

***MODIFICATION REQUEST:
Royal North Shore Hospital
Acute Hospital and Community Health
Facility (MP 08_0172 MOD 3)***

Modification to Acute Hospital Building:

- Height Increase
- Addition of Helipad



Director-General's
Environmental Assessment Report
Section 75W of the
Environmental Planning and Assessment Act 1979

January 2011

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EXECUTIVE SUMMARY

This report is an assessment of an application by Thiess Pty Ltd (the Proponent) seeking modification to the Royal North Shore Hospital Acute Hospital and Community Health Facility Project Approval (MP08_0172) to allow for a height increase and inclusion of a Helipad on the Acute Hospital Building.

Specifically, the proposed modification comprises the inclusion of a helipad on the Acute Hospital Building (currently under construction) which is to be located at level 11 in the south east corner. Additionally, the modification includes an increase in height of the Acute Hospital Building by 900mm to accommodate services between the ceiling and floors of levels 3, 4 & 5.

The Environmental Assessment (EA) for the modification was exhibited from the 22 September 2010 until 22 October 2010. The Department received two (2) submissions from Public Authorities, which included Willoughby City Council and Department of Environment Climate Change and Water, and three (3) submissions from the general public. Issues raised in submissions included noise amenity impacts, impacts of lighting on nearby residential development, wind impacts, air quality impacts from helicopter exhaust, and the need for a second helipad within Royal North Shore Hospital.

On 3 December 2010, the proponent submitted a response to submissions. No changes were made to the proposal.

The Department has assessed the merits of the proposed modification, and consider the key issues associated with the project to be flight path, noise, air quality, visual impact, lighting and public interest. These issues have been assessed in detail and the Department is satisfied that they can be adequately mitigated and managed.

The Department considers that the proposed modification should be approved subject to conditions.

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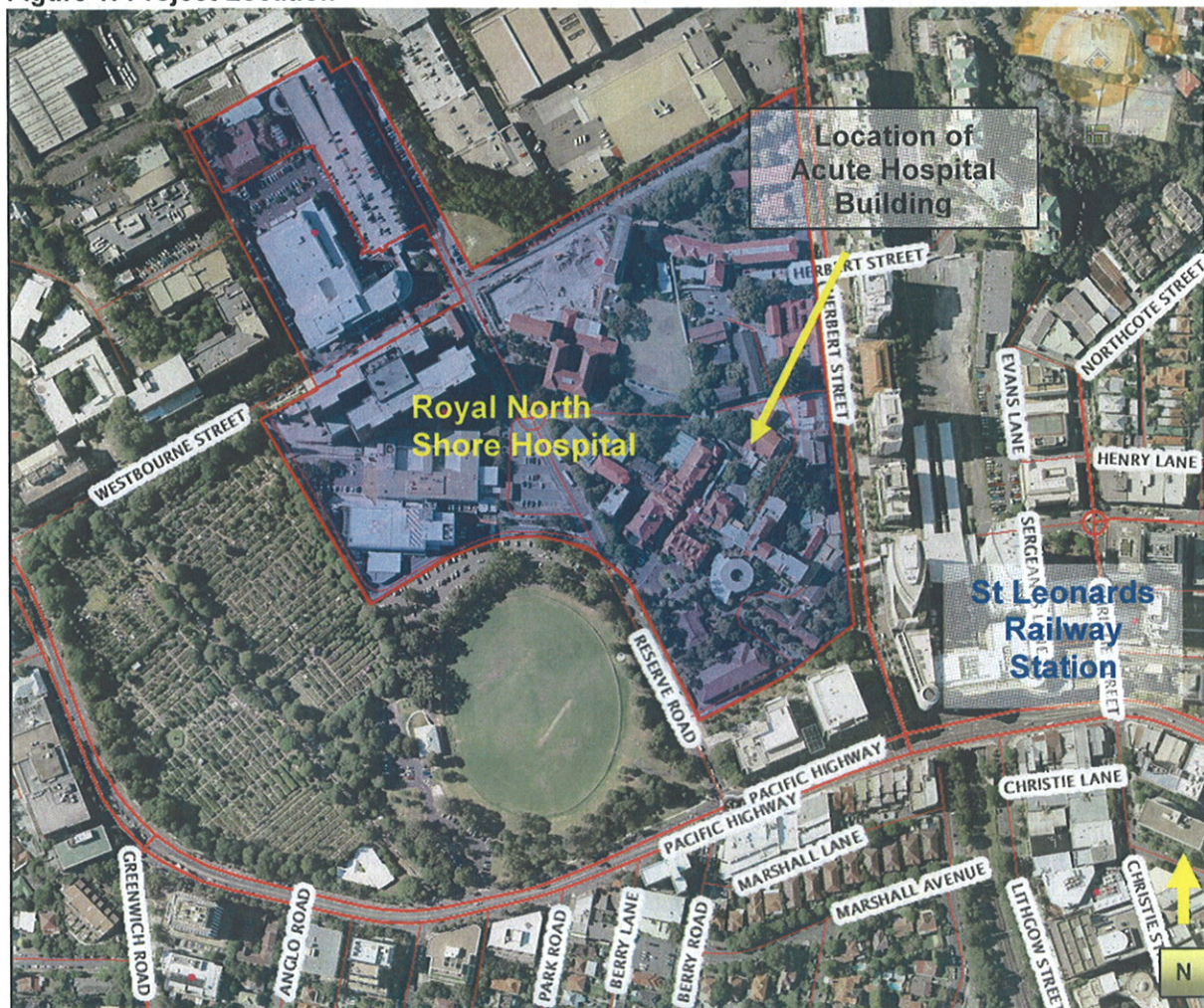
1. BACKGROUND

