

ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

**DETERMINATION OF UNIVERSITY OF NEW SOUTH WALES
TYREE ENERGY TECHNOLOGIES BUILDING
ANZAC PARADE, KENSINGTON**

Major Project No. 09_0163

I, the Minister for Planning, having considered the matters in section 75J(2) of the *Environmental Planning & Assessment Act 1979* (the EP&A Act), determine pursuant to section 75J(1) of the EP&A Act to **give approval** to the major project referred to in the attached Schedule 1 subject to the conditions of approval in Schedule 2.

This approval applies to the plans, drawings and documents cited by the proponent in their Environmental Assessment, Preferred Project Report and Statement of Commitments, subject to the conditions of approval in Schedule 2.

The reasons for the imposition of conditions are to:

- (a) ensure the site is appropriately managed for the proposed use;
- (b) to encourage good urban design and a high standard of architecture;
- (c) to encourage ecologically sustainable development principles;
- (d) adequately mitigate the environmental impacts of the development;
- (e) reasonably protect the amenity of the local area; and
- (f) protect the public interest.



Tony Kelly MLC
Minister for Planning

Sydney,

2010

15 JUL 2010

SCHEDULE 1**PART A — TABLE**

Application made by:	University of New South Wales
Application made to:	Minister for Planning
Major Project Number:	MP 09_0163
On land comprising:	Lot 3 DP 1104617 The University of New South Wales, Kensington
Local Government Area	Randwick
For the carrying out of:	Construction of a new 6 level Tyree Energy Technologies Building including: • a lower ground/semi-basement level; • 13,100m² of Gross Floor Area (GFA); • learning and teaching spaces, laboratories and workshops; • administration, meeting rooms and offices; • lobby, exhibition spaces, amenities and cyclist facilities; • a café with associated kitchen and storeroom; • tri-generation system; and • associated servicing, landscape and public domain works.
Capital Investment Value	\$91,032,252
Type of development:	Project approval under Part 3A of the EP&A Act
Determination:	Project approval is granted subject to the conditions in the attached Schedule 2
Date of commencement of approval:	This approval commences on the date of the Minister's approval
Date approval is liable to lapse	5 years from the date of this approval unless the building works associated with the project have substantially commenced

PART B — NOTES RELATING TO THE DETERMINATION OF MAJOR PROJECT NO. 09_0163**Responsibility for other consents/agreements**

The proponent is solely responsible for ensuring that all additional consents and agreements are obtained from other authorities, as relevant.

Legal Notices

Any advice or notice to the approval authority shall be served on the Director-General.

Inconsistencies between documents

In the event of any inconsistency between the conditions to this major project approval and the approved plans and documentation described in Schedule 2 and the Statement of Commitments in Schedule 3, the conditions in this major project approval prevail.

PART C - DEFINITIONS

In this approval the following definitions apply:

Advisory Notes	Advisory information relating to the approved project but do not form a part of this approval
BCA	Building Code of Australia
Construction	Any works, including earth and building works
Council	Randwick City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DECCW	Department of Environment, Climate Change and Water or its successors
Department	Department of Planning or its successors
Director General	Director General of the Department of Planning, or nominee
DITRD LG	Department of Infrastructure, Transport, Regional Development & Local Government or its successors
EA	Environmental Assessment titled <i>Environmental Assessment Tyree Energy Technologies Building UNSW Kensington Campus</i> , dated December 2009
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
Evening	The period from 6pm to 10pm
GFA	means gross floor area
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
Minister	Minister for Planning, or nominee
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Project	The project described in Condition A1, Part A, Schedule 2 and the accompanying plans and documentation described in Schedule 2, Part A, Condition A2
Proponent	University of New South Wales (UNSW), or anyone else entitled to act on this Approval
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
Response to Submissions	Letter regarding <i>Tyree Energy Technologies Building (MP 09_0163)</i> , UNSW Kensington Campus from RPS Australia East Pty Ltd dated 26 March 2010 and <i>Tyree Energy Technologies Building (MP 09_0163) UNSW Kensington Campus, Deletion of Demolition from Part 3A Project Application Letter</i> from RPS Australia East Pty Ltd, dated 5 May 2010
RTA	Roads and Traffic Authority
Statement of Commitments	The proponent's Statement of Commitment in Schedule 3
Subject Site	Lot 3 DP 1104617

SCHEDULE 2

CONDITIONS OF APPROVAL

PART A—ADMINISTRATIVE CONDITIONS

A1 Development Description

Except as amended by the conditions of this approval, approval is granted only to carrying out the development as described in Schedule 1, and development must be carried out consistently with the Statement of Commitments (attached as Schedule 3).

These conditions of approval do not relieve the proponent of its obligations under the EP&A Act or any other Act.

