taken into account in the determination of a DA. These matters are listed in Clause 3(2)(a)-(g). They include:

> *"(a) the aim and planning objectives of the policy;*
>
> *(b) the Integrated Land Use and Transport Policy Package;*
>
> *(c) the need to moderate and manage travel demand, particularly in the way traffic impacts are studied, assessed and acted upon; and*
>
> *(d) the provision of an urban structure that will assist the viability of, and encourage walking, cycling and public transport use."*

Building a new hospital just off the Pacific Highway within 800 metres of the St Leonards railway station is entirely consistent with the Draft Policy.

Notwithstanding all of the above, the Draft SEPP contains a saving provision meaning that it does not apply to applications lodged but not finally determined before the Draft Policy comes into effect. Thus, if it did come into effect it would not apply to the subject proposal.

Nevertheless, the proposed hospital is consistent with the principles in the Draft SEPP.

4.2.1.9 SEPP (Infrastructure) 2007

SEPP (Infrastructure) 2007 ("the Infrastructure SEPP") was gazetted on 21 December 2007 and came into effect on 1 January 2008.It repealed SEPP 11 which formerly applied to traffic generating development. However, the notification requirements which applied in SEPP 11 have in part been incorporated into the new Infrastructure SEPP. Clause 104 of the Infrastructure SEPP applies to development set out in Schedule 3 of the SEPP that involves new premises of the relevant size or capacity on an enlargement or extension of existing premises, being an alteration or addition of the relevant size or capacity:

> *"'Relevant size or capacity' means:*
>
> *(a) in relation to development on a site that has direct vehicular or pedestrian access to any road – the size or capacity specified opposite that development in Column 2 of the Table to Schedule 3, or*
>
> *(b) in relation to development on a site that has direct vehicular or pedestrian access to a classified road or to a road that connects to a classified road where the access (measured along the alignment of the connecting road) is within 90m of the connection – the size or capacity specified opposite that development in Column 3 of the Table to Schedule 3."*

Schedule 3 lists various types of traffic generating development, including "hospitals". Schedule 3 places hospitals with a size of 200 or more beds into Column 2, whilst hospitals with a size of 100 or more beds fall into Column 3.

As the proposal has more than 100 beds but less than 200 beds and relates to a site with access to a road (ie Nield Avenue) that connects within 90 metres to a classified road (ie the Pacific Highway), then Clause 104 would apply to the proposed development if it were the subject of a development application. Clause 104(3) requires:-

> *"(3) Before determining a development application for development to which this clause applies, the consent authority must:*
>
> *(a) give written notice of the application to the RTA within 7 days after the application is made, and*
>
> *(b) take into consideration:*
>
> *(i) any submission that the RTA provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, the RTA advises that it will not be making a submission), and*

(ii) the accessibility of the site concerned, including:

(A) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and

(B) the potential to minimise the need for travel by car and to maximise movement of freight in containers or bulk freight by rail, and

(iii) any potential traffic safety, road congestion or parking implications of the development."

4.2.1.10 Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 "Sydney Harbour Catchment SREP") was gazetted on 28 September 2005 and replaced Sydney Regional Environmental Plan No. 22 - Parramatta River and Sydney Regional Plan No. 23 - Sydney and Middle Harbours. The site falls within the map area shown edged heavy black and hence is affected by Sydney Harbour Catchment SREP (2005).

The site is not located within the Foreshores and Waterways area, nor is it identified as a strategic foreshore site. The site is not a heritage item, nor is it within a wetlands protection area as shown on the maps which accompany the Sydney Harbour Catchment SREP (2005).

The proposed development will not have an adverse impact on the natural, scenic, environmental, cultural or heritage qualities of Sydney Harbour. Therefore, the proposal is considered to be consistent with the aims of the SREP (Sydney Harbour Catchment 2005).

4.2.2 Nature and extent of compliance with relevant EPIs

Relevant EPI's (and other strategic planning considerations) are addressed above in Section 4.2.1 of this Environmental Assessment and in Section 1.5 which sets out the relevant provisions of the Major Projects SEPP, pursuant to which hospitals with a capital investment value of more than $15 million fall within Part 3A of the EP&A Act. Were it not for Part 3A, then Lane Cove Council would be the consent authority for the development of the land. In this regard, hospitals are permissible with consent in the Residential 2(b1) zone established by Lane Cove LEP 1987. There are no relevant development standards applicable to hospitals in the LEP. Accordingly, no non-compliances with development standards arise. It is only the 2(b1) zone objectives which apply (see Section 4.2.1.2 above).

The proposal also gives rise to no non-compliances with any other gazetted environmental planning instrument.

Non-compliances do, however, arise in relation to the proposed controls in Draft Lane Cove LEP 2007 which (in the form it was exhibited) proposes a maximum height limit for the land of 12 metres and a maximum floor space ratio of 1.2:1. The Proponent objected to various aspects of the Draft LEP including the proposed height and FSR controls (see **Appendix 24**). These proposed controls have subsequently been amended by Council to 15 metres and 1.5:1. The proposal has a maximum (but not general) height of around 23 metres (where

there is a pronounced fall in the south-western corner of the site) and a floor space ratio of 1.65:1 or thereabouts.

4.2.3 Evidence of application for a licence for the premises as a private hospital under the *Private Hospitals and Day Procedure Centres Act 1988*

This Director-General's environmental assessment requirement has been addressed in the Health Services Plan provided in **Appendix 13b.** The Health Services Plan states as follows**:-**

> *"The Private Health care branch of NSW Health was also consulted by the proponent as a precursor to the proponent applying for and obtaining private hospital bed licences from NSW Health. This resulted in Murlan Consulting on behalf of the proponent issuing a letter dated 12 September 2008 to NSW Health seeking clarification as to private hospital bed licence application process. NSW Health issued a response letter on 30 September 2008 confirming private bed licences will be required to a number of the beds to the proposed private hospital to Nield Avenue, Greenwich as required of the Private Hospitals and Day Procedures Act 1998. Both of these letters are included in the EA document* ***(Appendices 12a*** *and* ***12b)****.*
>
> *Further consultation with health care providers, health care funds and specialist medical practitioners to ascertain the best balance of health care services and facilities to be provided. At all times the proponent will have particular regard to the regulatory requirements and health care services approvals required to be complied with both prior to and during on-going operation of the proposed health care facility.*
>
> *This further consultation will result in the compilation of the Operations Management Plan (OMP) and also the proponent or their agent applying to NSW Health for private bed licences as required of the Private Hospitals and Day Procedures Centres Act 1998. The Health Planning Units (as covered in the Australian Health Facility Guidelines) that are relevant to the facility will be clearly defined in the OMP."*

4.3 Part C – Key Issues to be addressed

4.3.1 Hospital land use

4.3.1.1 Type of health care facility proposed (eg private hospital, public hospital, aged care facility etc), identification of relevant regulatory jurisdictions and approvals required

The proposal is for a hospital as defined in Schedule 1 of the Major Projects SEPP. Of the 147 beds in the hospital, 79 will be licensed as private hospitals beds by NSW Health.