Royal North Shore Hospital has been the subject of on-going redevelopment. On 26 September 2006, the then Minister for Planning declared the Royal North Shore Hospital redevelopment a Critical Infrastructure Project. On 13 April 2007, a Concept Plan was subsequently approved under MP06_0051, providing for the consolidation of the outdated piecemeal buildings into 8 integrated and more efficient buildings with an increase in the usable hospital floor space.

On 19 June 2009, the then Minister of Planning approved the Acute Hospital and Community Health Facility (AHCHF) (MP08_0172), which comprised the staged demolition of buildings onsite, and construction of the Acute Hospital Building, Community Health Building, and a multistorey car park.

The project location is shown in Figure 1.

Figure 1: Project Location



The AHCHF project approval has previously been modified by:

- Mod 1 – (MP08_0172 (MOD 1)) Approved on 23 March 2010, which involved minor changes to the design and layout of the Community Health Building; and
- Mod 2 – (MP08_0172 (MOD 2)) Approved on 3 August 2010, which involved the demolition of Building 19 'Mortuary' and construction of a car park.

2. PROPOSED MODIFICATION

2.1 Modification Description

The modification comprises:

- the inclusion of a helipad on the Acute Hospital Building (currently under construction) which is to be located at level 11 in the south east corner.
- an increase in height of the Acute Hospital Building by 900mm to accommodate services between the ceiling and floors of levels 3, 4 and 5.

An existing helipad is located on the Douglas Building and is proposed to be retained, meaning that the RNSH site will have two functioning helipads.

The proposed modification is generally consistent with the provisions of the Concept Plan, inclusive of height controls. The location of the existing helipad and proposed new helipad is shown in Figures 2 and 3.