A2 Development in accordance with plans and documents

The development will be undertaken in accordance the following drawings and documents:

<i>Environmental Assessment Tyree Energy Technologies Building UNSW Kensington Campus and Appendices prepared by Conics Pty Ltd, dated December 2009</i>			
<i>Tyree Energy Technologies Building (MP 09_0163), UNSW Kensington Campus Letter from RPS Australia East Pty Ltd, dated 26 March 2010 and UNSW Kensington Campus, Deletion of Demolition from Part 3A Project Application Letter from RPS Australia East Pty Ltd, dated 5 May 2010</i>			
Architectural (or Design) Drawings prepared by fjmt			
Drawing No.	Revision	Name of Plan	Date
PA03	A (as marked)	Landscape Plan	10 December 2009
PA04	A (as marked)	Lower Ground	10 December 2009
PA05	A (as marked)	Ground Floor	10 December 2009
PA06	A (as marked)	Level One	10 December 2009
PA07	A (as marked)	Level Two	10 December 2009
PA08	A (as marked)	Level Three	10 December 2009
PA09	A (as marked)	Level Four	10 December 2009
PA10	A (as marked)	Level Five / Roof Plant	10 December 2009
PA11	A (as marked)	Level Six / Roof	10 December 2009
PA12	A (as marked)	North Elevation	10 December 2009
PA13	A (as marked)	South Elevation	10 December 2009
PA14	A (as marked)	East Elevation	10 December 2009
PA15	A (as marked)	West Elevation	10 December 2009
PA16	A (as marked)	Section A	10 December 2009
PA17	A (as marked)	Section B	10 December 2009

A3 Demolition Works

No demolitions works as described in the EA and Response to Submissions forms part of the project application approval.

A4 Compliance with the Building Code of Australia

Work must be carried out in accordance with the requirements of the *Building Code of Australia*.

A5 Development Expenses

It is the responsibility of the proponent to meet all expenses incurred in undertaking the development including expenses incurred in complying with conditions imposed under this approval.

PART B—PRIOR TO THE CERTIFICATION OF CROWN BUILDING WORK**B1 Crown Building work**

Crown building work cannot be commenced unless the Crown building work is certified by or on behalf of the Crown to comply with the technical provisions of the State's building laws. The proponent shall supply the Department of Planning with evidence of the certification of the works.

Certification of the works under s 109R of the EP&A Act 1979 before commencement can be either for the whole project or a component of the works, reflecting the staging of construction.

B2 Further Approvals

The proponent shall obtain all necessary approvals required by State and Commonwealth legislation in undertaking the project including those from the DITRDLG relating to approval for the height of the proposed building in relation to building intrusions into the Sydney Airport Height Obstacle Limitation Surface (OLS) prior to certification of any Crown building works for any above ground structures (above RL 27 metres).

B3 Tri-Generation System

Prior to certification of relevant Crown building works the proponent shall consult DECCW and provide information relating to the detailed design of the tri-generation system to confirm whether the proposal requires an Environment Protection Licence under the provisions of the POEO Act. If the proposal requires an Environment Protection Licence then it shall be designed, maintained and operated to meet environmental standards for air and noise emissions that are determined in accordance with applicable DECCW policies.

B4 Developer Contributions

A total monetary contribution of \$81,937 being paid to Council, pursuant to section 94A and section 94B(2) of the Environmental Planning and Assessment Act 1979, such contribution to be payable prior to certification of any Crown building works in respect of the proposed development.

- The amount of contribution payable under this condition has been calculated on the basis of the current rate as at the date of approval and is based on the most recent quarterly Consumer Price Index (CPI) release made available by the Australian Bureau of Statistics (ABS). The CPI index rate is expected to rise at regular intervals and therefore the actual contribution payable is indexed and recalculated at the CPI rate applicable on the day of payment.
- CPI quarterly figures are released by the ABS on a date after the indexation quarter and as a guide, these approximate dates are provided below. Indexation quarters from the ABS are as follows:

Indexation quarters	Approx release date
September	Late October
December	Late January
March	Late April
June	Late July

Any party intending to act on this approval should contact Randwick Council's Customer Enquiry Centre for determination of the indexed amount of contribution on the date of payment.

B5 Mechanical Ventilation

All mechanical ventilation systems shall be designed in accordance with Part F4.5 of the Building Code of Australia and shall comply with Australian Standards AS1668.2 and AS3666 *Microbial Control of Air Handling and Water Systems* of Building, prior to certification of any Crown building works to ensure adequate levels of health and amenity to the occupants of the building and to ensure environment protection.

B6 Stormwater and Drainage

Prior to certification of any Crown building works the proponent shall prepare a Stormwater Drainage Plan for the development designed in accordance with the *Stormwater Strategy* prepared for UNSW by ANA Technical Services Pty Ltd dated 28 November 2005, including the following details:

- connection to Council's underground drainage system;
- layout of drainage system;
- on site stormwater detention;
- absorption trenches;
- demonstrate that storm water discharge into the RTA drainage system will not exceed the pre-development discharge;
- demonstrate all new openings are designed to be a minimum 300 mm above the determined 1 in 100 year flood level; and
- provision and maintenance of overland flow paths.

