

<b>JRPP Ref. No.</b>	<del>2012SYW064</del> 2013 SYW 032
<b>Application Number</b>	DA13/0161
<b>Applicant</b>	University of Western Sydney
<b>Proposed Development</b>	Construction of a Three Storey Research & Commercial Building, Service Road, Car Parking, Stormwater Drainage Works & Landscaping at the University of Western Sydney, Werrington South Campus
<b>Property Address</b>	Lot 14 Great Western Highway, Kingswood
<b>Property Description</b>	Lot 14 DP 850402
<b>Property Owner</b>	University of Western Sydney
<b>Date Received</b>	26 February 2013
<b>Assessing Officer</b>	Belinda Borg
<b>Category of Development</b>	Capital Investment Value > \$5 Million = \$23.695mill.



### Executive Summary

A Development Application has been received from the University of Western Sydney for the Construction of a Three Storey Research & Commercial Building, Service Road, Car Parking, Stormwater Drainage Works & Landscaping at the at Lot 14 DP 850402 Great Western Highway Kingswood. The University of Western Sydney, Werrington South Campus is a major tertiary educational facility providing undergraduate, postgraduate and higher research degrees.

The proposed research and commercial building is a project co-funded by the Commonwealth Government under the Suburban Jobs Fund with the key objective of facilitating new

sustainable local employment opportunities in new innovative industry sectors. . These uses targets from the proposed building include, research industries, enterprise start-ups and industry partnerships that include employment programs for UWS students which will further the education and research initiatives of the university.

The subject site is zoned 5(a) Special Uses – Tertiary Education under Penrith Local Environmental Plan 1998 (Urban Land). The proposed use of the building for research industries, enterprise start-ups and industry partnerships that include employment programs for UWS students is ordinarily incidental or ancillary to the use of the land as a university and is therefore a permissible form of development with consent in the 5(a) zone. The site is also found within the Werrington Enterprise Living and Learning (WELL) Precinct.

The proposed development is Crown Development and has a capital investment value in excess of \$5 million. As such, the Sydney West Region Joint Planning Panel has the function of determining the application in accordance with Section 23G of the *Environmental Planning and Assessment Act 1979*.

In accordance with Section 2.7 (Notification and Advertising) of *Penrith Development Control Plan 2006*, the proposed development was advertised in the local newspapers and notified to the owners and occupiers of adjoining and nearby properties. A total of 212 property owners and occupiers were notified in the surrounding area. The public exhibition period for the proposal was from 11 March to 25 March 2013 and no submissions were received to the proposal.

An assessment of the proposed development under Section 5A, Section 23G, Section 79C and Section 89 of the *Environmental Planning and Assessment Act 1979* has been undertaken and the proposal has been found to be satisfactory, subject to improved access recommended as a deferred condition of consent. The following key issues have emerged as a result of this assessment process:

- Context and Setting
- Urban Design
- Access, Parking and Traffic
- Environmental Sustainability
- Connection to the National Broadband Network

These matters are discussed in detail in this report.

The proposed development is in accordance with the relevant provisions of the environmental planning instruments and Development Control Plan pertaining to the land. The proposed development is unlikely to have a negative impact on the surrounding environment. The site is only suitable for the proposed development and the proposal is in the public interest. The proposed development seeks to provide opportunities for campus based partnerships with a range of research industries, enterprise start-ups and industry for the students of the University of Western Sydney. The proposal is therefore worthy of support.

Section 89(1) of the *Environmental Planning and Assessment Act 1979* provides that a consent authority cannot refuse a development application without the approval of the Minister, nor impose a condition of consent without the approval of the Minister or the applicant. The applicant has been given the opportunity to review the recommended conditions of consent and an agreement has been reached between both Council and the University of Western Sydney.

*There are six appendices to this report, as detailed below.*

- *Appendix No. 1 – Location Plan*
- *Appendix No. 2 – Site Plan*
- *Appendix No. 3 – Architectural Plans, Sections and Elevations*
- *Appendix No. 4 – Landscape Plans*
- *Appendix No. 5 – Building Perspectives*
- *Appendix 6 – Roads and Maritime Service Concurrence Letter*

## **Background**

The University of Western Sydney Campus has been subject to a number of recent development proposals for a variety of development works. A number of these proposals have been subject to assessment under Part 3A of the Environmental Planning and Assessment Act 1979, and a recent proposal for the construction of library facility within the Kingswood Campus. The Development Application was considered and granted consent by the Sydney West Joint Regional Planning Panel.

The applicant attended a Pre-lodgement Meeting and Urban Design Review Panel Meeting in relation to the subject proposal on 22 January 2013 and 12 December 2012, respectively. The key issues identified by Penrith City Council officers at the pre-lodgement meeting have been addressed as part of the Development Application. The Urban Design Review Panel was supportive of the proposed development and the documentation provided.

## **Site and Surrounds**

The site is located approximately 7km south east of Penrith City Centre. The UWS Werrington South comprises one allotment with a total site area of 47.67 hectares. The Werrington South Campus adjoins the Kingswood campus which is found to the immediate west. The campus is of an irregular shape bounded by the Great Western Highway to the north and O'Connell Street to the south & west (see location plan Appendix 1). Residential dwellings within Claremont Meadows adjoin the property to the east.

The proposed research and commercial building is located 1km east of O'Connell Street, adjacent to the private road access from the Great Western Highway. This area currently is an open grassed area (see location plan Appendix 1). Primary access to the Werrington South campus is available via First Avenue (private road) which intersects with the Great Western Highway.

## **Proposed Development**

The proposed development comprises of the following (see Architectural Plans, Sections Elevations Appendix 3):

- Bulk earthworks;
- Demolition of an existing building (BZ);
- Construction of a three storey commercial/ research building with basement car parking a roof top plant zone incorporating a gross floor area of 6,797m<sup>2</sup>;
- Expansion of the existing car park adjacent to the building to provide an additional 120 spaces;
- Construction of internal service road connecting existing internal roads to the proposed building and expanded car park;

- Connection to physical infrastructure and utilities;
- Construction of a bio-detention basin, stormwater infrastructure works and landscaping;

Operation hours of the research/ commercial building 7:30am to 6pm, Monday to Friday.

### **Crown Development**

The proposed development is a 'crown development' pursuant to Section 116B of the Environmental Planning and Assessment Act 1979 which means that prior to making a determination of a Crown Development Application, Council must furnish the applicant with a copy of the draft conditions of consent for concurrence.

The applicant has been given the opportunity to review the recommended conditions of consent and an agreement has been reached between both Council and the University.

Refer to *Appendix No. 3* for copies of the architectural plans, sections and elevations prepared by University of Western Sydney which include details of the proposed works.

The following documents have accompanied the Development Application:

- Architectural Drawings, Perspectives and Architectural Design Statement, prepared by Architectus Sydney
- External Lighting Plan, prepared by Architectus Sydney
- Site Survey, prepared by Lockley Land Title Solutions
- Traffic and Parking Assessment, prepared by McLaren Traffic Engineering
- Access Report, prepared by Funktion
- Landscape Drawings and Landscape Statement, prepared by Arcadia Landscape Architecture
- Noise Impact Assessment, prepared by Acoustic Consulting Engineers Pty Ltd
- Sustainability Statement, prepared by Umow Lai Enginuity Pty Ltd
- Waste Management Plan, prepared by University of Western Sydney
- Stormwater Management Report and Plans, prepared by Enstruct Group
- Geotechnical Investigation Report, prepared by JK Geotechnics
- Preliminary Fire Engineering Statement, prepared by Defire (NSW) Pty Limited
- Aerial Perspectives, prepared by Architectus Sydney
- Schedule of Colours and Materials, prepared by Architectus Sydney
- Quantity Surveyors Report, prepared by Wild and Woollard Pty Ltd

### **Planning Assessment**

The proposed development has been assessed against the relevant heads of consideration contained in Section 5A, Section 23G, Section 79C and Section 89 of the *Environmental Planning and Assessment Act 1979*, and based on this assessment, the following issues have been identified for further consideration.

#### **1. Section 23G – Joint Regional Planning Panels**

Under Section 23G of the *Environmental Planning and Assessment Act 1979*, a regional panel is taken to be the Council whose functions are conferred on a regional panel.

The proposed development is Crown Development and has a capital investment value in excess of \$5 million. Under Clause 20 of *State Environmental Planning Policy (State and*

*Regional Development*) 2011, a regional panel has the function of determining applications for Crown Development which has a capital investment value in excess of \$5 million. The Sydney West Region Joint Planning Panel therefore has the function of determining the subject Development Application in accordance with Section 23G of the *Environmental Planning and Assessment Act 1979*.

## **2. Section 79C(1)(a)(i) – Any Environmental Planning Instrument**

### ***Penrith Local Environmental Plan 1998 (Urban Land)***

The subject site is zoned *5(a) Special Uses – Tertiary Education* under *Penrith Local Environmental Plan (LEP) 1998 (Urban Land)*. The proposed construction of a research and commercial building relates to the existing university buildings and is therefore a permissible form of development with consent in the *5(a)* zone.

The proposed development is consistent with the aims and objectives of the LEP. The particular objective of the *5(a)* zone is as follows:

*To facilitate certain development on land which is, or is proposed to be, used by public authorities, institutions, organisations or the council to provide and protect services, utilities or transport facilities and associated activities.*

The proposed development satisfies the objective of the *5(a)* zone in that it will provide new facilities to establish partnerships with research industries, enterprise start-ups and industry partnerships for the benefit of students attending the University of Western Sydney.

There are several special provisions contained in the LEP which seek to control development on the site. These provisions are considered below.

#### ***Clause 13 – Environmental Performance***

The location, siting and design of the proposed development will achieve effective environmental performance.

Mechanical noise generation from the building is limited to the air-conditioning system and lifts. The application was referred to Council's Environment Department for comment regarding these elements within the building. Appropriate conditions of consent have been included ensure the implementation of the appropriate acoustic measure to minimise noise transmission and the overall management of noise within the building.