Figure 2: Location of modification works

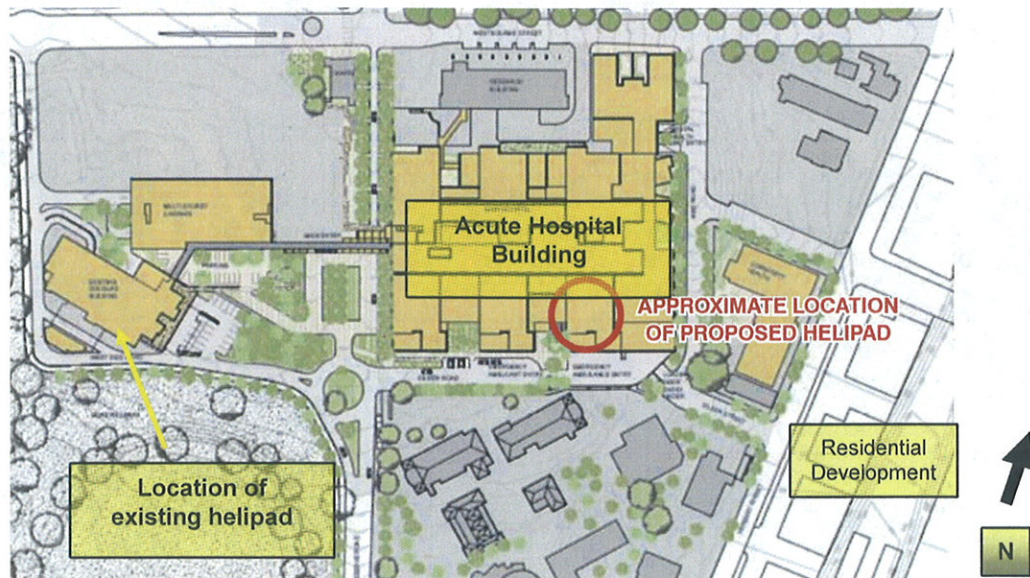
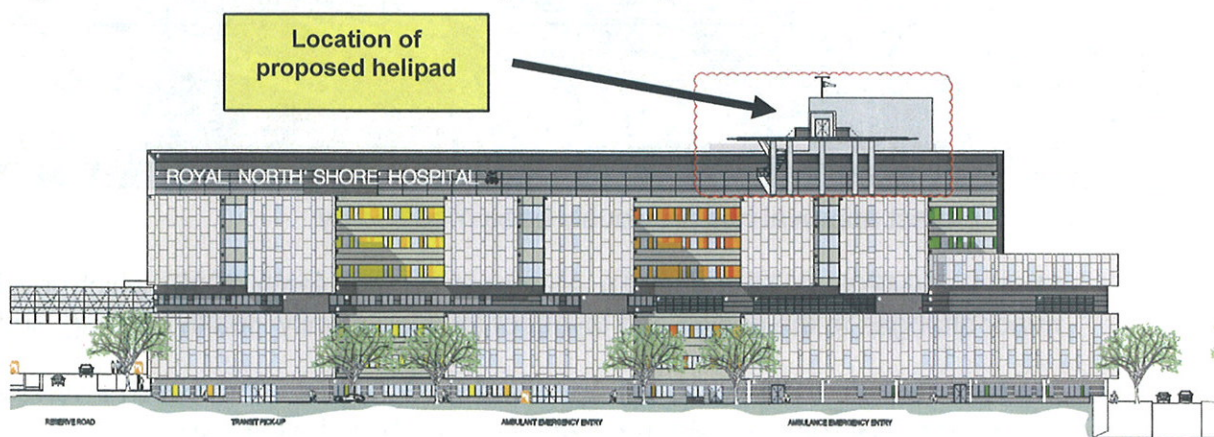


Figure 3: South Elevation of Acute Hospital Building



3. STATUTORY CONTEXT

3.1 Modification of the Minister's Approval

Section 75W(2) of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) provides that a proponent may request the Minister to modify the Minister's approval of a project. The Minister's approval of a modification is not required if the project as modified would be consistent with the original approval. As the proposed modification seeks to include a helipad and increase height of a building within the Project Approval, the modification will require the Minister's approval.

Section 75(3) of the EP&A Act provides the Director-General with scope to issue Environmental Assessment Requirements (DGRs) that must be complied with before the matter will be considered by the Minister. Environmental Assessment Requirements were not issued for this modification as the Proponent had addressed the key issues in the modification request.