If the detailed design plans and hydraulic calculations demonstrate any changes to the RTA stormwater drainage system, those plans and calculations are to be submitted to the RTA for approval, prior to certification of any Crown building works.

All approved details for the disposal of stormwater and drainage are to be implemented in the development.

B7 Detailed Design Drawings

Detailed design drawings and geotechnical reports relating to the excavation of the site and support structures are to be submitted to the RTA for assessment prior to certification of Crown building works.

The proponent is to contact the RTA's Geotechnical Engineer for the report requirements, which include addressing the following key issues:

1. the impact of excavation/rock anchors on the stability of Anzac Parade and detailing how the carriageway would be monitored for settlement; and
2. the impact of the excavation on the structural stability of Anzac Parade.

The proponent is to meet the full cost of the assessment.

B8 Disabled Access

Access and facilities for people with disabilities shall be provided in accordance with Part D3 of the BCA's Access Policy and implement all recommendations in *UNSW TETB Project Access Review* prepared by Morris-Goding Accessibility Consulting, dated 3 December 2009. Prior to certification of any Crown building works for the new building a certification of compliance with this condition from an appropriately qualified person shall be obtained.

B9 Traffic and Parking Details

Prior to certification of relevant Crown building works for the new building, plans are to identify the following traffic and parking details:

- (1) all vehicles should enter and leave the site in a forward direction. In the event that site constraints do not permit heavy rigid vehicles to enter and leave the site in a forward direction, then all reversing movements should be undertaken under the control of certified traffic controllers to ensure public safety when vehicles are reversing;

- (2) car parking associated with the proposal (including queuing areas, grades, turn paths, sight distance requirements, aisle widths, and parking bays) should be in accordance with AS 2890.1-2004 and AS 2890.2-2002 for heavy vehicle usage;
- (3) appropriate pedestrian advisory signs are to be provided at the egress from the car park and loading dock and
- (4) all works/regulatory signposting associated with the proposed developments shall be at no cost to the RTA.

B10 Reflectivity

The light reflectivity from any building materials used on the facades of the building shall not exceed 20% and shall be designed so as not to result in glare that causes any nuisance or interference to any person or place.

B11 Groundwater

The lower ground floor level must be suitably water proofed.

B12 Sydney Water – Notice of Requirements

An application shall be made to Sydney Water for a Certificate under Part 6, Division 9, section 73 of the *Sydney Water Act 1994* (Compliance Certificate) prior to certification of any Crown building works.

Application must be made through an authorised Water Servicing Coordinator. Please refer to the "Your Business" section of the web site www.sydneywater.com.au then follow the "e-Developer" icon or telephone 13 20 92 for assistance.

Following application a "Notice of Requirements" will advise of water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.

B13 Outdoor Lighting

All outdoor lighting shall be designed to comply with, where relevant, AS/NZ1158.3: 1999 *Pedestrian Area (Category P) Lighting* and AS4282: 1997 *Control of the Obtrusive Effects of Outdoor Lighting*.

PART C— PRIOR TO COMMENCEMENT OF WORKS**C1 Aircraft Safety**

An application for any of the following works must be submitted to the Sydney Airport Corporation Ltd a minimum of 35 days prior to commencement of relevant works in accordance with the Airports (Protection of Airspace) Regulations Statutory Rules 1996 No. 293 detailing:

- (1) The location and height of any buildings and signage structures proposed;
- (2) Location of any temporary structure or equipment, i.e. construction cranes, planned to be used during construction relative to Mapping Grid of Australia 1994 (MGA94);
- (3) The swing circle of any temporary structure/equipment used during construction;
- (4) The maximum height, relative to Australian Height Datum (AHD), of any temporary structure or equipment i.e. construction cranes, intended to be used in the erection of the proposed structure/activity;
- (5) The period of the proposed operation (i.e. construction cranes) and desired operating hours for any temporary structures.

C2 Construction Management Plan

A Construction Management Plan shall be prepared in consultation with Council and submitted to the Department for approval prior to the commencement of works. The Plan shall include, but not be limited to, the following matters which are to be addressed by suitably qualified person(s):