All patients are expected to be in-patients. The hospital will not be designed to service out-patients or day patients, although occasional out-patients may utilise the rehabilitation centre.

The Proponent has provided measurable information as to how patients will be admitted as in-patients (rather than being residents) and about the type of professional health care services to be provided, through a "Health Services Plan" which is included in Appendix 13b.

Professional health care services which will typically be provided in the proposed hospital as stated in the Health Services Plan include:

5. Rehabilitation Centre and wards

A rehabilitation centre is proposed on the lower floor and will include a hydrotherapy pool, gymnasium, multiple use rooms to deal with Physiotherapy, Speech Therapy, Occupational Therapy, Diversional Therapy and other rehabilitation and post operative medical services.

39 beds are proposed to be dedicated to rehabilitation patients. These wards will include patients being treated for orthopaedic rehabilitation, leg fractures, hip/knee replacements, arthritic and spinal conditions, cardiac rehabilitation, neurological rehabilitation such as stroke, spinal, post-surgical, Parkinson's disease, Multiple Sclerosis, and Oncology patient rehabilitation.

6. Medical Services wards

A range of medical and health services are proposed for the remainder of the hospital. The medical services described under this heading will be specific to approximately 39 beds.

The medical services will include:

(a) Post-operative / Post-acute services. Patients will be admitted to receive medical services in the recuperation period following their acute session. This would include post-surgery treatment including pain management, wound care management, medication management, nurse administered clinical procedures (eg care of peritoneal dialysis catheter site), and tracheotomy care. These services will support the acute medical and surgical services of nearby acute and surgical hospitals.

(b) Chronic pain management and treatment.

(c) Palliative care.

7. **Psycho-Geriatric and dementia wards**

   Psychiatric services are to be provided to the lower level wards of the hospital, in particular psycho-geriatric assessment and behaviour planning, management and treatment and also dementia care services for the aged. There are 24 beds in total to this level. All patients will be admitted by qualified psychiatric medical practitioners.

8. **High care for the aged and disabled wards**

   It is proposed that the remainder of the facility be dedicated to high-level health care for in-patients who will be dependent on the provision of professional health care services (eg care management, rehabilitation services, pain management, medication management, psychiatry and behaviour management, colostomy care and palliative care) and who will be admitted by medical practitioners into the hospital.

4.3.1.2 Comment as to how the proposal differs from 'residential care facilities' such as those defined in the Seniors Housing SEPP

The predominant reason for in-patients being admitted to the new hospital will be that they require professional health care services within a hospital environment. Their admittance will not be as residents, as is the case in a residential care facility. They will not be receiving Commonwealth funding or subsidies for their stay in hospital, as is generally the case in a residential care facility. The high level of available specialist professional health care services within the hospital is the reason why in-patients will be admitted to the facility: that is, to be able to benefit from the services provided there. It is this high level of specialist professional health care services which will differentiate the proposed hospital from a residential care facility.

Furthermore, typical residential care facilities do not offer the level of professional health care services that will be available at the proposed hospital, nor the integration of those professional health care services throughout all wards (rehabilitation centre, medical services, dementia, psycho-geriatric and high-care). This means that the full range of health care services provided in the hospital will be available to in-patients irrespective of into which ward they are admitted.

4.3.1.3 General compliance with the 'Healthy Facilities Guidelines' including: role delineation and levels of service the facility is designed for; staff profiles; Health Planning Units (HPU's) and schedule of accommodation; and functional relationships diagram

This Director-General's environmental assessment requirement has been addressed by the Health Services Plan provided in Appendix 13b. As noted in the Health Services Plan, following finalising the private bed licensing allocation process with NSW Health, the Health Planning Units (as covered in the Australian Health Facility Guidelines) that are relevant to the facility will be clearly defined in the Operations Management Plan. The proposed hospital will be designed and constructed to the Australian Health Facility Guidelines, the BCA and other relevant regulatory requirements.

4.3.1.4 Funding arrangements and evidence of any applications/approvals for funding

No applications have been made, nor approvals sought for funding.

4.3.1.5 Confirmation the proposed building complies with Class 9A building requirements under the Building Code of Australia

Steve Watson and Partners has prepared a comprehensive BCA compliance assessment of the proposed hospital (see **Appendix 21**). The assessment confirms that the proposed building can comply with the BCA provisions applying to a Class 9a building subject to some further design development (as is standard for large, complex projects), or otherwise via a fire engineered alternative solution. The executive summary of the BCA report states:-

> *"An assessment of the proposed design of a 7 storey private hospital has been undertaken against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the Building Code of Australia (BCA). The assessment has shown that the proposed development is capable of complying with the BCA, subject to the resolution of a number of areas that will be addressed either through design development, or otherwise via a fire engineered alternative solution.*
>
> *It is considered that the areas required to be addressed through design development will be resolved in a manner which will not render the design inconsistent with the Development Application plans. Similarly, the issues required to be addressed via a fire-engineering solution have been reviewed by the fire-safety engineer for the project and found to be resolvable within the context of the proposed design.*
>
> *This report assumes a 9a Classification for the building. Note that an assessment has also been undertaken of the design against the relevant DTS provisions of the BCA pertaining to a Class 9c aged care facility. That assessment revealed issues similar to those identified in this report, and that the building was also capable of complying with the BCA if assessed under that classification.*
>
> *Therefore, noting that the changes in the design are minor and are able to be accommodated within the capacity of the development approval, it is concluded that the building is capable of complying as either a Class 9a hospital and Class 9c aged care facility."*

4.3.1.6 Any evidence of private bed allocation from NSW Health

Please refer to Section 4.2.3 of this report

4.3.1.7 Staging/timing of approvals process, building construction and operation of facility

The Proponent's current staging plan is as follows:-

- March 2009: Obtain Part 3A approval for the major project;
- July 2009: Commence construction (21 months duration);
- March 2011: Commence operations.

4.3.1.8 Summary

The proposal is for a hospital as defined in the Major Projects SEPP. Of the 147 beds, 79 will be licensed as private hospital beds by NSW Health. The beds which are not licensed will still form part and parcel of the hospital. They comprise psycho-geriatric and dementia ward

beds and high care for aged and disabled ward beds. They, like the beds which are to be licensed, will be occupied by in-patients who require professional health care services, and who are admitted by medical practitioners into the hospital. Unlike a residential care facility (as defined in the Seniors Housing SEPP, such definition specifically excluding a "hospital"), the in-patents will not receive Commonwealth funding or subsidies for their stay in hospital. The high level of specialist professional health care services will also differentiate the proposed hospital from a residential care facility.

4.3.2 Urban form and design

4.3.2.1 Urban design, height, density, bulk, scale and character of the proposal in relation to the surrounding development, landscape and topography (particularly to the rear of the site)

Urban design

The design rationale for the proposal is explained in the architect's design statement in **Appendix 2**, whilst the urban design aspects of the proposed hospital are the subject of an assessment by Professor Peter Webber, provided in **Appendix 3** of this Environmental Assessment.