3.2 Delegated Authority

On 25 January 2010, the Minister delegated his powers and functions under section 75W of the EP&A Act to Directors in the Major Projects Assessment Division where there are less than 10 public submissions (not including submissions from public authorities) in the nature of objections in respect of the modification request.

As three (3) public submissions were received (see section 4), the Director may determine the modification request under delegated authority.

4. CONSULTATION AND SUBMISSIONS

4.1 Consultation Prior to Exhibition

Prior to the exhibition, the Department referred the modification EA to the Civil Aviation Safety Authority (CASA) for comment. CASA raised no objection to the proposal, however they provided a copy of the *Guideline for the establishment and use of helicopter landing sites (CAAP 92-2 (1))* (guideline) for consideration during the assessment of the proposal. The guideline has been considered within the Aviation Report accompanying the EA.

4.2 Exhibition

In accordance with Section 75X(2)(f) of the EP&A Act and Clause 8G of the EP&A Regulation 2000, the modification request was made publicly available to the on the Department's Website.

The Department also:

- publicly exhibited the modification EA from 22 September 2010 until 22 October 2010 (30 days):
 - at the Department of Planning Information Centre; and
 - Willoughby City Council.
- notified land owners in the vicinity of the site about the exhibition;
- notified relevant State Government Authorities and Willoughby City Council, North Sydney Council, and Lane Cove Council; and

- advertised the public exhibition in the Sydney Morning Herald, The Daily Telegraph and North Shore Times on Wednesday 22 September 2010.

The Department received five (5) submissions during the exhibition of the modification request – two (2) submissions from public authorities and three (3) submissions from the general public.

A summary of the issues raised in submissions is provided below.

4.3 Public Authority Submissions

Neither of the two (2) submissions received from public authorities objected to the proposal, however both provided recommendations.

Willoughby City Council

Willoughby City Council has raised no objection to the proposal, however provided a number of requests as summarised below:

- The Helipad should be located further west and north away from its current location;
- If the above request is not adopted, then appropriate sound attenuation barriers must be introduced to the design of the helipad on the east and south sides so that noise is minimised, and the appearance of the barriers are designed so they do not contribute to the bulk and scale of the Acute Hospital building when viewed from Herbert Street;
- Helicopter movements are to stay within the 'Preferred Helicopter Approach Path' as far as practically and safely possible, and use of the non preferred flight path be kept to an absolute minimum. Council request that a condition be placed on any approval requiring the flight path to comply with the information submitted with this modification;
- The flight path and operation of the helipad be subject to a review after 12 months of operation, including notification of residence in Herbert Street, to identify if any issues have arisen and what mitigation measures are to be put in place;
- That the lighting of the helipad not be permanent (24 hours a day, seven days a week) but only on an as required basis, to be turned on when required and turned off when not required. Further, a lighting plan, that would also contain the above operational details, be provided for Council's review and that a condition be placed on any approval requiring adherence to this plan; and
- An assessment be carried out by an appropriate expert in regards to the impact on the air quality of the surrounding hospital pedestrian areas and the neighbouring residential flat buildings in Herbert Street and future mixed commercial and residential buildings to be located on the divestment lands from helicopters using the helipad, particularly when stationary, and that this assessment be provided for Council's review.

Department of Environment, Climate Change and Water (DECCW)

DECCW has raised no objection to the proposal, however provided some general comments as summarised below:

- DECCW recommends that the proponent give appropriate consideration to the issue of exhaust air emissions from helicopters entering the building through

various air intakes located on the building to ensure no adverse impacts on the occupants (patients, staff and visitors) of the building;

- DECCW indicated that the noise impacts from use of the helipad would be minimal provided the recommended preferred flight path was adhered to and the recommended noise amelioration measures are implemented; and
- DECCW is unable to prepare a comprehensive licence condition in relation to the proposed co-generation plant under the original project application until final proposed designs are completed and recommended amelioration measures are adopted.