The application was also referred to Council's Engineering Department for comment regarding the management of stormwater discharge. Appropriate conditions of consent have been included ensure the management and treatment of stormwater discharge from the site.

#### ***Clause 14 – Design Principles***

The proposed development is consistent with the required design principles relating to protection of local topography, streetscape and character, compatibility with the scale and design of neighbouring development and provision of contemporary standards of amenity.

An Urban Design Review Panel meeting was held on 12 December 2012 which considered the proposal and determined the following:

- The building is reasonable aesthetically but has a poor interface with the drainage basin and open space on its other side with above ground car parking. This would not be a suitable interface even with the provision of a large bund wall.
- The location of the vehicle ramp cuts the building off from the open space area. The vehicle entry should perhaps be the other side away from the basin and the car parking should be underground or at the very least sleeved behind other uses so it is not the interface.
- The building should provide a commercial frontage or ideally a break out area to the basin edge and ideally the entry should be provided at the lower level so that the open space environment can become part of the entry sequence.
- The building will be on the side of the university campus that has an interface to the residential area beyond so it needs to present a positive face to the street adjacent as it will be highly visible and exposed to that entry street.

Amended architectural plans were prepared in response to the comments, with the applicant being advised that the subsequent prelodgement meeting that the plans have sufficiently responded to these comments.

#### *Clause 28 – Tree Preservation*

The proposed development does not necessitate the removal of any significant vegetation.

A detailed landscape plan has been submitted to provide additional landscaping that rehabilitates disturbed areas of the site and compliments the existing landscaping of the locality, the proposed building, as well as the existing and proposed pedestrian links associated with the development.

#### *Clause 32 – Flood Liable Land*

The subject land is not flood liable or adjacent to flood liable land.

There are no further relevant LEP provisions due to the nature of the proposed building.

#### ***State Environmental Planning Policy (Infrastructure) 2007***

Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007* has identified the development proposal as being traffic generating development, as specified in Column 2 of the Table to Schedule 3. As such, the Development Application was referred to the Roads and Maritime Service for comment.

A Sydney Regional Development Advisory Committee (SRDAC) meeting was held on 1 May 2013 in response to the referral to the Roads and Maritime Services (RMS) required under Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007*.

Concurrence under Section 65 of the Local Government (General) Regulations 2005 has been provided subject to conditions of consent. A copy of the Sydney Regional Development Advisory Committee (SRDAC) requirements has been included within Appendix 6.

#### ***State Environmental Planning Policy No. 55 – Remediation of Land***

*State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55) aims to provide a framework for the assessment, management and remediation of contaminated land

throughout the state. Clause 7(1) of SEPP 55 prevents consent authorities from consenting to a development unless it has considered whether the land is contaminated and is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out.

There is no evidence to suggest that the subject land has previously supported any activities which may have resulted in land contamination and no contaminating activities are currently being undertaken from the site. This information is sufficient to conclude that a Stage 1 Preliminary Site Investigation is not warranted. The provisions of SEPP 55 have therefore been satisfied.

***Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No. 2 – 1997)***

*Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No. 2 – 1997)* (SREP 20) integrates planning with catchment management to protect the Hawkesbury-Nepean river system, requiring the impact of future land use to be considered in a regional context. The plan covers water quality and quantity, environmentally sensitive areas, riverine scenic quality, agriculture, urban and rural-residential development. It controls development that has the potential to impact on the river environment. The plan applies to all parts of the catchment in the Sydney region (15 local government areas, including Penrith), except for land covered by *Sydney Regional Environmental Plan No. 11 – Penrith Lakes Scheme*. SREP 20 is supported by an Action Plan, which includes actions necessary to improve existing conditions.

The proposed development is in accordance with the general planning considerations set out in Clause 5 of SREP 20 and the relevant specific planning policies and related recommended strategies set out in Clause 6. In particular, provision will be made for adequate erosion and sediment control measures to ensure sediment as a result of the development is not deposited in the Hawkesbury-Nepean River via the stormwater system.

Penrith City Council's Development Engineer has reviewed the proposed development regarding stormwater quantity and stormwater quality considerations. In this regard, Council's Development Engineer is satisfied with these aspects of the proposal subject to conditions of consent.

**3. Section 79C(1)(a)(ii) – Any Draft Environmental Planning Instrument**

Stage 2 of the Penrith Planning Proposal outlines that *“this Planning Proposal addresses the matters that are required to deliver a comprehensive Local Environmental Plan (LEP) for Penrith. The Planning Proposal covers all land within the City of Penrith, excluding land covered by State Environmental Planning Policy (Western Sydney Employment Area) 2009 and deemed State Environmental Planning Policy SREP No. 30 – St Marys. It is intended that the Planning Proposal will evolve and develop as agency and community consultation is undertaken”*.

The Penrith Planning Proposal was placed on public exhibition on 13 May 2013 with exhibition finishing on 5 July 2013.

As such the EP&A Act states that the consent authority must consider any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority. The Penrith Planning Proposal is not imminent and as such considerable weight has not been given to the following provisions:

The subject portion of the land is proposed to be re-zoned to *B7 Business Park* under the draft Planning Proposal for Council's Stage 2 City-wide Local Environmental Plan (LEP). The Draft LEP has identified *Information and education facilities* as well as *Business premises* are permitted with consent.

#### **4. Section 79C(1)(a)(iii) – Any Development Control Plan**

##### ***Penrith Development Control Plan 2006***

The proposed development is in accordance with the relevant provisions of *Penrith Development Control Plan 2006*. The most relevant provisions are discussed in this report under the applicable environmental planning instruments or in terms of the likely impacts of the proposed development.

#### **5. Section 79C(1)(b) – The Likely Impacts of the Development**

##### ***Context and Setting***

The proposed development seeks to construct a three storey research and commercial building which includes research and commercial space, atrium, breakout spaces, common kitchen and amenities, lifts and semi basement parking.

Associated with the design of the building is the extension of existing P8 car park and associated pedestrian pathways connecting the car park to the research and commercial building. Significant landscaping and associated drainage works will be implemented with land surround the proposed research and building.

The building to be demolished has no current use that is significant to the operation of the University.

The location of the proposed building and the extension of the existing car park (P8) are sited within the university campus that is currently being underutilised. The location of the building within close proximity of the Great Western Highway, being responsive to available public transport within the locality, while providing large setbacks to the adjoining residential area of Claremont Meadows to protect the amenity current enjoyed by these residents.

The proposed development seeks to provide opportunities for campus based partnerships with a range of research industries, enterprise start-ups and industry for the students of the University of Western Sydney. Targeted sectors include e-Health, Telehealth, Intelligent Infrastructure Engineering, Communication, Media and the Arts.

The provision of such campus based opportunities will benefit students in the form of applied education, research and employment opportunities.

The proposal is therefore compatible with the surrounding and adjacent land uses and will have no major impact on the amenity of the area. The proposal will have no adverse impacts on the natural environment.



## ***Urban Design***

The proposed research and commercial building has been sited within close proximity to the Great Western Highway and existing administration buildings on the campus. The research and commercial building has been designed with a mixture of cement panels, glazed facades, aluminium and glass louvers and translucent polycarbonate panels to provide a modern building aimed at being the gateway structure to the University campus.

The louvered facade of the building provides design elements that assist in reducing the bulk and scale associated with a multistorey building and provides visual interest within the street elements of the building. The transparent form of the building will also provide good levels of active and passive surveillance of pedestrians and ensure CPTED principles are implemented within the design of the development.

The location of the building utilizes an existing open space area within an underutilised area of the campus. The construction of the research and commercial building will activate a greater area of the Werrington South Campus while provided for on campus opportunities for the students through industry and research partnerships. Landscaping structures associated with the building, including the terracing of the open space along the eastern façade of the building, will provide functional outdoor gathering spaces within close proximity of the research and commercial building for collaboration opportunities with University students and staff.

The application has been accompanied by landscape plans which provide for related landscaping works on the site. Refer to Appendix No. 5 for a copy of the landscape plans prepared by Arcadia which includes details of the proposed works. The proposed landscape works will provide for the high-quality embellishment of the site with suitable ground covers, shrubs and trees which, at maturity, will complement the scale, design and function of the development.

## ***Access, Parking and Traffic***

Vehicular access to the University Campus will remain unaltered, with the proposed research building utilising the existing access from the Great Western Highway. The research and commercial building will be located within close vicinity to the P8 car park, which currently contains 300 spaces.

The Traffic and Parking Assessment Report prepared by Parking & Traffic Consultants detailed that 61 car parking spaces are provided within the research and commercial building, including 3 accessible parking spaces, with an additional 120 car parking spaces as an extension to the existing P8 car park.

Penrith City Council's Traffic Engineer has reviewed the proposed development with regard to access, parking and traffic considerations and has provided the following comments:

- The proposal has justified its car parking requirements on the basis of anticipated demand with existing car park occupancy rates for students at UWS used as a basis. Existing campus parking surveys indicate spare capacity is available to absorb the increase number of student vehicles proposed to utilise the facility. Furthermore the proposed provision of 181 spaces exceeds DCP requirements of 138.

- The proposal will produce a consistent increase in local traffic flow; however no substantial traffic impacts are anticipated on the local road network. It is noted that the campus has good public bus transport facilities and students are encouraged to walk to the nearby Kingswood and Werrington railway stations.
- Appropriate bicycle parking facilities should be provided on site to minimise car dependency and encourage the use of this transport mode.
- Parking layout and design must be in accordance with AS 2890.1 and .2 (2004).

The proposed development was referred to the Roads and Maritime Service for consideration under Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007*. A Sydney Regional Development Advisory Committee (SRDAC) meeting was held on 1 May 2013 in response to the referral, with concurrence under Section 65 of the Local Government (General) Regulations 2005 being provided subject to conditions of consent. A copy of the Sydney Regional Development Advisory Committee (SRDAC) requirements has been included within Appendix 6.