- (1) **Hours of work**, which must be in accordance with the conditions of this approval;
- (2) **Contact details** of the site manager and all principle contractors;
- (3) **Traffic management**, which is to be developed in consultation with the RTA and is to include:
 - identification of a work zone;
 - ingress and egress of vehicles to the site;
 - management of loading and unloading of materials;
 - number and frequency of vehicles accessing the site and construction vehicle routes;
 - the times vehicles are likely to be accessing the site;
 - access arrangements and traffic control;
 - details on the temporary relocation of the bus stop;
 - changes to on-street parking restrictions on roads;
 - management of construction traffic and car parking demand including preparation and distribution of a Travel Access Guide; and
 - management of existing vehicular and pedestrian movements / routes around the site throughout the various stages of construction;
- (4) **Erosion and sediment control**, identifying appropriate measures to be installed during construction which shall be designed in accordance with in accordance with the document *Managing Urban Stormwater – Soils & Construction Volume 1 (2004)* by Landcom;
- (5) **Construction noise and vibration management**, identifying specific activities that will be carried out and associated noise sources, identify all potentially affected sensitive receivers, noise and vibration monitoring reporting and response procedures, description of specific mitigation treatments management measures and procedures to be implemented, and address any other relevant provisions of Australian Standard 2436-1981 *Guide to Noise Control on Construction, Maintenance and Demolition Sites*;
- (6) **Construction waste management**, identifying options for minimising waste in construction; reuse and recycling of materials; the storage, control and removal of construction waste; and
- (7) **Dust control** measures to be implemented to prevent the movement of airborne particles from the site throughout the construction process, and the tracking of material from the site by trucks and other vehicles. This is to include the appropriate use of physically barriers and the dampening of exposed excavated surfaces. The storage and stockpiling areas for material is also to be detailed.

C3 Notice to be Given Prior to Commencement / Excavation

Council shall be given written notice, at least 48 hours prior to the commencement of excavation, shoring or underpinning works on the site for each stage of the project.

C4 Construction Works Zone

If a construction works zone is required where loading and unloading is not possible on site and approval is required from RTA's Transport Management Centre as the relevant Roads Authority, the proponent shall obtain approval from RTA prior to commencement of works. An approval for the works zones may be given for a specific period and certain hours of the day to meet the particular need for the site for such facilities at various stages of construction.

C5 Road Occupancy Licence

A road occupancy licence is to be obtained from the RTA prior to the commencement of works for any works that may impact on traffic flows on Anzac Parade during construction activities.

C6 Footpath Damage Bank Guarantee

Prior to commencement of the new building works the proponent must provide a bank guarantee to Council for an amount of \$10,000 as security for rectification of any damage to the public way.

The proponent is to advise Council in writing and/or photographs of any signs of existing damage to the Council roadway, footway, or verge prior to the commencement of any building/demolition works.

C7 *Barricade Permit*

Where construction/building works require the use of a public place including a road or footpath, approval for a Permit is to be obtained from Council prior to the commencement of work. Details of the barricade construction, area of enclosure and period of work are required to be submitted to the satisfaction of Council.

C8 *Road/Asset Opening Permit*

A Road / Asset Opening Permit must be obtained from Council or the RTA prior to carrying out any works within or upon a road, footpath, nature strip or in any public place, in accordance with section 138 of the Roads Act 1993, and all of the conditions and requirements contained in the Road / Asset Opening Permit must be complied with.

C9 *Vehicle Cleansing*

Prior to the commencement of work, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.

C10 *Utility Services*

- Prior to the commencement of work the proponent is to negotiate with the utility authorities (e.g. Energy Australia, Sydney Water Corporation Limited and Telecommunications Carriers) in connection with the relocation and/or adjustment of the services affected by the construction of the underground structure. Any costs in the relocation, adjustment or support of services are to be the responsibility of the proponent.
- Any necessary alterations to public utility installations being at the proponent's/Demolisher's expense and to the requirements of both Council and the appropriate authorities.

C11 *Contact Telephone Number*

The proponent shall ensure that a 24 hour contact telephone number is continually attended by a person with authority over the works for the duration of the development. The contact number shall be forwarded to Council and the Department prior to commencement of works.

C12 *Haulage Routes*

The routes for import of any fill materials or export of any spoil being submitted to and agreed to by the relevant road authorities prior to the commencement of haulage. Unacceptable deterioration or failures within public roads attributable to these operations is to be restored to the requirements of, and at no cost to the road authorities.

PART D – DURING CONSTRUCTION

D1 *Ecologically Sustainable Development*

The project shall achieve as a minimum a 5 star Green Star design rating and shall implement all construction and design measures outlined in the UNSW Tyree Building Green Star Strategies Report prepared by AECOM Australia Pty Ltd, dated 21 October 2009.

D2 *Hours of work*

The hours of excavation and work on the development must be as follows:

- All excavation and construction work and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (e.g. loading and unloading of goods, transferring of tools etc) in connection with the approved development must only be carried out between the hours of:

- 7.00am and 6.00pm on Mondays to Fridays;
- 8.00am and 1.00pm on Saturdays; and
- No work must be carried out on Sundays or public holidays.
- Works may be undertaken outside these hours where:
 - the delivery of materials is required outside these hours by the Police or other authorities;
 - It is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm; or
 - the work is approved by the Director General or his nominee.

In addition, the use of any rock excavation machinery or any mechanical pile drivers or the like that will generate significant noise impacts, is restricted to the hours of 9.00am to 12.00pm and 2.00pm to 5.00pm on Monday to Friday only, to minimise the noise levels during construction and loss of amenity to nearby residents.