4.4 Public Submissions

All three (3) submissions received from the public objected to the proposal. The primary issues raised in public submissions comprised.

- Impact of noise and impact on property values;
- Need for second helipad;
- Impacts from exhaust emissions on air quality for nearby residence; and
- Lack of mitigation measures to address noise and air quality impacts.

4.5 Proponent's Response to Submissions

The Proponent's response to submissions was received on the 3 December 2010 and provided further information on noise impacts associated with the operation of the helipad, air quality impacts from helicopter exhaust emissions, and lighting associated with the helipad. Detailed assessment of the issues and the proponent's response to issues is provided in Section 5 of this report.

5. ASSESSMENT

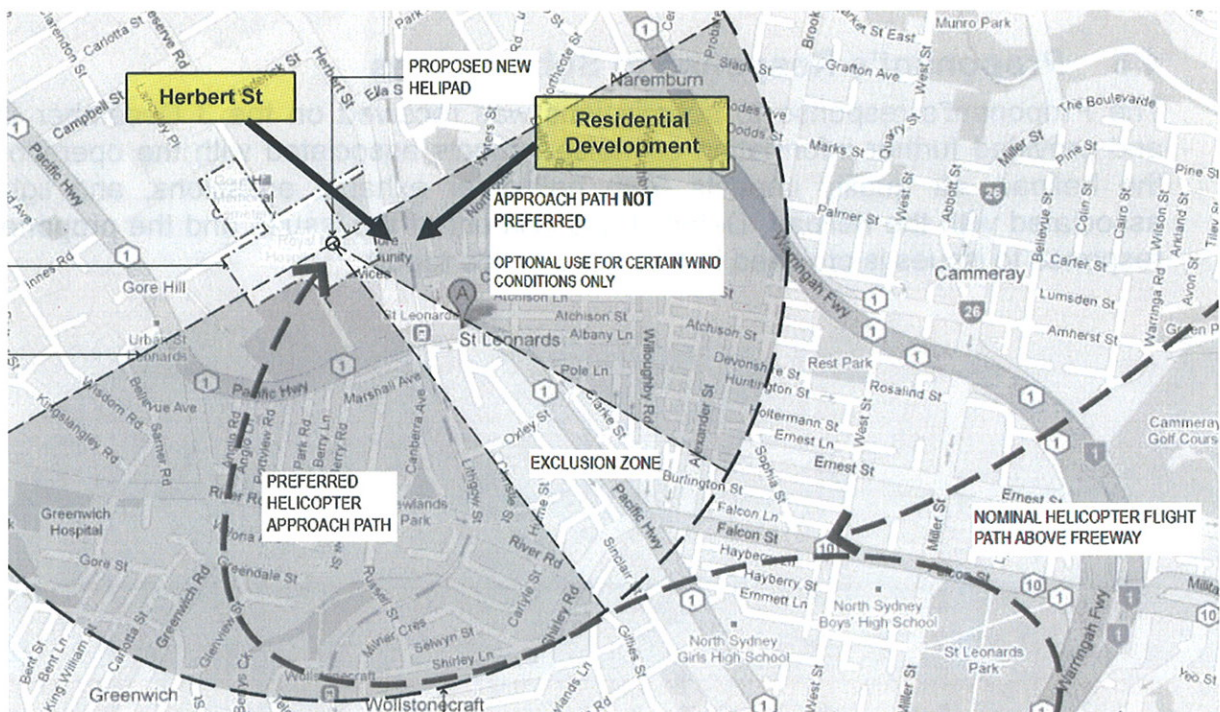
The Department considers the key issues for the proposed modification to be:

- Flight path;
- Noise;
- Air quality;
- Visual impact;
- Lighting; and
- Public interest

5.1 Flight Path

The EA identified two flight paths that are to be utilised when the new Acute Hospital Building helipad is operational, namely, the preferred flight path and non-preferred flight path. The preferred flight path enters the site from the south over the Gore Hill Park oval, and the non-preferred flight path enters the site from the east over the residential tower developments along Herbert Street (see Figure 4).