The Traffic and Parking Assessment Report details the provision of 42 bicycle parking spaces, which is considered to be appropriate and will promote students, particularly those residing on campus to use alternative forms of transport to motor vehicles.

In summary, the Council's Traffic Engineer and the Roads and Maritime Services are satisfied with the proposed access, parking and traffic related aspects of the proposal subject to the recommended conditions of consent.

### ***Community Safety***

The application was accompanied by an External Lighting Plan, prepared by Architectus Sydney, which considered Crime Prevention through Environmental Design (CPTED) principles of the research and commercial building.

Consideration of the information provided was considered by the Community Safety Coordinator and the Urban Design Review Panel.

The Community Safety Coordinator outlined that the application has addressed and incorporated key Crime Prevention through Environmental Design (CPTED) principles in the development design.

The Urban Design Review Panel raised no concerns regarding the safety and security design aspects of the building.

Appropriate conditions of consent have been included in relation to adequate lighting, signage, landscaping and building maintenance.

### ***Environmental Sustainability***

The proposed development will incorporate a number of sustainability initiatives for reduced water and energy consumption. These include passive solar design and thermal mass of the research and commercial building to minimise heating requirements in winter and cooling requirements in summer, the use of LED lighting and lighting control systems including submetering of the building to calculate lighting, power, water and gas usage. The proposal incorporates rainwater retention and re-uses system for stormwater collection.

A sustainability statement has been provided detailing the proposed development has been designed to target a 5 green star rating and 4.5 NABERS rating.

### ***National Broadband Network***

A briefing meeting was held with the Joint Regional Planning Panel requested clarification on the connection of the Research and Commercial Building to the National Broadband Network.

The University of Western Sydney has been in continual contact with the National Broadband Network regarding the connection status of the university land.

The National Broadband Network has advised the following:

*At this stage the design team have not confirmed, however it looks to be outside the current build, and would likely be included with a subsequent fibre service area module when it is rolled out within the university (no timeframe for this as yet).*

The proposed building will be constructed to enable the connection to the National Broadband Network when the service is available on the site.

### **6. Section 79C(1)(c) – The Suitability of the Site for the Development**

The site attributes are conducive to the proposed development. The proposal has been designed in a manner consistent with the existing character of the site.

### **7. Section 79C(1)(d) – Any Submissions made in relation to the Development**

In accordance with Section 2.7 (Notification and Advertising) of *Penrith Development Control Plan 2006*, the proposed development was advertised in the local newspapers and notified to the owners and occupiers of adjoining and nearby properties. A total of 213 property owners and occupiers were notified in the surrounding area.

The public exhibition period for the proposal was from 11 March to 25 March 2013 and no submissions were received to the proposal.

### ***Referral Comments***

The table below summarises the results of internal Penrith City Council referrals in relation to the proposal.

<b><i>Referrals</i></b>	<b><i>Comments</i></b>
Building Surveyor	No objection, subject to conditions.
Development Engineer	No objection, subject to conditions.
Traffic Engineer	No objection, subject to conditions.
Environmental Management	No objection, subject to conditions.
Public Health	No objection, subject to conditions.
Landscape Architect	No objection, subject to conditions.
Community Safety Officer	No objection, subject to conditions.

## **8. Section 79C(1)(e) – The Public Interest**

The site is suitable for the proposed development, subject to it adequately responding with access provisions. The proposed development is permissible in the 5(a) zone and the proposal meets the aims and objectives of the relevant environmental planning instruments. No submissions were received regarding the proposed development.

## **9. Section 89 – Crown Development Applications**

The proposed development is Crown Development as the applicant is the University of Western Sydney, which is a statutory state government authority. Applicants for Crown Development are exempted from the requirement to obtain Construction and Occupation Certificates.

In accordance with Section 89(1)(b) of the *Environmental Planning and Assessment Act 1979*, draft conditions of consent (as documented in this report) were forwarded to the applicant for consideration and concurrence with these conditions has been provided by the University of Western Sydney.

## **Section 94 Contributions**

The following Section 94 contributions plans are applicable to the subject site:

- Penrith City Kingswood Neighbourhood Centre
- Penrith City Footpath Construction Established Residential Areas
- Werrington Enterprise Living and Learning (WELL) Precinct Plan 2008

While the Penrith City Kingswood Neighbourhood Centre and the Penrith City Footpath Construction Established Residential Areas contribution plans apply to the site, they are not applicable to this form of development.

Consideration of the Werrington Enterprise Living and Learning (WELL) Precinct Plan 2008 outlines contributions relation to Transport management facilities apply to the development.

Appropriate conditions of consent have been included in relation to the payment of Section 94 contributions, prior to the occupation of the building, relating to the provision of transport management facilities.

## **Conclusion**

The proposed development is in accordance with the relevant provisions of the environmental planning instruments and Development Control Plan pertaining to the land. The proposed development is unlikely to have a negative impact on the surrounding environment through the appropriate conditioning of the development consent. The proposed development seeks to provide a gateway building that will provide collaborative partnerships between the University of Western Sydney and industry.

The proposed development has been assessed against the relevant heads of consideration contained in Section 5A, Section 23G, Section 79C and Section 89 of the *Environmental Planning and Assessment Act 1979* and has been found to be satisfactory. The site is suitable for the proposed development and the proposal is in the public interest. The proposal is therefore worthy of support, subject to the conditions of consent.

## **Recommendation**

---

That:

1. The information contained in the report on Development Application No. DA13/0161 for the Construction of a Three Storey Research & Commercial Building, Service Road, Car Parking, Stormwater Drainage Works & Landscaping at the University of Western Sydney, Werrington South Campus, Lot 14 DP 850402 Great Western Highway, Kingswood be supported for approval subject to the following conditions:

### **Standard Conditions**

#### **2.01 A003**

The development must be implemented substantially in accordance with the stamped approved plans issued by Penrith City Council and other plans or documents approved by Council, except as may be amended in red on the attached plans and by the following conditions:

<b>Drawing Title</b>	<b>Drawing No.</b>	<b>Issue</b>	<b>Prepared by</b>	<b>Dated</b>
Site Plan	DA0006	G	Architectus	26.2.2013
Basement Level Plan	DA1000	J	Architectus	11.6.2013
Ground Floor Plan	DA1001	H	Architectus	11.6.2013
Level 1 Floor Plan	DA1002	F	Architectus	8.4.2013
Level 2 Floor Plan	DA1003	F	Architectus	8.4.2013
Roof/ Plant Level Plan	DA1004	F	Architectus	8.4.2013
Roof Plan	DA1005	C	Architectus	8.4.2013
North Elevation	DA2000	E	Architectus	11.6.2013
East Elevation	DA2001	E	Architectus	11.6.2013
South Elevation	DA2002	E	Architectus	11.6.2013
West Elevation	DA2003	E	Architectus	11.6.2013
Building Section 1	DA2004	H	Architectus	11.6.2013
Building Section 2	DA2005	F	Architectus	11.6.2013

#### **2.02 A017 - DA for Use**

Prior to occupation of the building or a tenancy within the building for any use other than a commercial office, a separate development approval is to be obtained from Penrith City Council to use the building or each tenancy within the building/complex.

#### **2.03 A038 – Lighting Location**

Exterior lighting shall be located and directed in such a manner so as not to create a nuisance to surrounding residential land uses. The lighting shall be the minimum level of illumination necessary for safe operation. The lighting shall be in accordance with AS 4282 “Control of the obtrusive effects of outdoor lighting” (1997).

#### **2.04 A039 – Graffiti**

The finishes of all structures and buildings are to be maintained at all times and any graffiti or

vandalism immediately removed/repaired.

#### **2.05 B001 – Demolition of existing structures**

The existing building, referred to as BZ on the campus plan is to be demolished as part of the approved work.

#### **2.06 B002 – AS for demolition and disposal to approved landfill site**

All demolition works are to be conducted in accordance with the provisions of AS 2601-1991 “The Demolition of Structures”. Prior to demolition, all services shall be suitably disconnected and capped off or sealed to the satisfaction of the relevant service authority requirements.

All demolition and excavated material shall be disposed of in accordance with the approved waste management plan for the development.

#### **2.07 B003 – Asbestos**

You should read Council’s Fact Sheet titled “Handling and Disposal of Fibrous Cement Products” before any demolition works commence on the site.

Prior to commencement of demolition works on site, a portaloo with appropriate washing facilities shall be located on the site and the Principal Certifying Authority is to be satisfied that:

- Measures are in place so as to comply with the WorkCover Authority’s “Short Guide to Working with Asbestos Cement” and
- The person employed to undertake the works is a licensed asbestos removal contractor and is holder of a current WorkCover Asbestos Licence.

Any demolition works involving the removal of all asbestos shall only be carried out by a licensed asbestos removal contractor who has a current WorkCover Asbestos Licence.

All asbestos laden waste, including asbestos cement flat and corrugated sheeting must be disposed of at a tipping facility licensed by the Environmental Protection Authority to receive asbestos wastes.

#### **2.8 D001 – Implement approved sediment and erosion control measures**

Erosion and sediment control measures shall be installed prior to the commencement of works on site including approved clearing of site vegetation. The erosion and sediment control measures are to be maintained in accordance with the approved erosion and sediment control plan(s) for the development and the Department of Housing’s “Managing Urban Stormwater: Soils and Construction” 2004.

(Note: To obtain a copy of the publication, you should contact Landcom on (02) 9841 8600).

The approved sediment and erosion control measures are to be installed prior to and maintained throughout the construction phase of the development until the landscaping, driveway and on-site parking areas have been completed for the development. These measures shall ensure that mud and soil from vehicular movements to and from the site does not occur during the construction of the development.