Additionally, it is evident from the architectural plans in **Appendix 8** (which include a visual impact study comprising "before" and "after" photographs from four locations around the site) and from the perspectives in **Appendix 11** that considerable effort has been made to reduce the perceived bulk and scale of the proposed development through significant modulation and articulation of the built form. The incorporation of two wings (northern and southern) on the western part of the site which frame a substantial central landscaped courtyard, contributes to a fragmented massing when viewed from the west. This will be further complemented by comprehensive landscaping around the site.

From an urban design perspective, the proposal is considered to be an environmentally responsive, carefully refined and well-considered solution to the development constraints of the site.

Height

The contextual relationship of the proposed hospital to surrounding buildings is illustrated on the macro elevations provided in **Appendix 8**. These show that the height of the proposed development is entirely within context when consideration is given to surrounding buildings to the north-west, north, east and south.

The proposed building is below the heights of nearby buildings to the north, and below the predominant height of buildings which line the Pacific Highway to the east. This results in a building form which reflects the topographic fall from east to west and north to south.

The north to south fall is reflected in the proposed building being higher than its nearest neighbour to the south (ie No's 7-15 Bellevue Avenue) but as is evident from the Bellevue Avenue macro elevation (in **Appendix 8**), not unreasonably so. The shadow diagrams included in **Appendix 8** demonstrate the overshadowing impacts on No's 7-15 Bellevue Avenue associated with the height of the proposed hospital are not unreasonable.

In relation to the adjoining lower density residential development to the west and south-west at No's 17 to 17G Bellevue Avenue, the following observations are relevant:-

- These properties are in a gully and are very low-lying relative to surrounding development;
- The proposed hospital comprises two wings of 4-6 levels (with one small part that comprises 7 levels) projecting towards these properties from the main body of the hospital building;
- The main body of the hospital is setback 43 metres from the western boundary of the site;
- The northern wing of the hospital, at its closest point, is around 23 metres from No. 17G Bellevue Avenue which is the nearest dwelling in the low-lying subdivision to the western boundary of the subject site;
- The northern wing tapers and steps to the west – at its westernmost point it is only 15 metres wide;
- The southern wing of the hospital at its closest point to No 17G Bellevue Avenue is around 16 metres distant, and 14.9 metres from the common boundary;
- The southern wing has a width of around 22 metres and steps at its western end;
- The resultant building height when viewed from the west, whilst substantially greater than that of the single dwellings within the low-lying subdivision, is fragmented (the wings are around 27 metres apart), well setback, stepped away from the western boundary and heavily screened by vegetation (refer Landscape Elevation LA 04C in **Appendix 9**); and
- Between No. 17G Bellevue Avenue and the two wings of the new hospital is an open space area, comprehensively landscaped with a minimum depth of 14 metres (increasing to 43 metres between the wings) and a width of 70 metres.

The height of the new hospital needs to be considered in this context.

Furthermore, the hospital's presentation to Nield Avenue (ie its eastern façade) has a height of four storeys, which is less than that likely to flow from any rezoning of the site to R4 High Density Residential, if a 15-metre height limit is imposed. (Refer Drawing DA 3.02 in **Appendix 8**.)

Density

No density controls apply to hospital developments within the Residential 2(b1) zone. However, pursuant to the provisions of Draft Lane Cove LEP 2008, a floor space ratio restriction on all development within the R4 High Density Residential development is to be introduced (ie 1.2:1). In contrast, the proposal has a floor space ratio of 1.65:1. The Proponent has objected to the floor space ratio limitation in the Draft LEP (see **Appendix 24**).

Density controls, such as floor space ratios, are intended to control a number of factors: building bulk and scale, traffic generation, and land use intensity. Given that the traffic

generation of the proposed development will be relatively low (see **Appendix 18**), that the bulk and scale are mitigated by the proposed setbacks, landscaping and building articulation, and that the amenity impacts of the proposed hospital are demonstrably acceptable (for example, in terms of overshadowing and privacy impacts), then there is a sound planning basis for permitting the floor space ratio which is proposed, especially within a 1 kilometre radius of St Leonards that comprises the St Leonards Specialised Centre.

The proposed hospital will fulfil an important purpose and will meet a recognised need in the locality for the type of services to be provided in the hospital. From a density perspective, it is considered to be both reasonable and appropriate.

Bulk and scale

Reference to the macro elevations in **Appendix 8**, reveals that the bulk and scale of the proposal are appropriate within the local setting. Sitting below the heights of buildings to the north and east, the proposal reflects the topographic fall of the area.

Seen from the south and west, the proposal is considered to be reasonable because of its design detail (ie high level of articulation and modelling), landscaped setting, and substantial landscaped setbacks.

In particular, the fragmentation of the built form into two wings (northern and southern) when seen from properties to the west through a landscaped buffer will ensure that the bulk and scale are not inappropriate when viewed from those properties.

The visual impact analysis which forms part of the set of DA plans in **Appendix 8** presents the likely appearance of the proposal when viewed from Waterbrook at Greenwich (near to the porte cochere), from the top of Nield Avenue (looking down to the west), from between the two apartment buildings which together comprise No's 5-17 Bellevue Avenue (looking north), and from within the low-lying residential subdivision to the south (looking east). These "before" and "after" views indicate an acceptable bulk and scale within the local context.

Character

A hospital is compatible in a predominantly residential environment, as recognised by the existing and proposed zoning provisions which apply to the land. The character of the use is thus considered to be entirely appropriate. Furthermore, the design of the proposed hospital is far from indicative of an institutionalised function. It has residential external design characteristics which further complement the locality.

4.3.2.2 Impact upon the local streetscape, landscape and existing views

Nield Avenue presents an architecturally nondescript streetscape. Framed by the two bland residential flat buildings adjacent to the Pacific Highway, Nield Avenue opens to the low density residential setting associated with the existing 10 lots, each supporting an architecturally undistinguished dwelling house.

The landscaped island provides the dominant streetscape characteristic in Nield Avenue. However, it primarily services the 10 lots which surround it (which comprise the site).

The streetscape of Nield Avenue beyond the two residential flat buildings adjacent to the Highway will be transformed by the proposed hospital with the creation of a new visual focal point (ie the entrance and porte cochere to the hospital) when viewed from the Pacific Highway. This is immediately evident from the Visual Impact Study from the Pacific Highway shown on Visual Impact Study No. 2 (Drawing DA-1.04) in **Appendix 8**.

As shown on the macro elevations in **Appendix 8**, there will be little impact on the Pacific Highway or Bellevue Avenue streetscapes. The proposed hospital will be seen very much as a background (recessive) element when viewed from either of these two roads, and will be seen within a landscaped context, especially from Bellevue Avenue.

The proposal will, however, impact on the existing landscape composition of the site through the removal of a significant number of trees and other vegetative elements and the erection of a structure which will be far more dominant in the landscape than any of the existing dwellings on the site. Such a consequence might be expected from any significant redevelopment of the site, including any residential flat building erected in accordance with the proposed R4 High Density Residential zoning, once introduced through Draft Lane Cove Local Environmental Plan 2008.