Figure 4: Flight Path of Helicopter Movements



The existing Douglas Building Helipad is utilised approximately 15-20 times per month. No net increase in helicopter movements is expected as a result of the addition of the Acute Hospital Building Helipad, however the overall number of flight movements is projected to increase by 4% each year. Upon completion of the new Acute Hospital Building Helipad, helicopter movements for emergency care services will primarily utilise the new Acute Hospital helipad. However, some circumstances may still require use of the existing Douglas building helipad and therefore it will still remain operational.

The non-preferred flight path of the Acute Hospital Helipad is to be utilised during periods of unfavourable weather conditions. Based on statistics on the use of the

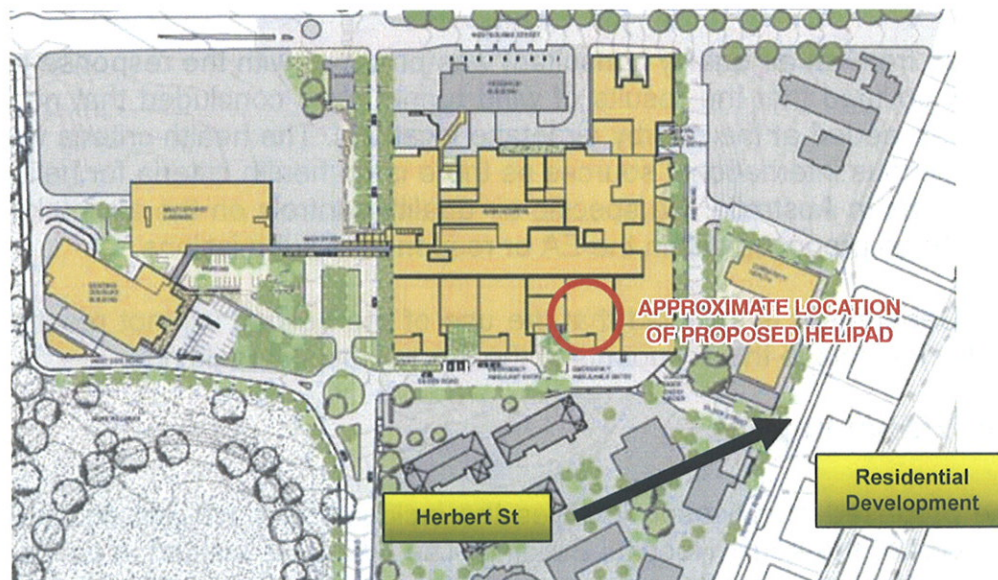
existing Douglas Building Helipad, it is projected that the non-preferred flight path of the Acute Hospital Helipad will be utilised in approximately 5% of helicopter movements, or approximately one flight per month.

The Department has recommended an additional condition that the use of the non-preferred flight path is utilised only during periods of unfavourable weather conditions, to minimise use of the non-preferred flight path where practical, and reduce associated impacts on nearby residences.

5.2 Noise

The project will generate noise through helicopter movements during operation of the helipad, and the nearest sensitive receivers are located in the residential tower developments along Herbert Street, approximately 150m from the proposed helipad (see Figure 4).

Figure 4: Project Location and Noise Receivers



The applicable guideline in relation to air craft noise is *Air Services Australia: Environment Principles and Procedures for Minimising the Impact of Aircraft Noise* (guideline). Principal 7 of the guideline identifies the upper limit of acceptable noise exposure from aircraft to be 95 dB(A).

The acoustic assessment accompanying the EA identified that top floor residences along Herbert street would experience an exposure of 98 dB(A) when the non-preferred flight path was utilised, which represents an exceedance of 3 dB(A) of the guideline. A further acoustic report was provided with the response to submissions which outlined that, based on more recent measurements of helicopter flight movements at Liverpool Hospital, the likely noise level generated would be 94dB(A), therefore complying with the requirement of guideline.