## **2.9 D002 – Spraygrass**

All land that has been disturbed by earthworks is to be spraygrassed or similarly treated to establish a grass cover.

## **2.10 D006A – No filling without prior approval**

No fill material shall be imported to the site until such time as a Validation Certificate (with a copy of any report forming the basis for the validation) for the fill material has been submitted to Council. The Validation Certificate shall:

- state the legal property description of the fill material source site,
- be prepared by an appropriately qualified person (as defined in Penrith Contaminated Land Development Control Plan) with consideration of all relevant guidelines (e.g. EPA, ANZECC, NH&MRC), standards, planning instruments and legislation,
- clearly indicate the legal property description of the fill material source site,
- provide details of the volume of fill material to be used in the filling operations,
- provide a classification of the fill material to be imported to the site in accordance with the Environment Protection Authority's "Environmental Guidelines: Assessment, Classification & Management of Non-Liquid Wastes" 1997, and
- (based on the fill classification) determine whether the fill material is suitable for its intended purpose and land use and whether the fill material will or will not pose an unacceptable risk to human health or the environment.

An appropriately qualified person/s (as defined in the Penrith City Council Contaminated Land Development Control Plan) shall:

- Supervise the filling works,
- (On completion of filling works) carry out an independent review of all documentation relating to the filling of the site, and shall submit a review findings report to Council,
- Certify by way of a Compliance Certificate or other written documentation that fill materials have been placed on the site in accordance with all conditions of this consent and that the site will not pose an unacceptable risk to human health or the environment. A copy of the Compliance Certificate or other documentation shall be submitted to Council.

The contact details of any appropriately qualified person/s engaged for the works shall be provided with the Notice of Commencement.

If Penrith City Council is not satisfied that suitable fill materials have been used on the site, further site investigations or remediation works may be requested. In these circumstances the works shall be carried out prior to any further approved works.

{Note: Penrith Contaminated Land Development Control Plan defines an appropriately qualified person as "a person who, in the opinion of Council, has a demonstrated experience, or access to experience in hydrology, environmental chemistry, soil science, eco-toxicology, sampling and analytical procedures, risk evaluation and remediation technologies. In addition, the person will be required to have appropriate professional indemnity and public risk insurance."}

## **2.11 D008 – Filling compaction**

Where a building is to take place on any land that is to be filled, such filling is to be compacted in accordance with AS3798-1996. Certification is to be submitted to Penrith Council by a Geotechnical Engineer verifying that the work has been undertaken prior to the commencement of the construction of any building.

#### **2.12 D009 – Covering of waste storage area (Applies to building works/demolition)**

All waste materials stored on-site are to be contained within a designated area such as a waste bay or bin to ensure that no waste materials are allowed to enter the stormwater system or neighbouring properties. The designated waste storage areas shall provide at least two waste bays / bins so as to allow for the separation of wastes, and are to be fully enclosed when the site is unattended.

#### **2.13 D010 - Appropriate disposal of excavated or other waste**

All excavated material and other wastes generated as a result of the development are to be re-used, recycled or disposed of in accordance with the approved waste management plan.

Waste materials not specified in the approved waste management plan are to be disposed of at a lawful waste management facility.

All receipts and supporting documentation must be retained in order to verify lawful disposal of materials and are to be made available to Penrith City Council on request.

#### **2.14 D014 – Plant and equipment noise**

The operating noise level of plant and equipment shall not exceed 5dB(A) above the background noise level when measured at the boundaries of the premises. The provisions of the Protection of the Environment Operations Act 1997 apply to the development, in terms of regulating offensive noise.

#### **2.17 D026 – Liquid Waste**

Only clean and unpolluted water is to be discharged into Penrith City Council's stormwater drainage system. Liquid wastes suitable for discharge to the mains sewer are to be discharged in accordance with Sydney Water requirements.

If mains sewer is not available or if Sydney Water will not allow disposal to the sewer then a licensed waste contractor is to remove the liquid waste from the premises to an appropriate waste facility.

The waste contractor and waste facility are to hold the relevant licenses issued by the NSW Environment Protection Authority.

#### **2.18 E01A – BCA compliance for Class 2-9**

All aspects of the building design shall comply with the applicable performance requirements of the Building Code of Australia so as to achieve and maintain acceptable standards of structural sufficiency, safety (including fire safety), health and amenity for the on-going benefit of the community. Compliance with the performance requirements can only be achieved by:

- a) complying with the deemed to satisfy provisions, or
- b) formulating an alternative solution which:



- complies with the performance requirements, or
  - is shown to be at least equivalent to the deemed to satisfy provision, or
- c) a combination of (a) and (b).

It is the owner's responsibility to place on display, in a prominent position within the building at all times, a copy of the latest fire safety schedule and fire safety certificate/ statement for the building.

## **2.19 E002 – BCA Issues to be addressed**

A preliminary assessment of the plans submitted with the application has disclosed that the following design and/or construction issues need to be addressed prior to the commencement of construction to ensure compliance with the Building Code of Australia:

- Extended travel distances, discharge of fire stairs and the provision of accessible toilets on all levels need to be detailed on the construction plans.

## **2.20 E006 - Disabled access and facilities**

Access and sanitary facilities for persons with disabilities are to be provided and maintained in accordance with the requirements of the Building Code of Australia, AS1428-2009 "Design for Access and Mobility" and the Disability (Access to Premises) Standards 2010. Details of compliance are to be outlined in the relevant construction drawings and specifications prior to the commencement of construction works.

## **2.21 E009 - Annual fire safety-essential fire safety (Class 2-9 buildings)**

The owner of a building, to which an essential fire safety measure is applicable, shall provide Penrith City Council with an annual fire safety statement for the building. The annual fire safety statement for a building must:

- a) deal with each essential fire safety measure in the building premises, and
- b) be given:
  - within 12 months after the last such statement was given, or
  - if no such statement has previously been given, within 12 months after a final fire safety certificate was first issued for the building.

As soon as practicable after the annual fire safety statement is issued, the owner of the building to which the statement relates:

- must also provide a copy of the statement (together with a copy of the current fire safety schedule) to the Commissioner of New South Wales Fire Brigades, and
- prominently display a copy of the statement (together with a copy of the current fire safety schedule) in the building.

## **2.22 G002 – Section 73 Compliance Certificate**

A Section 73 Compliance Certificate under the Sydney Water Act 1994 shall be obtained from Sydney Water. The application must be made through an authorised Water Servicing Coordinator. Please refer to the "Your Business" section of Sydney Water's website at [www.sydneywater.com.au](http://www.sydneywater.com.au) then the "e-developer" icon, or telephone 13 20 92.

The Section 73 Compliance Certificate must be obtained **prior to the completion of the research and commercial building.**

## **2.23 G004 – Endeavour Energy**

Prior to the commencement of construction works, a written clearance is to be obtained from Endeavour Energy stating that electrical services have been made available to the development or that arrangements have been entered into for the provision of services to the development.

In the event that a padmounted substation is necessary to service the development, Penrith City Council shall be consulted over the proposed location of the substation before the commencement of construction as the location of the substation may impact on other services and building, driveway or landscape design already approved by Council.

## **2.24 H041 – Hours of work (other development)**

All demolition and construction works that involve the use of heavy vehicles, heavy machinery and other equipment likely to cause offence to adjoining properties, are restricted to the following hours in accordance with the NSW Department of Environment and Climate Change's (2009) "Interim Construction Noise Guideline":

- Mondays to Fridays 7am to 6pm
- Saturdays, 7am to 1pm (if audible on neighbouring residential premises),
- No work is permitted on Sundays and Public Holidays.

Other construction works that are carried out inside a building that do not involve the use of equipment that emits noise are not restricted to the construction hours stated above.

The provisions of the Protection of the Environment Operations Act, 1997 in regulating offensive noise also apply to all construction works.

## **2.25 H001 – Stamped plans & erection of site notice 1 (Class 2-9)**

Stamped plans, specifications, a copy of the development consent and any other Certificates/Information to be relied upon shall be available on site at all times during construction.

The following details are to be displayed in a maximum of 2 signs to be erected on the site:

- the name of the person in charge of the work site and telephone number at which that person may be contacted during work hours,
- that unauthorised entry to the work site is prohibited,
- the designated waste storage area must be covered when the site is unattended, and
- all sediment and erosion control measures shall be fully maintained until completion of the construction phase.

Signage but no more than 2 signs stating the above details is to be erected:

- at the commencement of, and for the full length of the, construction works onsite, and
- in a prominent position on the work site and in a manner that can be easily read by pedestrian traffic.

All construction signage is to be removed when the construction and associated landscaping works have been completed.

## **2.26 H002 - All forms of construction**

Prior to the commencement of construction works:

- a) Toilet facilities at or in the vicinity of the work site shall be provided at the rate of one toilet for every 20 persons or part of 20 persons employed at the site. Each toilet provided must be:
  - a standard flushing toilet connected to a public sewer, or
  - if that is not practicable, an accredited sewage management facility approved by the council, or
  - alternatively, any other sewage management facility approved by council.
- b) All excavations and backfilling associated with the erection or demolition of a building must be executed safely and in accordance with the appropriate professional standards. All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.
- c) If an excavation associated with the erection or demolition of a building extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation to be made:
  - must preserve and protect the building from damage, and
  - if necessary, must underpin and support the building in an approved manner, and
  - must, at least 7 days before excavating below the level of the base of the footings of a building on an adjoining allotment of land, give notice of intention to do so to the owner of the adjoining allotment of land and furnish particulars of the excavation to the owner of the building being erected or demolished.

The owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land, (includes a public road and any other public place).

- d) If the work involved in the erection or demolition of a building is likely to cause pedestrian or vehicular traffic in a public place to be obstructed or rendered inconvenient, or involves the enclosure of a public place, a hoarding or fence must be erected between the work site and the public place:
  - if necessary, an awning is to be erected, sufficient to prevent any substance from, or in connection with, the work falling into the public place,
  - the work site must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place, and
  - any such hoarding, fence or awning is to be removed when the work has been completed.