D3 Site Notice

A site notice(s) shall be prominently displayed at the boundaries of the site for the duration of works for the purposes of informing the public of project details including, but not limited to:

- (1) details of the Builder and Structural Engineer for all stages of the project;
- (2) the approved hours of work;
- (3) the name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction/noise complaint are to be displayed on the site notice; and
- (4) to state that unauthorised entry to the site is prohibited.

D4 Excavation

If it is necessary to excavate below the level of the base of the footings of the adjoining roadways, the owners of the roadway are to be given at least 7 days notice. This notice is to include complete details of the work.

D5 Noise Control

- All work, including excavation and construction work must comply with the Australian Standard 2436-1981 'Guide to Noise Control on Construction, Maintenance and Demolition Sites'.
- Noise and vibration emissions from equipment and associated site works must not result in damage to nearby premises or result in an unreasonable loss of amenity to nearby residents or businesses and the relevant provisions of the *Protection of the Environment Operations Act 1997* must be satisfied at all times.

D6 Standards and Codes

All building works shall be constructed in accordance with safe work practices and complying with the relevant Australian Standards, Codes of Practice and the Building Code of Australia.

D7 Work Cover Requirements

To protect the safety of work personnel and the public, the work site shall be adequately secured to prevent access by unauthorised personnel, and work shall be conducted at all times in accordance with relevant Work Cover requirements.

D8 Hoarding Requirements

- To ensure an appropriate presentation of the site to Anzac parade during the construction period, temporary artwork shall be provided along any hoarding/fencing proposed to be erected around the subject site.
- The temporary artworks shall inform the general public about the proposed works being undertaken by the proponent and the site's history.

- No third party advertising is permitted to be displayed on the subject hoarding/fencing.
- The construction site manager shall be responsible for the removal of all graffiti from any construction hoardings or the like within the construction area within 48 hours of its application.

D9 *Swept Path of Vehicles*

The swept path of the longest vehicle (including garbage trucks) entering and exiting the subject site, as well as manoeuvrability through the site, shall be in accordance with AUSTROADS.

D10 *No obstruction of public way*

The public way (outside of any construction works zone) must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances. Non-compliance with this requirement will result in the issue of a notice by the relevant Authority to stop all work on site.

D11 *Disposal of seepage and stormwater*

Any seepage or rainwater collected on-site during excavation shall not be pumped to the street stormwater system unless separate prior approval is given in writing by the relevant Authority.

D12 *Erosion and sediment control*

Sediment controls are to be in place for the duration of the works to ensure that no sediment, fines, and like material can enter the waterway or drainage system. The proponent is to carry out works generally in accordance with the Construction Management Plan and controls are to be maintained at design level throughout the duration of the works and are to be inspected for this purpose at frequent intervals. Any deficiencies are to be immediately made good.

D13 *Dust Control Measures*

Dust control measures are to be in place or are to be undertaken for the duration of the works to prevent dust from affecting the amenity of the immediate area during construction. The proponent is to carry out works generally in accordance with the Construction Management Plan, and controls are to be maintained at design level throughout the duration of the works and are to be inspected for this purpose at frequent intervals. Any deficiencies are to be immediately made good.

D14 *Pedestrian Access During Construction*

Pedestrian access along Anzac Parade is to be maintained throughout construction. Alternative routes, including those for persons with disabilities, shall be clearly identified and signposted for the duration of the works, and until such time as the permanent accessible paths are provided.

D15 *Setting Out of Structures*

The new buildings shall be set out by a registered surveyor to verify the correct position of each structure in relation to property boundaries and the approved alignment levels.

D16 *Directional Signage*

- Directional signage shall be modified as required to accommodate any altered pedestrian and vehicular movements within the area.
- Particular attention is to be paid to:
 - wheelchair accessible paths of travel;
 - safe road crossing areas including signalised and other designated crossings;
 - key landmarks;
 - access to transport nodes including public transport; and

- the vehicular entrance and exit driveways and the direction of traffic movement within the site being clearly indicated by means of reflectorised signs and pavement markings.

D17 Traffic Movement

- All vehicles must enter and leave the site in a forward direction.
- The cost of all traffic management works shall be borne by the proponent.
- Movement of trucks to and from the site shall be staggered so as to limit access and egress during peak traffic periods.
- The Contractor shall make provisions for safe, continuous movement of traffic and pedestrians in public roads and private roads accessible to the public and erecting traffic warning signs conforming to the Roads and Traffic Authority's General Specifications (RTA Spec. Part G10 "Control of Traffic" and RTA Spec. 3355). Traffic control is to be carried out only by flagmen with certification that they have been trained in accordance with Australian Standard 1742.3 – 2002.