Views and outlook from adjoining buildings mainly to the east along the Pacific Highway but also to the north of Morven Gardens (ie Ridgeview) will be impacted by the proposed hospital. West-facing units in those buildings to the east (other than those on the lowest level, whose views may already be obstructed in part by the existing dwellings on No's 1 and 8 Nield Avenue) and south-facing units in Ridgeview to the north enjoy leafy outlooks into and in some cases over the subject site, dominated as it is (visually) by substantial trees, to the west (to the Blue Mountains) and south-west, and (in the case of Ridgeview) to the south.

Affectation of and curtailment to this outlook is predominantly associated with the height of any building erected on the northern part of the site closest to the affected units. Overlay of the hospital roof plan on the survey plan base reveals that the predominant roof height (RL 104.4 metres) is around 10.75 metres above existing ground level (RL 93.75 metres) at the south-eastern corner of the proposed building and around 12.6 metres at the north-western corner (RL 91.88 metres). At the centre of the proposed building, along its northern edge, the predominant roof level at RL104.4 metres is around 15 metres above existing ground level. This reflects the fall in ground level towards Nield Avenue from No's 1 and 8 Nield Avenue, which stand respectively to the south and north of the street.

The height of the proposed development (ie four storeys) closest to the existing residential flat buildings to the north east on either side of Nield Avenue is thus partly within and partly not greatly in excess of the proposed height limit in Draft Lane Cove LEP 2007 (ie 12 metres). It is thus highly likely that there will be an impact on westerly views and outlook from the west-facing units in those buildings as a consequence of the proposed rezoning, except from the uppermost level in each building. It is acknowledged, however, that the extent of likely view affectation is increased by the infill (by the new building) of what is now road reserve. Corner units in the two adjoining residential flat buildings to the east, either side of Nield Avenue, presently have an outlook to the west along and over Nield Avenue. This will be interrupted by the proposed hospital, as it would be by any four-storey residential flat development proposed pursuant to the R4 High Density Residential zone (once introduced)

which, as with the proposal, benefits from the greater design flexibility and site area afforded by the road closure, now underway.

In case of Ridgeview south-facing units in that complex, and particular in the westernmost building look out over the subject site. Some west facing units in the development would also have oblique views over the subject site, particularly from west facing balconies.

With a roof ridge of RL 108.37 the western most Ridgeview building is around 4.0 metres higher than the predominant roof height of the proposed hospital (ie RL 104.4metres), whilst the eastern Ridgeview building is around 8.0 metres higher at RL 112.5 metres. The southern outlook from south facing windows in the western-most building will be obstructed by the proposed hospital. The south westerly outlook from south facing windows in the eastern-most building (except from the windows on the top level) will also be obstructed. The outlook nevertheless will be interspersed by trees and other vegetation both within Morven Gardens and along the north western periphery of the development site.

Given the low density character of the existing development on No's 1-8 Nield Avenue, and the proposal in Draft Lane Cove LEP 2007 to rezone the land to R4 High Density Residential affection of outlook across the subject site from units to the north and east is largely inevitable.

4.3.2.3 Details of proposed landscaping and open space

The proposed landscape concept is described in the landscape design report in **Appendix 4** and indicated on the landscape plans in **Appendix 9**. Over half the site will be landscaped (52.6%), of which all but a small part will be available for deep soil planting (ie 50.3% of the total site area). When the landscaping on structure (including roof planting) is taken into account, the landscaped area increases to 59% of the site.

The vegetated character of the site, whilst modified from its existing form will remain, but in form. The gully, however, on the western part of the site will be retained and enhanced, weeds removed, significant trees retained, new trees planted, and access pathways installed. Retention and enhancement of the western gully on the site results in a comprehensive landscape presentation to the properties to the west, as is evident from the western landscape elevation on Drawing LA 04C in **Appendix 9**.

4.3.3 Amenity impacts on neighbours

4.3.3.1 Visual impact, privacy and overshadowing

Visual impacts

Visual impacts will arise in the form of obstructed views (see above) and affectation of outlook. An outlook presently characterised by dwellings in a treed setting will be changed to one where the building form is more dominant, but the developed site will, however, still have a comprehensively landscaped context (see landscape plans in **Appendix 9**).

Given the proposed R4 High Density Residential zoning which the Lane Cove Council proposes to introduce for the subject site, such a transformation is not only anticipated but largely inevitable.

The visual impacts associated with the proposal will be mitigated by the comprehensive landscaping proposed, which includes the retention of some of the existing trees. Furthermore, materials and colours are to be selected for the new building to ensure that it is compatible with the landscape setting. A materials/finishes board is to be submitted under separate cover to the Department.

Privacy

The proposed hospital will not result in unreasonable or significant privacy impacts for the following reasons:-

- to the north and west the proposed building is separated from adjoining buildings by Morven Gardens;
- the northern and southern wings are setback a minimum of 11.44 metres and 14.93 metres respectively from the western site boundary;
- the northern wing is setback around 27 metres from the dwelling on No 6 Morven Gardens and around 16 metres from the swimming pool of that property – the setback will be comprehensively landscaped, the dining rooms at the western end of the northern wing will have planter boxes and screen walls along their western edges and the roof terrace will have a wide planter along its western edge;
- the northern wing is a minimum distance of around 23 metres from the nearest dwelling in the low-lying subdivision to the west (ie No. 17G Bellevue Avenue);
- the southern wing is setback a minimum of 9.175 metres from the southern site boundary;
- the southern wing is a minimum distance of around 16 metres from No the dwelling on 17G Bellevue Avenue;
- dining rooms in the western end of the southern wing have planter boxes on their western edge whist the roof terrace also has such a planter box.

- setbacks from the northern site boundary are varied, with the minimum setback being 5.925 metres at the eastern corner of the building, opposite which the neighbouring building is itself setback around 8 metres from the common boundary, resulting in a building separation of over 13 metres;

- the northern corner of the new hospital is setback from the eastern site boundary by a minimum of around 14 metres, providing good separation from the rear of No's 206-210 Pacific Highway;

- the central part of the hospital building (where there is a dining room on each of the three upper levels) is setback 15.39 metres from the eastern site boundary, providing good separation from the rear of No's 200-204 Pacific Highway. (The dining room will have an outlook to the north-west and will be screened when viewed from the east.);

- balcony balustrades will comprise translucent glazing;

- planter boxes will be provided to some balconies (to add interest to facades and to provide added privacy) and to the large terraces within the southern wing; and

- comprehensive screen planting will be provided around the building.

Overshadowing

The terrain, surrounding buildings and proposed hospital have been three-dimensionally modelled and the virtual model then photographed from two camera angles at 9.00am, 10.00am, 11.00am, noon, 1.00pm, 2.00pm and 3.00pm in mid-winter to illustrate how shadow from the proposal will fall onto surrounding properties at the most affected time of year. Project application drawings DA 5.01 and 5.02 in **Appendix 8** contain the shadow models. Window positions are identified on the models.

(Conventional two-dimensional diagrams have not been provided as they are less illustrative of the overshadowing impacts associated with the proposed building.)