## **2.27 K209 – Stormwater Concept Plan**

The stormwater drainage system and on-site detention system shall be provided generally in accordance with the concept plan/s lodged for development approval, prepared by Enstruct Group, drawing numbers 509-C-100, 4509-C-101, 4509-C-102, 4509-C-103, 4509-C-400, 4509-C-550. Revision 03, dated 25 February 2013.

The proposed development and stormwater drainage system shall be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties.

Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified person and shall be submitted to Penrith Council prior to the commencement of construction works.

Certification shall be provided to Penrith Council by a suitable qualified engineer, prior to the commencement of construction works ensuring that the stormwater drainage system has been designed in accordance with Penrith City Council's Design Guidelines and Construction Specification for Civil Works.

#### **2.28 K213 – Water Quality**

Stormwater runoff from parking, uncovered paved areas shall be directed to a stormwater pre-treatment system. The treatment devices shall be designed to remove expected pollutant loadings in accordance with the Department of Environment, Climate Change & Water's 'Managing Urban Stormwater – Environmental Targets/ Treatment Techniques– October 2007' publications.

Specification & installation details of the stormwater pre-treatment system and an operation and maintenance manual/ schedule for the proposed device are to be submitted to Penrith City Council prior to the commencement of construction works.

#### **2.29 K221 – Access, Car parking and Manoeuvring**

Prior to the commencement of works, a suitably qualified person is to ensure that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with the subject development are in accordance with AS 2890.1, AS2890.2, AS2890.6 and Penrith City Council's Development Control Plan.

#### **2.30 K222 – Access, Car Parking and Manoeuvring – Minor Development**

Prior to the commencement of works, a suitably qualified person is to ensure that:

- a) Off street access and parking complies with AS2890.1.
- b) Vehicular access and internal manoeuvring has been designed for a Medium Rigid vehicle in accordance with AS2890.2.
- c) Sight Distance at the street frontage has been provided in accordance with AS 2890.1.
- d) All cars can enter and exit the site in a forward direction.

#### **2.31 K301 - Sediment & Erosion Control - Installation**

Prior to the commencement of works on site, including approved clearing of site vegetation, erosion and sediment control measures shall be installed. The erosion and sediment control measures are to be installed in accordance with the approved erosion and sediment control plan(s) for the development and the Department of Housing's "Managing Urban Stormwater: Soils and Construction" 2004.

#### **2.32 K406 – Drainage Connection**

Prior to the connection of private drainage to Council's drainage system, an inspection is to be carried out by Penrith City Council's Development Engineering Unit. A fee will be charged in accordance with Council's adopted Fees and Charges, and is to be paid prior to the inspection.

#### **2.33 K501 – Roads Authority clearance**

After completion of all civil works, an original set of works-as-executed drawings and compliance documentation shall be submitted to the Penrith City Council in accordance with Penrith City Council's Design Guidelines and Construction Specification for Civil Works.

#### **2.34 K502 – Works as Executed**

After completion of all civil works, an original set of works-as-executed drawings and compliance documentation shall be submitted to the Penrith City Council in accordance with Penrith City Council's Design Guidelines and Construction Specification for Civil Works.

#### **2.35 K503 – Stormwater Compliance**

Prior to the use of the Research & Commercial Building, an appropriately qualified stormwater engineer shall ensure the following:

- a) On-site detention system/s
- b) Stormwater pre-treatment system/s
  - Have been satisfactorily completed in accordance with the approved stormwater design and the requirements of this consent.
  - Have met the design intent with regard to any construction variations to the approved design.
  - Any remedial works required to been undertaken have been satisfactorily completed.

Details of the approved and constructed system/s shall be provided as part of the works-as-executed drawings.

The proprietor of the burdened lot shall not:

- (a) Erect, construct or place any building or other structure,
- (b) Make alterations to the ground surface levels, grates, pipes, pits, kerbs, tanks, gutters or any other structure associated with the on-site detention system,

Within the land so burdened without the prior written consent of Penrith City Council.

The proprietor of the burdened lot from time to time shall do all things necessary to maintain, repair and replace the grates, pipes, pits, kerbs, tanks, gutters or any other structures of and incidental to the stormwater detention system within the land so burdened to the satisfaction of Penrith City Council and in this regard must also comply with any reasonable written request of the Council within such time period nominated.

Where the proprietor of the burdened lots fails to comply with any written request of the Penrith City Council referred to in (1) above the proprietor shall meet any reasonable cost incurred by the Council in completing the work requested.

Full and free right for the Penrith City Council and every person authorised by it to enter upon the burdened lot in order to inspect, maintain, cleanse, replace, repair any grates, pipes, pits, kerbs, tanks, gutters or any other structure or alter surface levels to ensure the on-site detention system within the land so burdened functions in accordance with the approved Development Application (DA13/0161).

#### **2.36 K509 – Directional Signage**

Prior to the use of the building, a suitably qualified person is to ensure that directional signage and linemarking shall be installed indicating directional movements and the location of customer parking to the satisfaction of the Principal Certifying Authority.

### **2.37 L001 – General Landscaping**

~ **Prior to the commencement of landscape construction works**, a revised landscape plan shall be submitted and approved by Penrith City Council reflecting the site layout shown on the approved site plan (Drawing No. DA0006 Issue G, dated 26 February 2013 prepared by Architectus). The plan shall be consistent with Section 2.6 (Landscape) of Penrith Development Control Plan 2006.

All landscape works are to be constructed in accordance with the approved landscaped plan and Sections F5 "Planting Techniques", F8 "Quality Assurance Standards" and F9 "Site Management Plan" of Penrith Council's Landscape Development Control Plan.

Landscaping shall be maintained:

- in accordance with the approved plan, and
- in a healthy state, and in perpetuity by the existing or future owners and occupiers of the property.

If any of the vegetation comprising that landscaping dies or is removed, it is to be replaced with vegetation of the same species and, to the greatest extent practicable, the same maturity, as the vegetation, which died or was removed.

### **2.38 L005 – Planting of plant material (Applies to most building/subdivision, not fitouts)**

All plant material associated with the construction of approved landscaping is to be planted in accordance with the Tree Planting Specification prescribed in Penrith Council's Landscape Development Control Plan.

### **2.39 L006 - AS requirements (Applies to most building/subdivision, not fitouts)**

All landscape works are to meet industry best practice and the following relevant Australian Standards:

- AS 4419 Soils for Landscaping and Garden Use,
- AS 4454 Composts, Soil Conditioners and Mulches, and
- AS 4373 Pruning of Amenity Trees.

### **2.40 L007 - Tree Protection Measures**

All trees that are required to be retained as part of the development are to be protected in accordance with the minimum tree protection standards prescribed in section F4 of Council's Landscape Development Control Plan.

### **2.41 L008 – Tree Preservation Order**

No trees are to be removed, ringbarked, cut, topped or lopped or wilfully destroyed (other than those within the proposed building footprint or as shown on the approved plans) without the prior consent of Penrith City Council and in accordance with Council's Tree Preservation Order and Policy.

## 2.42 Section 94 Contributions

This condition is imposed in accordance with Penrith City Council's Section 94 Contributions Plan(s) for WELL UWS & TAFE Employ Area Roadworks. Based on the current rates detailed in the accompanying schedule attached to this Notice, \$121,006.00 is to be paid to **Council prior to the occupation of the building** (the rates are subject to quarterly reviews). If not paid within the current quarterly period, this contribution will be reviewed at the time of payment in accordance with the adopted Section 94 plan. The projected rates of this contribution amount are listed in Council's Fees and Charges Schedule.

Council should be contacted prior to payment to ascertain the rate for the current quarterly period. The S94 invoice accompanying this consent should accompany the contribution payment.

The Section 94 Contributions Plan for WELL UWS & TAFE Employ Area Roadworks may be inspected at Council's Civic Centre, 601 High Street, Penrith.

### Special Conditions

#### Roads and Maritime Service

- 2.43 The subject property is affected by a road proposal as shown by pink colours on the
- 2.44 All works/regulatory signposting associated with the proposed development are to be at no cost to the Roads and Maritime Service (RMS).
- 2.45 A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council prior to the issue of the Construction Certificate.
- 2.46 Detailed design plans and hydraulic calculations of any changes to the stormwater drainage system are to be submitted to Roads and Maritime Service (RMS) for approval, prior to the commencement of any works.

Details should be forwarded to:  
The Sydney Asset Management  
Roads and Maritime Services  
PO Box 973 Parramatta CBD 2124.

A plan checking fee will be payable and a performance bond may be required before Roads and Maritime Service (RMS) approval is issued. With regard to the Civil Works requirement please contact the RMS's Project Engineer, External Works Ph: 8849 2114 or Fax: 88492766.

- 2.47 The developer shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.
- 2.48 All vehicles are to enter and leave the site in a forward direction.

- 2.49 All construction vehicles are to be contained wholly within the site and vehicles must enter the site before stopping. A construction zone will not be permitted on the Great Western Highway.
- 2.50 The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1-2004 and AS 2890.2 - 2002 for heavy vehicle usage.
- 2.51 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. In this regard, a plan shall be submitted to Council for approval, which shows that the proposed development complies with this requirement.