D18 Approved plans to be on-site

A copy of the approved and certified plans, specifications and documents incorporating conditions of approval shall be kept on the site at all times and shall be readily available for perusal by any officer of the Department or Council.

D19 Work on site to cease

- If any unidentified historical archaeological remains or deposits are exposed during the works excavation is to cease immediately in the affected areas and the archaeologist is to undertake an evaluation of the potential extent and significance of such relics. The Heritage Council is to be notified in accordance with section 146 of the NSW Heritage Act, 1977.
- Should any Aboriginal relics or artefacts be discovered during the course of any works on-site, then work is to cease immediately. Work may only be resumed following written consent being obtained from the Department of Environment, Climate Change and Water.

D20 Excavated Material

Any excavated material to be removed from the site being assessed, classified, transported and disposed of in accordance with the EPA's *Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes*.

D21 Imported Fill

Any imported fill onto the site being validated to ensure its suitability for the proposed land use from a contamination perspective. Imported fill is to be certified that it is not contaminated, based upon analysis or the known past history of the site from which it is obtained.

PART E – PRIOR TO OCCUPATION AND COMMENCEMENT OF USE**E1 Landscape Plan**

A detailed Landscape Plan, including elevation plans, must be provided with revised treatment of the hedge planting and fencing to the north-west of the building to improve views to the development, shall be submitted to the Department for approval prior to occupation of the building.

E2 Work Place Travel Plan and Travel Access Guide

Prior to occupation of the building a work place travel plan and travel access guide is to be prepared to encourage the use of non-car transport modes by students, employees and visitors to the site.

E3 Noise Control – Plant and Machinery

Prior to occupation of the building a report is to be prepared by a qualified acoustic engineer confirming that the installation and performance of the mechanical systems complies with:

- the recommendations of the *Tyree Energy Technologies Building Project Acoustic Assessment Development Application Report* prepared by ARUP, dated December 2009;
- the Building Code of Australia;
- Australian Standard AS1668 and other relevant codes;
- the project approval and any relevant modifications; and
- any dispensation granted by the New South Wales Fire Brigade.

E4 Fire Safety Certificate

A Fire Safety Certificate shall be obtained for all the Essential Fire or Other Safety Measures forming part of this approval prior to occupation of the building. A copy of the Fire Safety certificate must be submitted to the relevant authority and Council.

E5 Structural Inspection Certificate

A Structural Inspection Certificate for any structural work is to be obtained prior to occupation of the building.

E6 Sydney Water

A Compliance Certificate issued under Part 6, Division 9, Section 73 of the Sydney Water Act 1994 shall be obtained prior to occupation of the building.

E7 Replacement of Footpaths

Prior to occupation of the building the proponent must remove and replace all concrete footpaths along the Anzac Parade site frontage extending from directly adjacent to the development site to the vicinity of the relocated bus shelter (including University Mall) for a minimum length of 180 metres and to the satisfaction of Council. Any unpaved areas on the nature strip must be turfed and landscaped to Council's specification.

E8 Road Damage

The cost of repairing any damage caused to Council or other Public Authority's assets in the vicinity of the subject site as a result of construction works associated with the approved development, is to be met in full by the proponent prior to the occupation of the building.

E9 Waste Management

Prior to occupation of the building the proponent must ensure that waste handling works have been completed in accordance with the Waste Management Plan; other relevant approval conditions; and any relevant Council policy.

PART F – POST OCCUPATION & ON GOING OPERATIONAL CONDITIONS**F1 Ecologically Sustainable Development**

The project shall achieve as a minimum a 5 star Green Star design rating and shall implement all operational and design measures outlined in the UNSW Tyree Building Green Star Strategies Report prepared by AECOM Australia Pty Ltd, dated 21 October 2009.

F2 Tri-Generation System Nitrogen Oxide Emissions

The operation of the tri-generation system shall meet an oxides of nitrogen (NOx) emission performance of 250 mg/m³ if it has a capacity to burn less than 7 mega joules of fuel per second. DECCW shall be contacted for the NOx emission performance requirements should the final design of the tri-generation system have a capacity to burn 7 mega joules of fuel per second or greater.

F3 *Bus Stop*

The proponent shall obtain approval from the NSW State Transit Authority and the RTA for the permanent relocation of the bus stop/shelter. Prior to occupation of the building, the proponent shall provide evidence of these approvals to the Department or, if approval is not obtained, reinstate the original bus stop/shelter.

F4 *Annual Fire Safety Certificate*

An annual Fire Safety Statement must be given to Council and the NSW Fire Brigade commencing within 12 months after the date on which the initial Interim/Final Fire Safety Certificate is issued. This must ensure that the essential services installed in the building for the purpose of fire safety have been inspected and at the time of inspection are capable of operating to the required minimum standard.

F5 *Noise Control – Operational*

The use of the premises shall not cause a nuisance, or an offensive noise as defined in the *Protection of the Environment Operations Act 1997*, to adjoining properties or the public.

