

Our Ref: JC070006

Date: 17 February 2009

Attn: Kerry Kyriacou

Manager Development Assessment

General Manager Randwick City Council 30 Frances St Randwick NSW 2031 SECTION 96 APPLICATION No.

77/07A

RANDWICK CITY COUNCIL

Conics (Sydney) Pty Ltd ABN 26 117 672 643

www.conics.com.au t +61 2 8270 8300

f +61 2 8270 8399

e sydney@conics.com.au

Sydney Office

Level 12, 92 Pitt Street Sydney NSW 2000 (GPO Box 4401 Sydney NSW Australia 2001)

Randwick City Council

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RE: University of New South Wales C25 Cancer Research Facility - MP 06_0281

High Street, Kensington Campus

Records Received

Section 75W Modification to Minister's Approval - Proposed Co-generation Plant

In accordance with the provisions of Section 75W (s75W) of the Environmental Planning and Assessment Act 1979 and on behalf of our client The University of New South Wales (UNSW), we hereby submit this s75W Application to modify the Minister's approval for the UNSW C25 Cancer Research Facility – Project Application (06_0281) at the UNSW Kensington Campus.

The modification will allow the addition of a gas fired co-generation electrical plant as part of the development on top of the C25 Cancer Research Building. The purpose of the proposed co-generation plant is to significantly improve the environmental performance of the facility by substantially reducing greenhouse gas emissions and displacing use of coal as a fuel with natural gas.

This Application is submitted to Randwick City Council as delegate of the Minister for Planning under the Instrument of Delegation dated 13 October 2006. The instrument stated that:

"The delegation may only be exercised in relation to an application lodged by the University of New South Wales (the Proponent) for a Project to construct a new cancer research facility at the Proponent's Kensington Campus... and any modifications to that Project, if approved."

Thus Council has the responsibility to process the Application.

The Application consists of the following documents which we enclose herewith:

- 6 copies of this letter & plans
- a cheque for \$750.00 being the prescribed modification fee, and
- completed Request to Modify a Major Project Application form.

1. Background

On the 20 June 2007, the Minister for Planning granted approval subject to conditions, to Major Project Application (MP 06_0281), comprising:

- (1) The erection of a new Cancer Research Building.
- (2) The provision of associated servicing, landscaping and public domain works.

The Cancer Research Building, currently under construction, is a six storey building and two basement levels located on the upper area of the Kensington Campus. The building is aligned to High Street on the north and is adjacent to existing UNSW medical research facilities, including being attached to the Wallace Wurth Building.

urban growth and infrastructure



The UNSW has recently received a State government grant to construct a co-generation plant as part of the building, supporting UNSW's major environmental initiatives.

The attached roof plan and elevation of the Cancer Research Building also document minor changes to the arrangement of plant and equipment on the roof, including the location of the diesel generator enclosure, compared to that approved under Project Application MP 06_0281. These changes came about during the design development phase and were considered to be consistent with the original approval.

All newly proposed items associated with the addition of the co-generation plant have been highlighted on the attached plans to differentiate from the existing plant and equipment detail.

2. Proposed Modification

The proponent proposes to install a gas fired co-generation electrical plant as part of the development on the roof of the Cancer Research Building thereby altering the roof plan and elevations. The proposed plant would use natural gas to power a generator to supply electricity to the research building and would also supply energy to the UNSW grid when available. The engine will be located within a plant room with acoustic treatments and roof mounted silencer.

The attached roof plans and elevations detailing the proposed co-generation plant, prepared by Wilson Architects, are as follows:

- Level 6 + Plant DWG No. C25-A-C.0310(924) Rev F dated 03/02/2009
- Roof Plan DWG No. C25-A-C.0311(924) Rev E dated 03/02/2009
- North Elevation DWG No. C25-A-C.1001 Rev 16 dated 02/02/2009

The co-generation plant consists of two plant room structures located to the east of the approved diesel generator on the roof comprising:

- eastern co-generation plant 1.6m x 12.5m x 1.5m high structure, set back 2.9m from the northern façade and 4.3m from the southern façade, and not projecting above the parapet height;
- western co-generation plant 2.75m x 12.5m x 3.1m high structure, set back 2.9m from the northern façade and 4.8m from the southern façade; and
- roof mounted silencer and flu on the western co-generation plant, extending 2.9m above main part of the plant roof, which is 3.85 m above the northern parapet.

The entire plant will be located on an isolated slab approximately 150mm thick with acoustic mounts for vibration isolation from Level 5 offices. The co-generation plant will be attenuated to limit noise to 70dBA at 1 metre.

The proposed modifications will change the primary power source of the subject building from electricity drawn from the grid, to using a generator to convert natural gas to electricity, and supply electricity to the UNSW grid when available.

The proposed co-generation plant is smaller in height, scale and bulk than other approved roof plant and equipment.

EPA Guidelines advise that for engines under 3MW, such as the size proposed, no licence is required.

The proposed modifications provide a sustainable solution to the energy requirements of the approved Cancer Research Building and do not result in any change in Gross Floor Area, building height or footprint.

3. Likely Environmental Impacts from the Proposed Modification

The co-generation plant is of a size and scale that does not detract from the design quality of the building or the visual amenity from surrounding areas. The design of the co-generation plant structures do not extend beyond roof plant and equipment previously approved and are appropriately set back from the sides of the building to minimise visual impacts. The co-generation plant will not be visible from the adjoining public domain. Where visible from higher levels, the proposed



plant maintains the approved character of the medical research facility. Its design is consistent with other structures on the roof and it does not alter the character of the roofscape.

The proposed modifications will not impose any undue adverse environmental effects on the receiving environment. Vibration and noise impacts from the co-generation plant have been attenuated with appropriate design treatments.

The conditions of consent from Major Project Application MP 06_0281 already require that a noise and vibration report be submitted prior to the occupation of the building to ensure the noise and vibration emissions from the development comply with the Environment Operation Act 1997, NSW Environmental Protection Authority Noise Control Manual and Industrial Noise Policy, and conditions of Council's approval. This will equally apply to the proposed co-generation plant.

The plant provides a positive contribution to sustainable energy practice. The co-generation plants engine is a gas fired 770kW engine that uses 1869kW of gas. It will save 1700 tonnes per annum of carbon emissions compared with taking the same amount of electricity from the grid. Excess heat will be used for offsetting the heating requirement for the mechanical hot water system. Electricity will also feed back to the UNSW grid reducing the demand on external electricity infrastructure.

There are no health risks associated with the operation of the co-generation plant which is effectively the same as running a natural gas fuelled bus. Natural gas is widely recognised as a far cleaner fuel than either coal or diesel with extremely low to nil production of particulates and SO².

In the event of a fire or an emergency, a fire trip will activate and shutoff valves for the gas supply will engage.

4. Conclusion

As outlined above the proposed modifications will result in a development that is a minor variation of, but substantially the same as, that previously approved by the Minister. The proposal supports UNSW's major environmental initiatives and is a positive contribution to sustainable energy practices. Although altering the approved roof plant and power source there will be no perceptible change. Care has been taken to ensure that local impacts associated with the emissions of noise and SO² are well within the acceptable and required standards.

We trust that the above information will enable a prompt decision in this matter. However, should further information be required please do not hesitate to contact the undersigned (TEL 8270 8300) or Geoffrey Leeson at UNSW (TEL 9385 3431).

Yours faithfully

CONICS (Sydney) PTY LTD

Alan Davidson

Senior Partner - Planning

enc - 6 additional copies of this letter & plans

- a cheque for \$750.00
- completed request to modify a major project application form