#### Landscaping

- 2.52 The approved landscape plans are to be amended to include the following:
- The plant schedule is to be amended to reflect plant species appropriate to Western Sydney conditions eg. clay soils, frost
  - No shrubs greater than 0.5m to be located in wetland matrix plantings beside the internal roadway. Regular pruning and maintenance will be necessary to ensure clear sight lines are maintained.
  - The proposed species on the southern side of the building are considered to be in full shade. Inappropriate species shown within this area should be replaced with Eucalyptus species appropriate to the locality.
  - The formal Ficus plantings along Great Western Highway are to be retained and complemented with an informal approach to canopy plantings along this edge of the Great Western Highway. Views from the Great Western Highway should penetrate into the site, through gaps in boundary plantings.
  - A wall of canopy trees is to be replaced with a clustering of tree plantings in and around the Ficus. Tree clusters should be located as mindful to future UWS developments and sightlines from the Highway.
  - The proposed setout of trees at road intersections and pedestrian crossings shall be appropriately set back to be safe in terms of sightlines/sight distance to oncoming traffic.
  - The proposed setout of street trees shall be spaced to not impact adversely on street lighting
  - The proposed setout of *Corymbia maculata* shall be minimum 2m setback from both kerbs and footpaths.
  - Additional shade planting to be provided to the pedestrian paths that are affected by the afternoon sun.

Details are to be submitted to Penrith City Council for approval prior to the commencement of landscaping works on the site.

- 2.53 Prior to the commencement of landscaping works, construction details relating to bio-retention pond, edge treatments, decks and other structures relating to the landscaping works are to be submitted to Penrith Council for approval.

#### Bike storage



- 2.54 The provision of any off-road shared-use paths or on road bicycle lanes are to be in accordance with the relevant sections of *Part 6A Austroads Guide to Road Design - Pedestrian and Cyclist Paths*; *Austroads Cycling Aspects of Austroads Guides*; and the *NSW Bicycle Guidelines*.

The provision of secure bicycle parking at the facility is to be in accordance with *AS2890.3:1993 Bicycle Parking Facilities*.

#### Lighting and Community Safety

- 2.55 Lighting is to have a wide beam of illumination, which reaches to the beam of the next light.
- 2.56 Lighting within all carparks which are to be utilised by people accessing the research building at night, should also be designed/ upgraded to minimise dark areas.
- 2.57 All lighting fixtures are to be lighting is vandal resistant and are to be located t take into account existing and proposed vegetation/ landscaping so that lighting effectiveness is not impeded.
- 2.58 Outdoor terrace furniture should be secured or stored away over night to minimise opportunities for vandalism and theft.

#### Signage

- 2.59 The main pedestrian route from the research building to other key sections of the campus should be indicated with appropriate signage.
- 2.60 Signs essential for night time use are to be illuminated.

#### Maintenance

- 2.61 Procedures must be in place to ensure the prompt removal and/or repair of graffiti or vandalism to the building and surrounds. This includes reporting incidents to police and/ or relevant authorities.
- 2.62 Graffiti resistant coatings must be used to external surfaces where possible.

#### Construction

- 2.63 Construction works shall be carried out in accordance with the NSW Department of Environment and Climate Change's (2009) "Interim Construction Noise Guideline".
- 2.64 The recommendations, including the advisory recommendations of the Access Report, prepared by Funktion dated February 2013 are to be implemented within the design of the research building.

#### Environmental Management

- 2.65 The contents of the existing septic tank shall be removed by a licensed waste contractor and deposited to an approved waste facility. The disconnected tank shall be removed, demolished or filled with clean soil and garden lime. Documentation of

the collection and disposal of waste are to be retained and provided to Council upon request.

- 2.66 The provisions of the Protection of the Environment Operations Act 1997 in regulating offensive noise also apply to construction works.
- 2.67 Prior to the commencement of construction, the Acoustic report prepared by Acoustic Consulting Engineers dated February 2013 (Ref. 120323-04R-DD) is to be amended and submitted to Penrith City Council for consideration, which addresses the following:
- Calculations should be undertaken to confirm the maximum noise emission levels of all plant and equipment that should be installed so that the noise criteria can be achieved.
  - The impact of the noise from the proposed kiosk transformer should be assessed.
  - The impact of noise associated with delivery vehicles and waste disposal vehicles should be assessed.
  - An assessment of the noise associated with the use of the car parks, including the semi-basement car park and the extension to the existing car park. This should consider the noise produced by vehicle movements, vehicle doors opening and closing, and pedestrian movements within the car parks.
  - An assessment of the noise impact on the adjacent university facilities, including whether the recommended design sound levels in the facilities can be achieved, as per *AS 2107:2000 Acoustics-Recommended design sound levels and reverberation times for building interiors*.
- 2.68 A Construction Noise Management Plan is to be prepared and submitted to Council for approval **prior to the issue of the commencement of works on the site**. This Plan is to consider the relevant guideline documents, including the NSW Department of Environment and Climate Change's (2009) "Interim Construction Noise Guideline", and the recommendations contained in Section 6.3 of the "Environmental Noise Assessment" prepared by Acoustic Consulting Engineers dated February 2013 (Ref. 120323-04R-DD). This Plan is to be implemented and adhered to during the construction phase of the development.
- 2.69 The operating hours of the facility are between 7.30am and 6.00pm. Deliveries and garbage collection are to occur within daylight hours.
- 2.70 The stormwater treatment devices shall be designed to remove expected pollutant loadings in accordance with the Council's environmental pollutant retention criteria outlined in Council's DCP 2010.
- 2.71 Stormwater quantity and quality modelling shall be undertaken applying the Model for Urban Stormwater Improvement and Conceptualisation (MUSIC) to estimate runoff volumes and loads of common stormwater pollutants including Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN). The modelling shall be completed to inform development of a stormwater treatment train for the development site. The design must meet the following environmental pollutant retention criteria:
- 85% Suspended solids

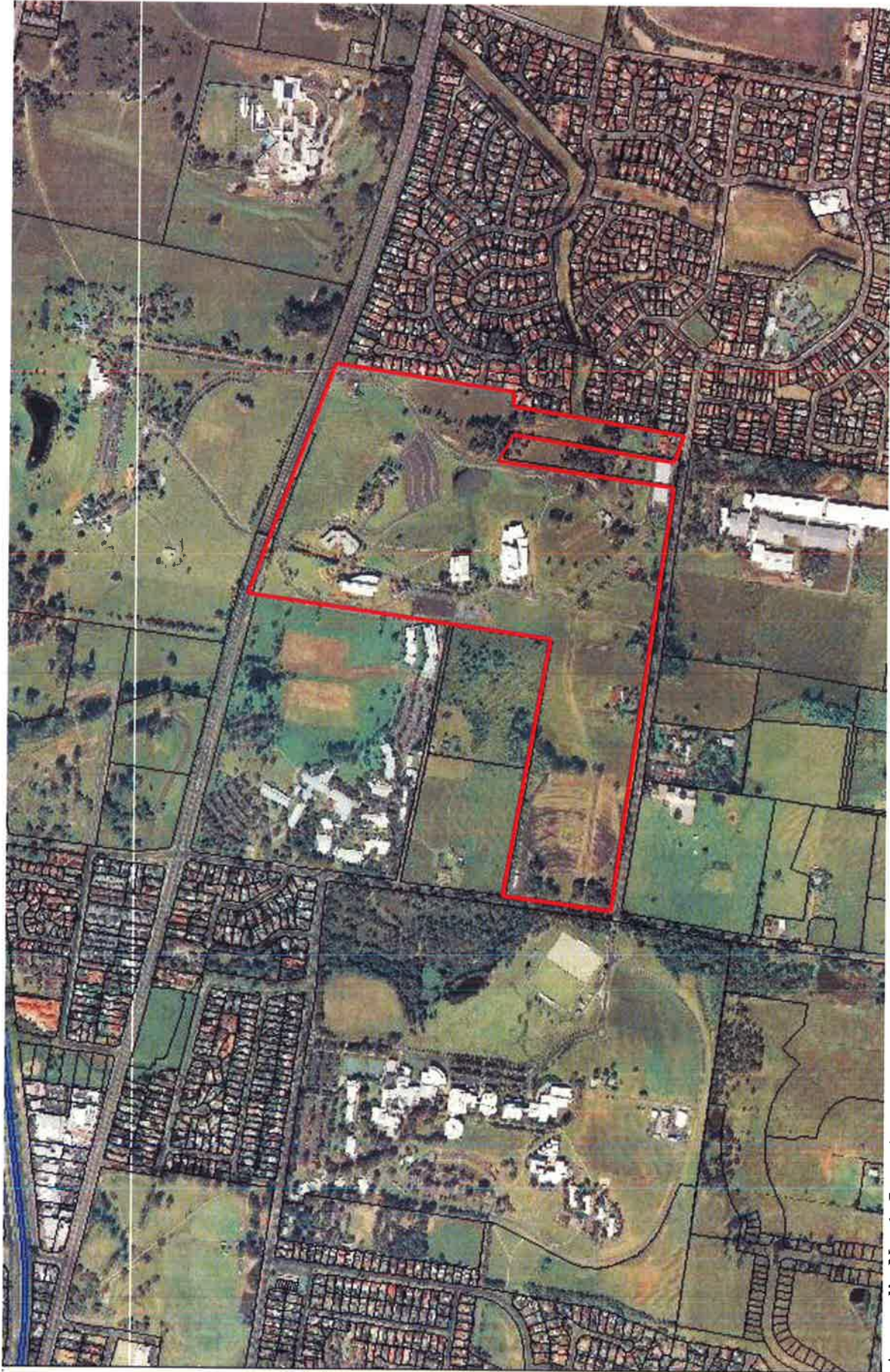
- 65% Phosphorus
- 45% Nitrogen

Modelling parameters for the determination of the size and configuration of WSUD elements must be in accordance with MUSIC Modelling Guidelines for New South Wales (eWater User Guide which is provided with the MUSIC Software (2011).

Electronic copies of the modelling and detailed designs of the stormwater treatment measures are to be submitted to Council prior to the commencement of work.