F6 *Noise Control – Plant and Machinery*

Noise associated with the operation of any plant, machinery or other equipment on the site, shall not give rise to any one or more of the following:

- Transmission of "offensive noise" as defined in the *Protection of the Environment Operations Act 1997* to any place of different occupancy;
- A sound pressure level at any affected residential property that exceeds the background (LA90, 15 minute) noise level by more than 5dB(A). The background noise level must be measured in the absence of noise emitted from the premises. The source noise level must be assessed as a LAeq, 15 minute; and
- Notwithstanding compliance with (1) and (2) above, the noise from mechanical plant associated with the premises must not be audible in any habitable room in any residential property between the hours of 12.00 midnight and 7.00am.

F7 *Loading and Unloading*

All loading and unloading, including deliveries to and from the site in connection with the use must be carried out in a manner so as not to cause inconvenience to the public or detrimentally impact the amenity of the locality.

F8 *Unobstructed Driveways and Parking Areas*

All driveways and parking areas shall be unobstructed at all times. Driveways and car spaces shall not be used for the manufacture, storage or display of goods, materials or any other equipment and shall be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

ADVISORY NOTES**AN1 *Use of Mobile Cranes***

The proponent shall obtain all necessary permits required for the use of mobile cranes on or surrounding the site, prior to the commencement of works. In particular, the proponent shall ensure the following matters are complied with:

- for special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on street use of mobile cranes, permits must be obtained from Council:
 - at least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions; and
 - at least 4 weeks prior to the works for full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions;

- the use of mobile cranes must comply with the approved hours of construction and shall not be delivered to the site prior to 7.30am without the prior approval of Council.

AN2 *Movement of Trucks Transporting Waste Material*

The proponent shall notify the Roads and Traffic Authority's Traffic Management Centre (TMC) of the truck route(s) to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from the site.

AN3 *Disability Discrimination Act*

This application is to comply with the Disability Discrimination Act 1992. The proponent/owner is responsible to ensure compliance with this and other anti-discrimination legislation. The Disability Discrimination Act 1992 covers disabilities not catered for in the minimum standards called up in the Building Code of Australia which references AS 1428.1 - Design for Access and Mobility. AS1428 Parts 2, 3 & 4 provides the most comprehensive technical guidance under the Disability Discrimination Act 1992 currently available in Australia.

AN4 *Temporary Structures*

A Barricade/Hoarding Permit must be obtained prior to the commencement of construction works from the relevant Authority. The permit application must be supported by a report detailing compliance with the provisions of the Building Code of Australia.

Structural certification from an appropriately qualified practicing structural engineer must also be submitted to the relevant Authority to certify the structural adequacy of the design of the temporary Barricades/Hoarding.

AN5 *Structural Capability for Existing Structures*

The structural capabilities of any existing structure will need to meet the requirements of the BCA and may require engaging a structural engineer.

AN6 *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 provides that a person must not take an action which has, will have, or is likely to have a significant impact on a matter of national environmental significance (NES) matter; or Commonwealth land, without an approval from the Commonwealth Environment Minister.

This application has been assessed in accordance with the New South Wales Environmental Planning & Assessment Act, 1979. The determination of this assessment has not involved any assessment of the application of the Commonwealth legislation. It is the proponent's responsibility to consult Environment Australia to determine the need or otherwise for Commonwealth approval and you should not construe this grant of approval as notification to you that the Commonwealth Act does not have application. The Commonwealth Act may have application and you should obtain advice about this matter. There are severe penalties for non-compliance with the Commonwealth legislation.

SCHEDULE 3

PROPONENT'S STATEMENT OF COMMITMENTS

General

1. The development will be undertaken in accordance with this Environmental Assessment dated December 2009 prepared by Conics (Sydney) Pty Ltd (including accompanying appendices) and the drawings including the architectural drawings prepared by architects Francis-Jones Morehen Thorp, in Volume 2 to this report.
2. The applicant will obtain all necessary approvals required by State and Commonwealth legislation and relevant Randwick City Council policies.

Transport and Parking

3. Car parking will be limited in accordance with the Traffic Report by URaP/TTW (March 2010).
4. All deliveries and service vehicles to the site during the operational stage of the development will enter and exit via Gate 14. A manoeuvring area for medium rigid vehicles and loading dock will be provided to the south-east of the building.
5. Access, servicing and layout arrangements will be provided in accordance with AS 2890.1:2004 and AS 2890.2:2002.

ESD

6. The construction and operation of the Tyree Energy Technologies Building will be undertaken in accordance with the Green Star Strategies Report prepared by AECOM dated 21 October 2009 and the ESD guidelines prepared by UNSW Environment Unit (November 2006) to achieve identified ESD initiatives. The design of the project will be subject to continuing refinement during the detailed design phase in consultation with UNSW.