The shadow study illustrates that in mid-winter, shadows from the proposed development will impact on north-west facing windows in the two apartment buildings to the south which together comprise No's 7-15 Bellevue Avenue only after around 12.30pm in the case of the westernmost of the two buildings and after around 1.15pm in the case of the easternmost building. At 1.00pm, only the lower level north-west facing windows in the westernmost building are impacted to any significant degree whilst at 2.00pm, the window on the lowest level nearest to the south-western corner of the building is no longer affected.

In the case of the easternmost building, the north-west elevation starts to be affected by shadow from the proposal around 1.00pm, although at 2.00pm the upper level is unaffected by shadow whilst the level below the top level is only partially affected by shadow. At 3.00pm only the windows at the western corner of the north-western elevation on the upper two levels are free from shadow.

Thus, in mid-winter, the north-western elevation of No's 7-15 Bellevue Avenue is not impacted extensively by the proposed building.

In relation to the closest dwelling to the western site boundary (No. 17G Bellevue Avenue) it is affected by shadow from the proposal's northern wing between 9.00am and around 11.30am, although for part of that period (around 10.00am) much of the dwelling is in sun and at 11.00am the shadow affectation is generally confined to the building's northern corner section. After midday, No. 17G is no longer affected by shadow from the proposal.

As for the other dwellings within the battleaxe subdivision known as No's 17A-G Bellevue Avenue, impacts are confined to the early-morning period and then only in relation to No's 17 and 17A. By around 10.30am in mid-winter, these two affected dwellings are free from shadow from the proposal.

4.3.3.2 Public access around the site

Whilst there is presently no public access around the site at the present time (access is primarily limited to Nield Avenue), there is a public pathway which links the cul-de-sac of Nield Avenue with the pathway along Morven Gardens. This pathway is to be integrated into the site. As the pathway only serves the existing residents of the 10 properties at the end of Nield Avenue, removal of the pathway will have no adverse impact on public movement throughout the locality. Lane Cove Council has initiated the road closure process of the western end of Nield Avenue over the pathway (see **Appendix 29**).

With the proposed development, the site remains primarily accessible from Nield Avenue. There is no access to or from the site from the west or south.

As part of the proposed development, a pedestrian link is proposed from the ground level of the new hospital to Morven Gardens, where it will link with a pathway leading through to Waterbrook at Greenwich. This pathway will only be accessible to staff and visitors at the hospital. It will not be a public thoroughfare. The pedestrian link will necessitate construction of an pathway linking the ground level of the proposed hospital (at RL 92) to Morven Gardens. (See Drawing DA-2.04 in **Appendix 8**.) The pathway will span the northern setback (ie it will bridge the landscaped space below and adjacent to it).

4.3.4 Transport, traffic and access

- The RTA Guidelines for Traffic Generating Development
- Existing traffic conditions, road network and road capacity in vicinity of the site
- Proposed internal road and access arrangements
- Measures to promote public transport usage
- Pedestrian and bicycle linkages
- Proposed means to manage construction traffic and parking
- Proposed employee, visiting doctors and visitor car parking arrangements

- Proposed emergency and service vehicle arrangements

Each of the above matters is addressed in the traffic and parking implications report provided in **Appendix 18**.

The traffic report in Appendix 18 states:-

> *"The operation of the proposed development (on completion) will not present any adverse traffic, parking or access implications. Thus, there are no remedial measures required to offset or overcome needs consequential to the development."*

The assessment concludes:-

> *"The traffic, transport and parking assessment provided In this report indicates that the development will:*
>
> * *not present any unsatisfactory traffic capacity, safety or environmental related implications,*
>
> * *incorporate a suitable and appropriate parking provision for the nature of the development proposed,*
>
> * *incorporate suitable vehicle access, internal circulation and servicing arrangements,*
>
> * *make appropriate provision for pedestrians and access to public transport services."*

In relation to measures to promote public transport usage, the traffic report notes (at page 22) that:-

> *"It is desirable that information and encouragement be given to the use of the available public transport services whilst acknowledging the special provisions associated with a hospital facility (eg night shift, early start, aged visitors etc). To this end however, a workplace travel plan will be developed and maintained."*

This is reflected in the Draft Statement of Commitments.

4.3.5 Biodiversity / tree loss

4.3.5.1 Impact of the development on existing native flora and fauna and their habitats

The development's impacts on existing native flora and fauna and their habitats are the subject of a flora and fauna assessment provided in **Appendix 16**. The assessment identifies the flora species on the site and fauna species residing on or using the site as part of their foraging range. Specific assessment of the site has also been undertaken to identify habitats of threatened species, populations and ecological communities listed in the schedules of the *Threatened Species Conservation Act (NSW) 1995*.

Despite the site's modified habitats, a detailed flora survey was carried out over the site and a floristic assessment undertaken to categorise the community that occurred on the site prior to its original development. The report finds that the proposed redevelopment of the site will involve further modification of the existing urban habitats and the removal of several indigenous trees, along with planted, native and exotic trees and dense thickets of noxious and environmental weeds. The report states (at page 49):-

> *"Whilst the site's habitats have been modified, the remnant trees are considered to be components of what was once the Sydney Turpentine Ironbark Forest and do provide some ecological contribution to conservation of the community within the core habitat areas off site. To ensure that there is no net loss,* [of] *this ecological contribution, compensatory measures (refer 6.6) will need to be implemented."*

The Sydney Turpentine Ironbark Forest Ecological Community is one of three threatened species, populations and communities which are considered in the flora and fauna assessment, the other two being the Eastern Bent-wing Bat (*Miniopterus schreibersii*) and the Grey-headed Flying Fox (*Pteropus poliocephalus*). The flora and fauna assessment concludes:-

> *"In considering the nature and scope of the proposed development (refer section 6.4) the proposed redevelopment of the site will not have a significant effect on threatened species, populations and ecological communities and will continue to provide some contribution to the local urban ecology provided that the compensatory measures (refer 6.6) are implemented."*

The identified compensatory measures are noted below in Section 4.3.5.2.

4.3.5.2 Means to mitigate the loss of existing flora and its contribution to the visual character of the area

At page 41, the flora and fauna assessment in Appendix 16 states:-

> *"The mitigating measures to minimise the impact on the local ecology as a result of the proposed redevelopment of the site include:*
>
> - *retaining the Urban Gully area landform and with landscaping incorporating a high percentage of indigenous species;*
> - *removal of the noxious and environmental weed species such as Wandering Jew (Tradescantia fluminensis), Madeira Vine (Anredera cordifolia) and the Camphor Laurel (Cinnamomum camphora);*
> - *retention of 11 indigenous trees (Tree No's 45, 47, 48, 55, 56, 66,72, 74, 93, 123 & 125);*
> - *retention of 23 planted non-indigenous native trees."*

Also at page 41, the flora and fauna assessment states:-

"To compensate for the loss of indigenous tree species, compensatory replanting using species consistent with those found in the Turpentine Ironbark Forest or within the local area, will need to be carried out to maintain or improve ecological attributes of the site. As the site is currently developed within an urban environment, compensatory ratios can be in the lower end of the scale and it is recommended that a 1:2 ratio be adopted for the tree removal/ revegetation.