As previously discussed in Section 5.1 of this report, approximately 5% of flights are expected to utilise the non-preferred flight path which equates to approximately one flight per month, where residence along Herbert Street would experience the noise exposure level of 94 dB(A). Further, this peak level is likely to only occur for a short duration as the helicopter passes over the residences.

The Department is satisfied that the use of the Helipad will meet the guideline requirements, and that noise amenity impacts to the surrounding residential development have been minimised through the recommended conditions of approval.

5.3 Air Quality

Air intakes on the upper floors of the Acute Hospital Building are located proximate to the proposed helipad, and it is identified within the EA that helicopter exhaust odours may enter the building and reduce the quality of the workplace environment for staff and patients. Additionally, the EA identified that the infiltration of helicopter exhaust into the air intake system may result in exceedance of the acceptable level of health criteria.

The Qualitative Turbulence and Air Quality Study provided in the EA identified that the extent of active or passive measures to mitigate against any issues of exhaust fumes entering air intakes within the building will be determined from wind tunnel test results.

A letter from an air quality consultant was provided with the response to submissions which outlined that the results of wind tunnel tests concluded that no health criteria were exceeded at the nearby air intake locations. The health criteria was established from various international sources as there is no health criteria for helicopter exhaust emissions in Australia. No specific air quality controls on the air intakes of buildings have been proposed within the EA or response to submissions.

The Department is satisfied that the use of the helipad will not result in adverse air quality impacts to the occupants of the Acute Hospital Building.

5.4 Visual Impact

The proposed modification involves the inclusion of a helipad and a 900mm height increase to the Acute Hospital Building. The helipad is located in an elevated position on the protruding south east segment of the Acute Hospital Building. The additional building elements are not considered to significantly increase the bulk and scale of the existing approval and will not result in any significant overshadowing compared to the existing project approval.

The Department is satisfied that the proposed additional building elements will not result in adverse visual impacts or significant overshadowing to its surroundings.

5.5 Lighting

Lighting associated with the Helipad has potential to impact on the upper floors of the neighbouring residential tower developments along Herbert Street. Lighting will consist of flush mounted green helipad perimeter lights, flush mounted yellow directional lights denoting preferred directions for arrival and departure, illumination lights on windsock, red obstruction lights on structures around helipad, and flood lights associated with the entry room wall on the side of Helipad. The Department has recommended an additional condition requiring the proponent to submit a lighting plan to the Director General detailing how lighting associated with the helipad will be managed and activated only when required.

The Department is satisfied that the any potential impacts of lighting on nearby residential development can be mitigated and managed through the conditions of consent.

5.6 Public Interest

The Acute Hospital Building will provide a new facility for emergency care services and will contain an Emergency Department, Operating Theatres, and Intensive Care Unit. NSW Health has identified the distance from the existing Douglas Building Helipad, to the new Acute Hospital Building as a key clinical risk. The new Helipad proposed under this modification will address this concern, and it will improve emergency patient transfer services for Royal North Shore Hospital. The proposal is in the public interest as it will have significant public benefits including improved survival rates and quality of life for people with potentially fatal or chronic illness through improvements in health care.

6. RECOMMENDATIONS

It is recommended that the A/Director, as delegate for the Minister for Planning:

- a) **Consider** the findings and recommendations of this report;
- b) **Approve** the modification request under Section 75W of the EP&A Act; and
- c) **Sign** the attached instrument of modification (**TAG 'A'**).

Prepared by:

Endorsed by:

 19/1/11

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 19/1/11

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APPENDIX A MODIFICATION REQUEST

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4189

APPENDIX B SUBMISSIONS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4189

APPENDIX C RELEVANT REPORTS OR DOCUMENTS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=4189

APPENDIX D RECOMMENDED MODIFYING INSTRUMENT

Modification of Minister's Approval

Section 75W of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning under delegation executed on 25 January 2010, I approve the modification of the project application referred to in schedule 1, subject to the conditions in schedule 2.