Tree Management

7. Prior to commencing any work on the site, the trees that are to be retained will be protected as set out in the Arboriculture Assessment prepared by The ENTS Tree Consultancy dated 26 November 2009 at Appendix C, by defining a Tree Protection Zone. Should the need arise to prune any branches to allow for installation of hoardings this will be done by a qualified arborist and in accordance with the Australian Standard AS 4373-1996 "Pruning of Amenity Trees".
8. The Tree Protection Zone will remain until construction is completed. Should the need arise to access or reduce the Tree Protection Zone, the Site Arborist will prepare an amended Tree Protection Plan and specific Tree Protection Guidelines for approval prior to its implementation.
9. Natural ground level will be maintained under the canopy of trees to be retained. Trenching for services, stockpiling of materials, wash out of equipment and parking of vehicles will not take place under the canopy of the trees. If trenching under the canopy is unavoidable, tree roots will be located and a path selected, in consultation with the Site Arborist, that minimises the impact on the trees and ensure their ongoing health.
10. Tree protection will form a part of the site induction process. All inductees will be made aware of the trees that are to be retained and the prohibited activities.
11. Any removal of trees from within the site will be in accordance with Randwick City Council's Tree Preservation Order.

Landscape and Public Domain

12. Landscape works will be provided in accordance with the landscape design statement and landscape plan prepared by Francis-Jones Morehen Thorp as set out in Appendix O and Volume 2.
13. Any public domain infrastructure damaged due to building works will be repaired or replaced to the standard in which that infrastructure was found immediately prior to the commencement of the works. The repair or replacement will be done to the satisfaction of the Department of Planning prior to issue of the Occupation Certificate.
14. The Department of Planning will be provided with larger examples of the exterior materials within 120 days of issue of main Construction Certificate.

Infrastructure and Services

15. All services that will be disrupted as a result of construction of the Tyree Energy Technologies Building will be appropriately relocated. This relocation will be undertaken in consultation and after agreement with the relevant service provider and UNSW. Relocation of all services off-site will be completed prior to commencement of construction works.
16. All existing utility services will be augmented as required.
17. Stormwater runoff from the site will be managed in accordance with the Stormwater Strategy prepared for UNSW.
18. Aquifer recharge and bore water reuse, licensed by the Department of Environment, Climate Change and Water, will be implemented where permissible. The project will extend UNSW's substitution of town water use by harvested stormwater via the Botany Sands Aquifer (subject to approval).

Waste Management

19. A detailed waste management plan will be prepared to ensure that suitable waste management processes and waste storage areas that support the principles of waste avoidance, reuse and recycling are incorporated into the design of the building. The waste management plan will include projected waste generation rates for the end use of the project. The development plans will include facilities to support this waste generation, ie appropriately sized and accessible waste storage areas, integrated with waste collection systems.
20. Prior to commencement of work on site a waste management plan that maximises reuse and recycling of waste generated in the demolition and construction phase will be prepared.
21. All waste storage areas will be graded and drained to the sewer to the requirements of Sydney Water.

Construction

22. Site management during construction will be consistent with the outline of Environmental Management Requirements at Appendix K. The plan will include:
 - statutory compliance
 - hazardous substances/dangerous goods management plan
 - waste management plan
 - stormwater and erosion management plan
 - noise and vibration management plan
 - air quality management plan
 - tree protection plan
 - community and stakeholders consultation/ participation management plan, and
 - sustainability, and
 - traffic aspects.
23. General constructions hours will be as follows:
 - Monday to Friday 7:00 am to 6:00 pm, and
 - Saturday 7:00 am to 3:00 pm.
24. Where construction work is undertaken which generates significant noise or vibration impacts, construction hours will be as follows:
 - Monday to Friday 9:00 am to 12:00 pm and 2:00 pm to 5:00 pm, and
 - Saturday 9:00 am to 12:00 pm.
25. A traffic management plan detailing the temporary barriers, line marking and signage that will be set up to control traffic during the construction stage will be prepared and approved by UNSW prior to commencement of works.
26. All areas used for construction site activities will be reinstated prior to occupation of the premises. Services such as irrigation will be reinstated along with the replacement of any damaged paving.

Building Code of Australia

27. The architectural plans will be subject to review to ensure compliance with the deemed-to-satisfy provisions of the BCA, or compliance with the relevant provision through an alternate solution.
28. All works will comply with the provisions of the BCA, either in terms of the deemed-to-satisfy provisions or by way of an alternate solution.

Noise

29. The recommendations of the Noise Report prepared by Arup (December 2009) will be implemented.
30. A qualified acoustic consultant will be engaged during the detailed design development to ensure that the acoustic requirements for the project as outlined in the Noise Report are achieved.

Access for People with a Disability

31. The development will comply with the requirements of Australian Standard AS 1428.1 General requirements for Access as well as the Access Review at Appendix D.

Operation

32. The design and management of the building will comply with the laboratory design and procedures, dangerous goods handling and storage outlined in Section 2.6 of this report.