To compensate for the removal of 7 indigenous trees the proposed development should include on the landscape plan a minimum of:

- *14 indigenous tree species should be included on the landscape plan."*

The flora and fauna assessment then sets out that the species to be used for this compensatory planting should be selected from the table provided in the report and must include a minimum of eight Sydney Blue Gum (*Eucalyptus saligna*) or Blue Gum/Bangalay cross (*Eucalyptus saligna x Botryoides*).

The landscape plan submitted with this project application shows considerable additional new planting which will contribute to the visual character of the area. The availability of around half of the site area for landscape planting will ensure that the site continues to contribute to the visual character of the area.

4.3.5.3 Assessment of the significance of the trees to be removed

The Aboricultural assessment in **Appendix 7** examines the significance of the trees proposed to be removed. (All of the trees have been numbered for the purposes of the assessment and identified on the plans.) The Aboricultural assessment states:-

"Of the 89 trees required to be removed on the site:-

- *14 trees are considered to be structurally poor and unstable (Tree No's 1, 19, 34, 39, 43, 46, 53, 67, 70, 73, 84, 89, 113 and 142);*
- *0 trees are declared noxious weeds;*
- *5 trees are considered to be pest species and can currently be removed being exempt from protection under Lane Cove Council's Tree Preservation Order (Tree No's 10, 118, 119, 120 and 135);*
- *15 trees are in poor condition of which 12 are of low landscape significance and 3 are of moderate landscape significance (Tree No's 2, 7, 13, 18, 22, 36, 41, 81, 82, 83, 105, 108, 114, 115 and 134);*
- *23 trees are in fair-good condition and are considered to be of low landscape significance;*
- *24 trees are in fair-good condition and are considered to be of moderate landscape significance;*

- *7 trees are in fair-good condition and are considered to be of high landscape significance (Tree No's 4, 28, 57, 87, 116, 117 and 130);*

- *1 tree is in fair-good condition and is considered to be prominent in the broader landscape (Tree No. 54)."*

The Aboricultural assessment further states:-

> *"Whilst the majority of the trees on the site are to be removed, consideration has been given to the condition and landscape significance.*
>
> *The proposed development has been designed so as not to impact on the trees on adjoining allotments with adequate development setbacks provided for trees, particularly those that are prominent in the broader landscape.*
>
> *On the site the proposed development will require the removal of a number of trees of high, moderate and low landscape significance and to compensate for the removal of trees, tree replenishment has been incorporated into the landscape plan (Taylor Brammer, 2008)."*

The flora and fauna assessment in **Appendix 16** notes that the proposal will result in the removal of 7 indigenous trees, some of which appear to be planted specimens, and the retention of 11 indigenous trees. The assessment states:-

> *"To ensure that there is no net loss of the ecological contribution provided by the indigenous trees on the site, compensatory measures are required."*

4.3.6 Planning agreements and/or developer contributions

4.3.6.1 The scope of any planning agreement and/or developer contributions between the proponent and the Lane Cove Council

There is no planning agreement between the Proponent and Lane Cove Council. No such agreement has been suggested by Lane Cove Council.

In relation to Lane Cove Section 94 Contributions Plan no contributions are required for a development comprising a hospital. This situation is verified in the letter from Lane Cove Council to the Proponent dated 3 April 2008 provided in **Appendix 27**.

4.3.7 Construction and operational impacts

4.3.7.1 Impacts upon or created by contamination, geotechnical issues, noise and vibration, stormwater and surface water, air quality, waste management and air pollution

Contamination

Contamination is not an issue on this site (see **Appendix 15**).

Geotechnical issues

Geotechnical issues and their implication on construction and in particular excavation are addressed in **Appendix 14** and summarised in Section 3.2.2 of this Environmental Assessment report.

Noise and vibration

Noise and vibration potentially arising out of excavation can be mitigated by the measures identified in both the geotechnical report (see **Appendix 15**) and in the Construction Management Plan (see **Appendix 26**).

Stormwater and surface water

Measures to deal with stormwater and surface water during construction are set out on the cover sheet and sediment and erosion control plan forming part of the set of civil services plans in **Appendix 10**. Once completed, the drainage regime of the site would be as per the drainage concept and hydraulic plans in **Appendix 10**, as described in the reports in **Appendices 5a** and **5b**.

Air quality

Measures to protect air quality during construction are set out in the Construction Management Plan (see **Appendix 26**).

Waste management

Contamination waste is addressed in the Construction Management Plan (see **Appendix 26**). Operational waste management is addressed in **Appendix 30**.

4.3.7.2 Details of any cut/fill proposed and whether it is to be imported/exported from the site

Details of the volume of excavated material to be extracted from the site are provided on page 10 of the Construction Management Plan in **Appendix 26**. Around 15,500m^3 of excavated material will be removed from the site.

Where possible, existing top soil will be stockpiled and re-used in the final landscape plan.

4.3.8 ESD measures

4.3.8.1 Details of the development's proposed ESD measures including, NatHERS ratings, BASIX, water sensitive urban design measures, energy efficiency, and recycling and waste disposal

The proposed development is the subject of an Energy Efficiency Assessment prepared by Vipac Engineers and Scientists (see **Appendix 20**). The Energy Efficiency Assessment notes that as the proposed development does not contain any residential dwellings, NatHERS ratings and BASIX do not apply.

The assessment therefore focuses on the ESD measures to be adopted such as water conservation, energy efficiency, recycling and waste disposal. The executive summary of the Energy Efficiency Assessment states as follows:-

> *"The building in general will have the ability to stabilise changing thermal conditions and reduce diurnal (day-night) temperature changes if attention is paid to design details at the wall interfaces.*
>
> *The developer installed the following to improve the energy efficiency and reduce the green house gas emissions:*
>
> - *Use of roof skylights for natural lighting.*
> - *Use of light colouring for the internal walls to maximise the use of natural daylight.*
> - *Rainwater harvesting tank for landscape irrigations.*
> - *Minimum R1.3 External Wall insulation.*
> - *Minimum R2.65 Roof/Ceiling Insulation.*
>
> *The following additional recommendations have been made to improve significantly the sustainability within the proposed development:*
>
> - *Equipment with automatic power off.*
> - *Low E glazing for the curtain wall glazing to the east and west to help reduce the solar heat gains.*
> - *Use of air-conditioning systems with high coefficient of performance.*
> - *Negotiating power agreements with local providers.*
>
> *Recommendations regarding lighting, appliances, internal finishes and waste etc. have been made within the body of the report."*

These recommendations will be adopted by the Proponent.

4.3.9 Services

4.3.9.1 Capacity of water, sewer, stormwater, gas, power and telecommunications infrastructure to service the project

The availability of stormwater drainage, sewer drainage, water and gas services are addressed in the hydraulic services report in **Appendix 5a**.