Daniel Cavallo
A/Director
Government Land and Social Projects
Department of Planning

Sydney 19 JANUARY 2011

SCHEDULE 1

Project Approval:	MP08_0172 granted by the Minister for Planning on 17 June 2009
For the following:	Staged demolition of Buildings 1, 2, 10 and 19 (part), within the Royal; North Shore Hospital redevelopment site and construction of the new Acute Hospital Building and Community Health Building
Modification:	(MP08_0172 MOD 3): height increase and addition of helipad to the Acute Hospital building.

**SCHEDULE 2
CONDITIONS**

PART A – ADMINISTRATIVE CONDITIONS

Condition A1 is deleted and replaced with:

A1 Development Description

Project Approval is granted for the following works:

- Staged demolition of Buildings 1,2,10 and 19, within the development site;
- New Acute Hospital building;
- New Community Health Facility;
- Internal alterations to the existing Douglas Building;
- 2 new pedestrian bridges linking the Acute Hospital with the Douglas and Kolling Buildings;
- New multi storey car park for 576 vehicles;
- Public domain works including footpaths, lighting and street tree planting;
- Civil works including stormwater and drainage infrastructure, new roads and utilities; and
- Helipad on Acute Hospital Building.

Condition A2 is deleted and replaced with:

A2 Development in Accordance with Plans and Documentation

The development shall be in accordance with the following plans, documentation and recommendations made therein:

Royal North Shore Hospital and Community Health Facility Environmental Assessment and Project Application – Final for Public Exhibition (including all appendices) prepared by Urbis dated January 2009;

and as amended by:

Royal North Shore Hospital and Community Health Facility Preferred Project Report prepared by Urbis dated May 2009 (including Statement of Commitments and Appendix A - Architectural Drawings) and MP 08_00172 Royal North Shore Hospital Response to Submissions prepared by Urbis and dated 14 April 2009 (including addendum dated 20 May 2009)

RNSH Modification to Project Approval – Community Health Building, Town Planning Report MP08_0172, Section 75W Modification Community Health Building, prepared for Infrashore, November 2009 (excluding the eastern façade drawings) and supplementary information in the letter:

- from Jason Rudd of Halcrow MWT dated 11 December 2009 titled RNSH Community Health Services Building, Review of Pedestrian/Vehicle Interaction at Car Park/Dock Access; and
- from Tony Robb of URBIS Pty Ltd, dated 12 February 2010 and the attached plans:
 - East façade 0100125; and
 - THI-7401 RNSH Elevation 01.

RNSH Modification to Project Approval – Building 19 (Former Mortuary) MP08_0172, Section 75W Modification, prepared for Infrashore, February 2010 and:

- response to submissions from Urbis Pty Ltd, dated 23 June 2010, titled MP08_0172 – Modification 2 – Demolition of Mortuary Building, Royal North Shore Hospital.

RNSH Modification to Project Approval – Height Increase and Helipad on Acute Hospital Building, Section 75 W Modification, prepared for Infrashore, August 2010 and:

- Response to submissions from Urbis Pty Ltd, dated 3 December 2010, titled Submissions Report – Royal North Shore Hospital Modification – Height Increase and Helipad on Acute Hospital Building (MP08_0172 Modification 3)

New Condition 'D4 Helipad Lighting' is inserted after condition 'D3 Work Place Travel Plan'

D4 Helipad Lighting

- (a) Prior to the commencement of operation of the helipad on the Acute Hospital Building, a lighting plan is to be submitted to the Director General for endorsement detailing how lighting associated with the helipad will be managed.
- (b) The Helipad should be illuminated only when in use.

New Condition 'AN10 Use of Helipad Flight Paths' is inserted after condition 'AN9 Commonwealth Environmental Protection and Biodiversity Conservation Act 1999'

AN10 Use of Helipad Flight Paths

During operation of the helipad on the Acute Hospital Building, the non-preferred flight path is to be utilised only during periods of unfavourable weather conditions.