A Section 73 application is to be made to Sydney Water Corporation. Sydney Water has provided its services information for the proposal and the LHO Group (ie the author of the report in **Appendix 5a**) has confirmed the availability of water and drainage services and

their capacity to service the site. In addition, Sydney Water is to advise of capital works contribution charges that will apply to the development of the site. This will also be set out in Sydney Water's Section 73 Notice of Requirements.

The Proponent constructed a new water main (in Morven Gardens) for Waterbrook at Greenwich. It was constructed with sufficient capacity to accommodate the proposed redevelopment of the subject site.

The availability of capacity in electricity supply to the site has been confirmed by Energy Australia.

4.3.9.2 Any upgrading works to infrastructure necessary to service the development and contributions applicable under any adopted contributions plans

Other than any required upgrade/amplification of utility services to the site (see above), no upgrading works to infrastructure is necessary to service the development. There are no relevant contributions plans applicable to the proposed development.

4.3.10 Land to be acquired from Lane Cove Council

4.3.10.1 Confirmation that Lane Cove Council has sold or is finalising the sale of the Nield Avenue road reserve and the pedestrian pathway leading to Morven Gardens to form part of the development site and any conditions associated with the sale

Provided in **Appendix 29** is a letter from Lane Cove Council to the Proponent setting out details of the Council's resolution in relation to the closure of part of Nield Avenue and the pathway leading through to Morven Gardens and the sale of the land to the Proponent. Further discussions are continuing in this regard.

4.4 Part D – Draft Statement of Commitments

4.4.1 Proposed mitigation and management of residual impacts

The Proponent proposes to mitigate and manage residual impacts with a view to ensuring that any such impacts are minimised. Residual impacts are to be effectively managed and mitigated by:-

- effectively managing the demolition and excavation process to limit amenity impacts on neighbours;
- protecting the trees to be retained;
- limiting erosion and sedimentation;
- controlling and managing the construction process;
- implementing comprehensive landscaping and rehabilitation/restoration of degraded landscape areas outside of the building footprint;
- managing stormwater flows;
- providing adequate car parking and promoting public transport use;
- implementing noise amelioration measures to any external plant where required; and
- operating the new hospital having regard to the sensitivities of neighbouring properties.

The commitments which the Proponent makes to achieve the above outcomes are set out in the following Statement of Commitments.

4.4.2 Statement of Commitments detailing measures for environmental management and mitigation measures and monitoring for the project

Introduction

Under Section 75F(6) of the EP&A Act, a Proponent may be required to include a Statement of Commitments within the Environmental Assessment, outlining the measures the Proponent is prepared to make in respect of environmental management and mitigation at the site. The Proponent's draft Statement of Commitments for the project specifies how the project will be implemented and managed to minimise potential impacts both during construction and operation.

A. General

A1. The development will be undertaken generally in accordance with the Environmental Assessment report prepared by BBC Consulting Planners, including accompanying appendices.

A2. The development will be undertaken generally in accordance with the architectural, landscape, and civil services drawings submitted with the Environmental Assessment report, while allowing for reasonable design development to occur.

A3. The Proponent is committed to the principles of sustainability as defined in the *Environmental Planning and Assessment Act, 1979*.

A4. The Proponent will implement the Communication Plan submitted as part of the Environmental Assessment report.

B. Further Approvals

B1. The Proponent will obtain all necessary approvals and licences required by State and Commonwealth legislation in implementing and operating the project.

B2. The Proponent will obtain a Construction Certificate prior to the implementation of building works, other than demolition and preparatory site works (including the removal of trees and other site vegetation).

C. Demolition, Excavation and Construction Management

C1. All demolition, excavation and construction work will be undertaken in accordance with the Construction Management Plan submitted with the Environmental Assessment report.

C2. The Proponent will put in place environmental controls to mitigate the effects of noise, dust, vibration and erosion during demolition, excavation and construction, including the implementation of:-

- excavation methodologies consistent with the geotechnical report submitted with the Environmental Assessment report and the mitigative measures for noise and vibration set out therein;
- noise mitigation on construction equipment where necessary;
- management of dust by use of screens and/or hose down; and
- implementation of erosion and sediment control devices as shown in the set of civil services plans submitted with the Environmental Assessment report.

C3. The building contractor will establish a Safety Plan before work commences on-site detailing safe work methods and procedures to be followed on-site and to ensure compliance with OH&S and statutory requirements, such plan to address safety risks during demolition, excavation and construction activity, including:-

- stability of adjacent structures;
- excavation support;
- falls from heights;

- protection of the public;
- traffic controls around the perimeter of the site; and
- working with high voltage electrical supply.

C4. Construction activities (including demolition and excavation) will only occur between 7.00am and 6.00pm, Monday to Friday, and between 8.00am and 1.00pm Saturdays, unless further acoustic analysis of specific noise-producing works has been carried out and endorsed by a qualified acoustic engineer.

C5. The building contractor will be required to arrange sorting and recycling of waste materials to ensure maximum recycling is achieved, in accordance with the Construction Management Plan..

C6. Prior to the commencement of demolition and excavation, a Hazardous Materials Assessment will be undertaken on all structures. Any hazardous materials identified will be disposed of in accordance with statutory and EPA requirements and guidelines.

C7. The Proponent will ensure construction traffic and parking requirements during construction activities are as per the traffic and parking assessment report submitted with the Environmental Assessment report, which include:-

- provision of a 'platform' at the Nield Avenue frontage to accommodate loading and vehicle turn-around at the end of Nield Avenue;
- remote queuing of trucks during the excavation process and concrete pours;
- traffic controllers and VMS signs at the Pacific Highway/Nield Avenue intersection during the excavation activities and concrete pours; and
- provision of worker parking on-site whenever possible.

C8. The Proponent will carry out all construction activities in accordance with relevant environmental protection legislation.

C9. The Proponent will prepare and implement further detailed construction management plan in conjunction with the contractor and submit to the Principal Certifying Authority prior to commencing construction works.

C10. The Proponent will instigate environmental management and mitigation measures during construction activities as per the CMP.

D. <u>Tree Protection</u>

D1. Designed tree protection measure and general tree protection measures (as appropriate) will be implemented for the trees identified as being retained in the aboricultural report submitted with the Environmental Assessment report.

D2. Eleven (11) indigenous trees and twenty-three (23) planted non-indigenous native trees will be retained as identified in Section 6.5 of the flora and fauna report submitted with the Environmental Assessment report.

E. Biodiversity/Tree Loss

E1. To compensate for the loss of indigenous trees from the site, the Proponent will plant at least 14 indigenous tree species as part of the implementation of the landscape plan.

E2. The species to be used for the compensatory planting referred to in E1 above should be selected from the table on page 41 of the flora and fauna assessment and will include a minimum of eight (8) Sydney Blue Gum or Blue Gum/Bangalay Cross species.

F. Promotion of public transport use, walking and cycling

F1. A workplace travel plan will be developed and maintained and disseminated to staff at the hospital.

F2. On-site provision will be made for staff bicycle storage.

G. Acoustic considerations

G1. Noise and vibration during demolition, excavation and construction will be mitigated in accordance with the recommendations and guidelines in the geotechnical report, Construction Management Plan and acoustic report submitted with the Environmental Assessment report.

G2. The building (which is Class 9a under the BCA) will meet the acoustic requirements for a Class 9c building.

G3. Once plant and equipment has been selected for the new hospital, a separate acoustic assessment will be carried out to ensure that noise emissions are controlled, and compliance achieved with the criteria specified in the DECC Industrial Noise Policy guidelines.

H. ESD

H1. The Proponent will implement the recommendations in the Energy Efficiency Assessment submitted with the Environmental Assessment report.

H2. The Proponent will consider the following measures to improve energy efficiency and reduce greenhouse gas emissions:-

- Use of roof skylights for natural lighting;
- Use of light colouring for the internal walls to maximise the use of natural daylight;
- Rainwater harvesting tank for landscape irrigations;
- Minimum R1.3 External Wall insulation;

- Minimum R2.65 Roof/Ceiling insulation;
- Use of equipment with automatic power off;
- Use of low E glazing for the curtain wall glazing to the east and west to help reduce the solar heat gains;
- Use of air-conditioning systems with high coefficient of performance; and
- Negotiating power agreements with local providers.

I. BCA and Fire Engineering

I1. The Proponent will develop a fire engineered Alternative Solution prior to issuance of the main Construction Certificate for departures from the Deemed-to-Satisfy (DTS) provisions of the Building Code of Australia (BCA) related to:-

- atrium construction;
- travel distances;
- horizontal exits; and
- non-required, non-fire-isolated stairways.

I2. The Proponent will give consideration in the preparation of the Alternative Solution to the Fire Safety Strategy documented in Stephen Grubits & Associates report 2006/400 R2.0.

J. Communication

J1. The Proponent will implement the Communication Plan in accordance with the calendar of events set out therein.

K. Health Care Services

K1. The proponent will comply with all relevant regulatory requirements for the design and construction of the proposed hospital.

K2 The proponent will comply with all relevant regulatory requirements for the on-going operations of the proposed hospital.

K3 The proponent will obtain all necessary licenses and compliance certificates necessary for each of the proposed health care functions prior to providing those health care functions within the proposed facility.

5. CONSULTATION

The Director-General's Environmental Assessment Requirements state that during the preparation of the Environmental Assessment, the Proponent should undertake an appropriate level of consultation with the relevant Local or State Government authorities, service providers, community groups and other stakeholders. The DGEAR's state that in particular, the Proponent should consult with:-

- Lane Cove Council;
- NSW Health (including Private Health Care Branch);
- NSW Roads and Traffic Authority;
- NSW Department of Environment and Climate Change;
- Metropolitan Aboriginal Land Council; and
- all utility providers.

Lane Cove Council is highly familiar with the proposed site and the redevelopment proposal now proposed. The Council has implemented a road closure process in relation to the western end of Nield Avenue and the pathway which connects through from Nield Avenue through to Morven Gardens. The letter from Council to the Proponent dated 3 April 2008 (see **Appendix 27**) states that Council reserves its option to undertake a detailed review of the proposal upon submission of this Environmental Assessment report to the Department of Planning and subsequent notification. The Proponent will continue to liaise with Lane Cove Council throughout the period that the Environmental Assessment report is being considered by the Department of Planning.

NSW Health has been consulted through meeting with the Proponent and by letter dated 12 September 2008 (see **Appendix 12a**). A response to the consultation from NSW Health is provided in **Appendix 12b**.

The traffic consultant who has undertaken the assessment of traffic and parking implications, Transport and Traffic Planning Associates, wrote to the RTA on 11 March 2008, attaching a traffic report prepared for the project, asking for a meeting to be arranged to discuss any issues which the Authority may have. Page 20 of the traffic report notes the consultation with the RTA and states that the requirements of the RTA have been incorporated into the traffic report.

No separate consultation has been undertaken with the Department of Environment and Climate Change ("DECC"). However, all of the key issues raised by DECC in its letter to the Department dated 31 January 2008 have been addressed in the Environmental Assessment report.

Australian Museum Business Services ("AMBS") undertook the Aboriginal Cultural Heritage Assessment. AMBS contacted the Metropolitan Local Aboriginal Land Council ("MLALC") and a representative was invited to attend the preliminary site visit. The MLALC nominated a

representative to attend, however the representative was unable to attend as planned. Telephone discussions with the MLALC representative indicated that the MLALC did not have any issues of Aboriginal cultural heritage significance or sensitivity for the area. A copy of the Aboriginal Cultural Heritage Assessment was sent to MLALC for review and comment. A letter was received from MLALC on 26 August 2008 agreeing with the results and recommendations of the assessment (refer attachment to report at **Appendix 17**).

Utility providers (Energy Australia, Alinta, and Sydney Water) have each been consulted in relation to the road closure process and have nominated easement requirements in relation to their affected assets within the road reserve.

Details of the Proponent's consultants' consultations with Sydney Water and Alinta are set out in the hydraulic services report in **Appendix 5a**.

The Proponent's electrical services consultant, ATA Consulting, has advised Energy Australia of the proposed development and anticipated loads associated with it. Energy Australia has advised that at the time of correspondence, capacity within their network was available. (ATA Consulting acted for the Proponent on Waterbrook at Greenwich as part of which $130,000 was spent to improve the future connectivity for the development now proposed in Nield Avenue by providing LV cabling into Morven Gardens.

The Proponent acknowledges that the consultation undertaken to date is of a preliminary nature and in this regard, the Proponent intends to implement a comprehensive communication plan during the life of the project. A copy of the communication plan is provided in **Appendix 23**. The communication plan presents a strategy and calendar for the staging of community information events to facilitate resident and stakeholder understanding about the proposed hospital during the environmental assessment process.

The communication plan addresses the first stage in the communication process. Subsequent communication events will be designed to coincide with later stages of the project, being at the post-consent and construction commencement stage. The objectives of the communication plan are:-

- to ensure surrounding residents and integral stakeholders fully understand the physical design of the hospital facility, the proposed management model and its relationship to Waterbrook at Greenwich;
- to ensure that providers of health care services in the Northern Sydney Region fully understand the proposed level of operation and service delivery;
- to ensure surrounding residents and interested stakeholders understand the involvement of Lane Cove Council in the proposal with regard to the sale of part of the Nield Avenue public road reserve to the Proponent as part of this project;
- to ensure surrounding residents and integral stakeholders are provided with the opportunity to express their views about the proposal; and
- to establish and maintain open channels of communication between surrounding residents, and integral stakeholders that will remain in place for the development assessment and construction process.

The communication plan identifies target audiences, communication lines, and a communication methodology.

The communication plan anticipates the establishment of a Free Call 1800 number, project PO box, email address, project website, and preparation of community consultation newsletters, media advertising and a stakeholder database. These activities will complement the Department's notification of the project.

Furthermore, as part of the communication plan, there will be a community information day and a pre-construction community meeting, both of which will seek to ensure that the community is fully informed about the project.