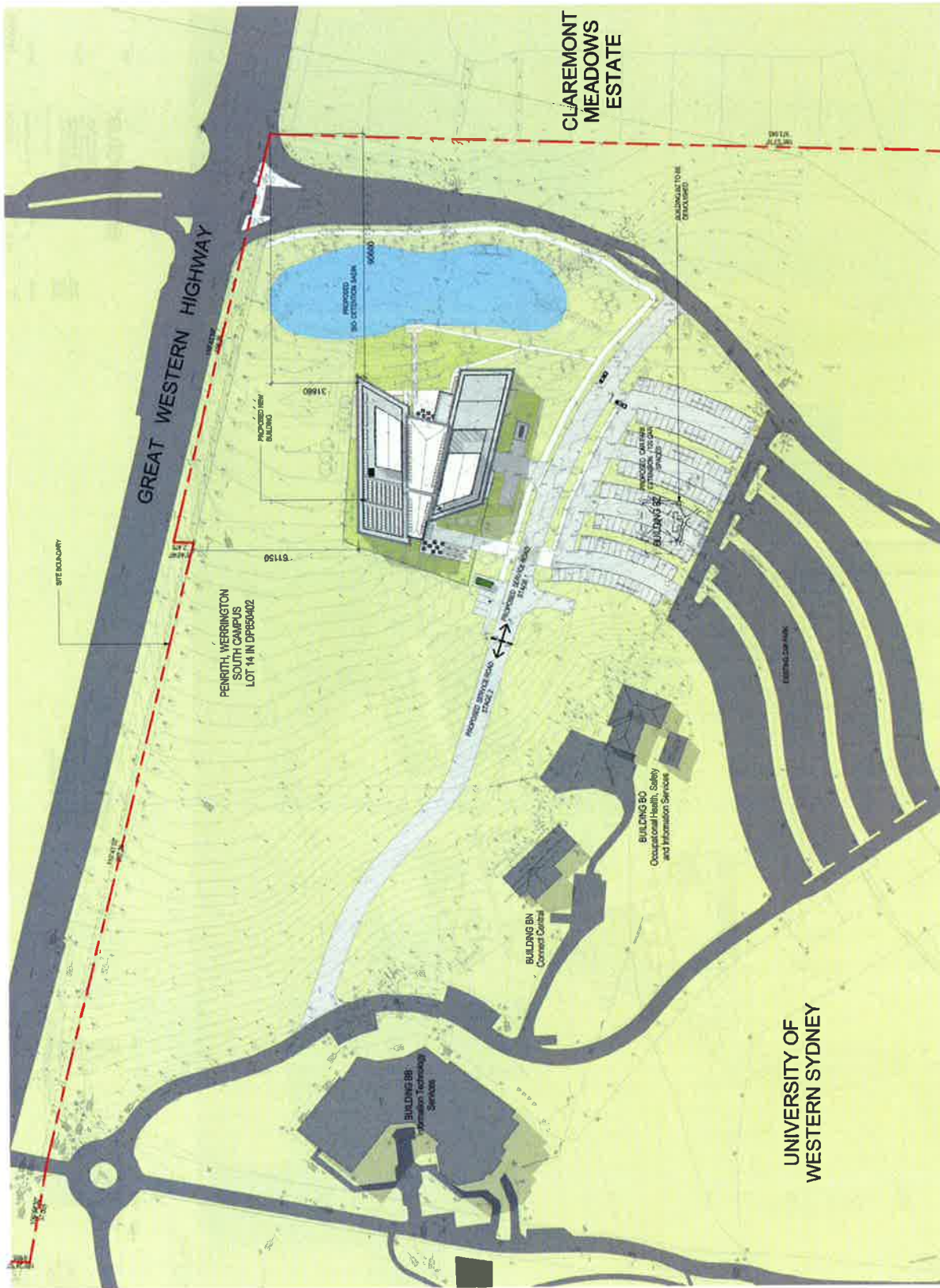
Specification & installation details of the stormwater pre-treatment system and an operation and maintenance manual / schedule for the proposed devices and treatment measures are to be submitted to Penrith City Council prior to the commencement of construction works.





Appendix No. 1- Location Plan





**1** Site Plan  
Scale: 1:750

architectus Sydney 2012

Architectus Sydney Pty Ltd is the owner of the copyright in this document. It is not to be reproduced or used in whole or in part without the written permission of Architectus Sydney Pty Ltd. Any unauthorised use of this document is a breach of the Copyright Act 1968.

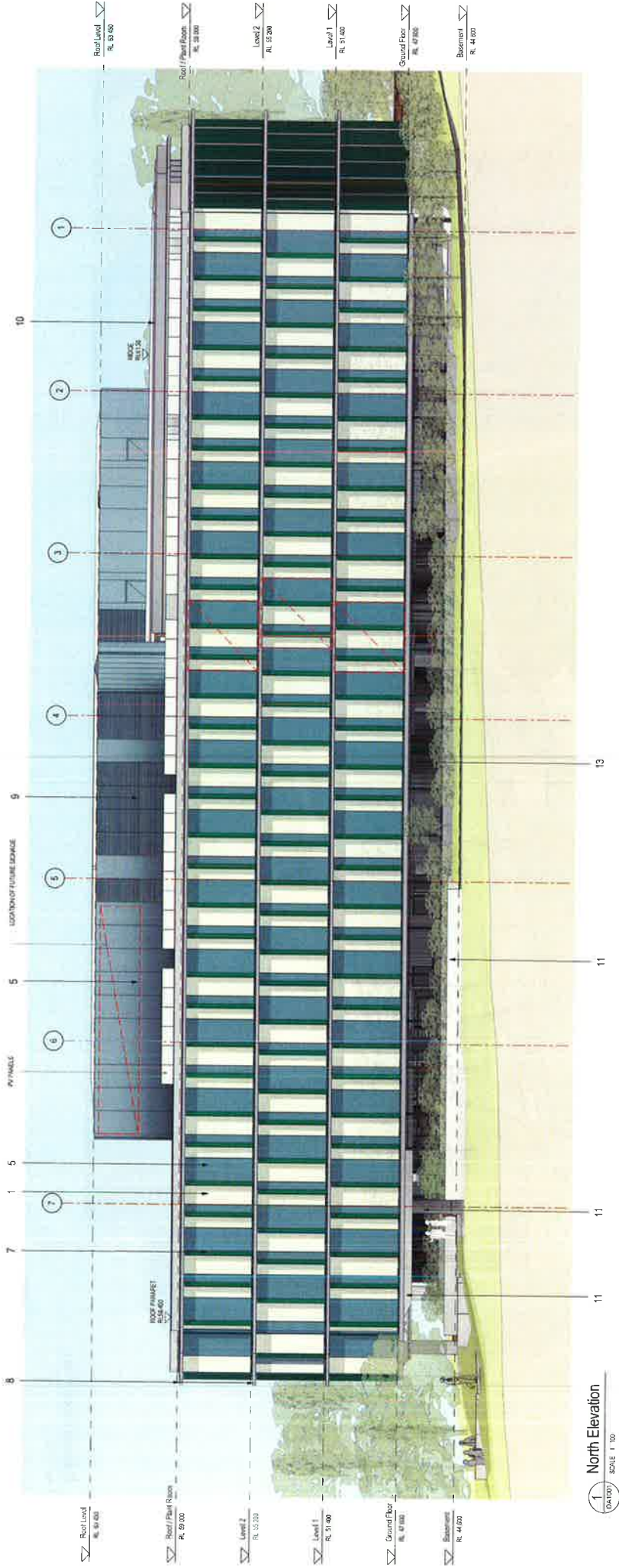


DATE	REVISION
15/11/12	1
15/11/12	2
15/11/12	3
15/11/12	4
15/11/12	5
15/11/12	6
15/11/12	7
15/11/12	8
15/11/12	9
15/11/12	10
15/11/12	11
15/11/12	12
15/11/12	13
15/11/12	14
15/11/12	15
15/11/12	16
15/11/12	17
15/11/12	18
15/11/12	19
15/11/12	20
15/11/12	21
15/11/12	22
15/11/12	23
15/11/12	24
15/11/12	25
15/11/12	26
15/11/12	27
15/11/12	28
15/11/12	29
15/11/12	30
15/11/12	31
15/11/12	32
15/11/12	33
15/11/12	34
15/11/12	35
15/11/12	36
15/11/12	37
15/11/12	38
15/11/12	39
15/11/12	40
15/11/12	41
15/11/12	42
15/11/12	43
15/11/12	44
15/11/12	45
15/11/12	46
15/11/12	47
15/11/12	48
15/11/12	49
15/11/12	50
15/11/12	51
15/11/12	52
15/11/12	53
15/11/12	54
15/11/12	55
15/11/12	56
15/11/12	57
15/11/12	58
15/11/12	59
15/11/12	60
15/11/12	61
15/11/12	62
15/11/12	63
15/11/12	64
15/11/12	65
15/11/12	66
15/11/12	67
15/11/12	68
15/11/12	69
15/11/12	70
15/11/12	71
15/11/12	72
15/11/12	73
15/11/12	74
15/11/12	75
15/11/12	76
15/11/12	77
15/11/12	78
15/11/12	79
15/11/12	80
15/11/12	81
15/11/12	82
15/11/12	83
15/11/12	84
15/11/12	85
15/11/12	86
15/11/12	87
15/11/12	88
15/11/12	89
15/11/12	90
15/11/12	91
15/11/12	92
15/11/12	93
15/11/12	94
15/11/12	95
15/11/12	96
15/11/12	97
15/11/12	98
15/11/12	99
15/11/12	100





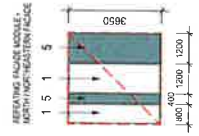




1 North Elevation  
SCALE 1:100

EXTERNAL FINISHES LEGEND

- 1 HIGH PERFORMANCE TINTED GLASS WITH GREEN TINT (FINISH OF GLASS) (VALUE IS SHOWN)
- 2 HIGH PERFORMANCE TINTED GLASS WITH GREY TINT (FINISH OF GLASS) (VALUE IS SHOWN)
- 3 HIGH PERFORMANCE TINTED GLASS WITH GREY TINT (FINISH OF GLASS) (VALUE IS SHOWN)
- 4 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 5 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 6 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 7 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 8 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 9 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 10 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 11 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 12 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC
- 13 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL COLOUR GREY METALLIC



\*architectus Sydney 2012

Architectus Sydney Pty Ltd is a registered architect in New South Wales. The company is a member of the Australian Institute of Architects (AIA) and the Australian Society of Architects (ASA). The company is also a member of the Australian Institute of Building Designers (AIBD) and the Australian Institute of Architects (AIA). The company is also a member of the Australian Institute of Architects (AIA) and the Australian Society of Architects (ASA). The company is also a member of the Australian Institute of Building Designers (AIBD) and the Australian Institute of Architects (AIA).

NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR CONSTRUCTION	11/01/2012	DAVID	DAVID
2	ISSUED FOR CONSTRUCTION	11/01/2012	DAVID	DAVID
3	ISSUED FOR CONSTRUCTION	11/01/2012	DAVID	DAVID
4	ISSUED FOR CONSTRUCTION	11/01/2012	DAVID	DAVID
5	ISSUED FOR CONSTRUCTION	11/01/2012	DAVID	DAVID

architectus™  
Architects  
Level 2, 251 George Street  
Sydney NSW 2000  
T 61 6 9250 2000  
F 61 6 9250 2001  
www.architectus.com.au

Project  
UWS WERRINGTON SOUTH  
CAMPUS, PENRITH, NSW  
BUILDING BR

Drawing No  
DA2000

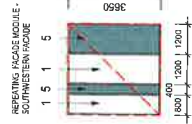
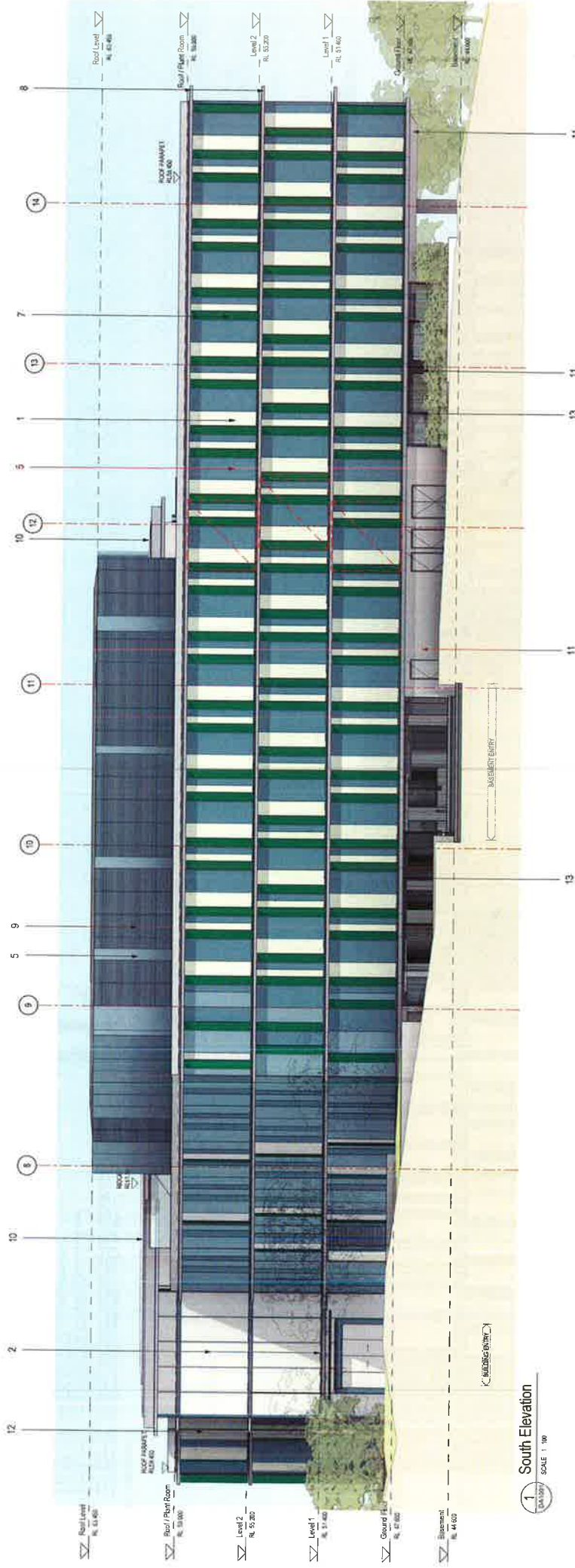
North Elevation

Scale  
E

Date  
11/01/2012 10:14 PM







1 South Elevation  
DA2002 SCALE 1:50

- EXTERNAL FINISHES LEGEND
- 1 HIGH PERFORMANCE SOLAR CONTROL GLASS WITH GREEN TINT / PRISMATIC GLAZING, U-VALUE 1.6, SHGC 0.31
  - 2 HIGH PERFORMANCE SOLAR CONTROL GLASS WITH GREY TINT AND DOT TINT PATTERN (ROOF LISTS), U-VALUE 1.6, SHGC 0.31
  - 3 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 4 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 5 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 6 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 7 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 8 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 9 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 10 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 11 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC
  - 12 ALUMINUM COMPOSITE ALUMINUM CLADDING PANEL, COLOUR GREY METALLIC

"architectus" Sydney 2012



UWS WERRINGTON SOUTH  
CAMPUS, PENRITH, NSW  
BUILDING BR

South Elevation

architectus™

Architectus Building  
Level 3, 3rd Floor, Suite 301  
100/102, 102/104, 104/106  
Sydney, NSW 1513, Australia  
sydney@architectus.com.au

Sydney  
Architectus  
Building  
Sydney

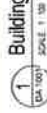
Project: UWS Werrington South Campus, Penrith, NSW Building BR  
Drawing: South Elevation  
Drawing no: DA2002  
Drawing date: 12/07/2012

11/06/2013 10:44 PM









- 1 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 2 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 3 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 4 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 5 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 6 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 7 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 8 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 9 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 10 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 11 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES
- 12 HIGH PERFORMANCE POLYURETHAN GLASS WITH GREEN TINT, PRIMARY GLAZING, UNPAVED, 15 SPECIES

checked	Character	As indicated
given <td>Author <td>120279 00</td> </td>	Author <td>120279 00</td>	120279 00

DA2005 F

© 2003 Blackwell Publishing Ltd *Journal of Internal Medicine* 253: 103–110



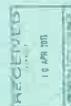












## Number: 1-2000

**Call today. Verify all dimensions on site.**

[illegible]

111

Account	JD	As indicated
120779.00		

Roofs Plant Level Plan

DA1004 F

100

DRAWING LIST

12-099\_DA\_01 site context  
12-099\_DA\_02 concept diagrams  
12-099\_DA\_03 landscape precedents  
12-099\_DA\_04 colour master plan  
12-099\_DA\_05 front entrance detail plan  
12-099\_DA\_06 basin edge detail design  
12-099\_DA\_07 landscape sections  
12-099\_DA\_08 landscape sections  
12-099\_DA\_09 indicative plant palette  
12-099\_DA\_10 indicative plant palette  
12-099\_DA\_11 indicative plant palette  
12-099\_DA\_12 indicative plant palette  
12-099\_DA\_13 landscape master plan  
12-099\_DA\_14 landscape planting plan\_sheet 01  
12-099\_DA\_15 landscape planting plan\_sheet 02  
12-099\_DA\_16 landscape planting plan\_sheet 03  
12-099\_DA\_17 landscape details + specifications

Arcadia  
LANDSCAPE ARCHITECTURE

architectus™



University of  
Western Sydney

werrington park  
CORPORATE CENTRE

UWS WERRINGTON  
development application

february 2013





REGIONAL CONTEXT



LOCAL CONTEXT



EXISTING CONDITION

#### SITE CONTEXT

The site of UWS Werrington South campus is located on the Great Western Highway approximately 45km west of the Sydney CBD and 5km east of Penrith. The development site occupies the north-east corner at the main entry to the UWS Werrington South campus and is located within a designated Precinct Area which establishes the extent of the masterplan scope for the development site.



The precinct is a large undulating piece of open grassland with a north eastern slope and advantageous views from higher up the slope. The Precinct site generally falls from the South West corner of the site to the north east at a typical gradient of approximately 1 in 20. Levels are generally flatter towards the north east of the site adjacent to the existing University access road and junction.

The development site is proposed for the most easterly plot within the precinct and is bounded to the east by an existing University access road and junction with the Great Western Highway, to the south by existing car parking and to the west are greenfield areas. The corner site overlooks the main entry and a cluster of established trees beyond.



## KEY PRINCIPLES

### Integrated Hydrology

A network of rain gardens, swales and dry creek beds capture stormwater from hard surfaces and roofs, treat it and transport it across the site to the bio-retention basin, ready for re-use.

### Views and Vistas

Careful placement of trees ensures key view corridors are retained. Plant groupings, ripple walls, circulation tracks and dry creek beds provide focal interest that leads the eye to the landscape.

### Functional Spaces & Circulation

Spaces are positioned for microclimatic benefit. Opportunities for loop access around the site assists in creating a healthy environment for corporate centre users.

### Generous Geometry

Garden bed shapes are derived from architectural angles, accentuating building cantilevers and providing defined zones for the built form to 'land'. Low walls in the pasture grass 'ripple' from the buildings extending the relationship into the landscape while retaining the existing open qualities of the site.

## KEY THINKING

### Planting

Water sensitive / drought tolerant species.  
Low maintenance garden beds with defined edges.  
Reduction of campus style planting scheme to create a character that complements the university landscape while offering improved outlook for the corporate centre.

### Tree groupings offer framed views

Variation of tree sizes to create strong avenues and backdrops but also intimate spaces

### Maintenance

Robust edging to turf areas.  
Reduction of overall turf area.  
Areas of zero maintenance indigenous understorey regeneration that contribute to local character.

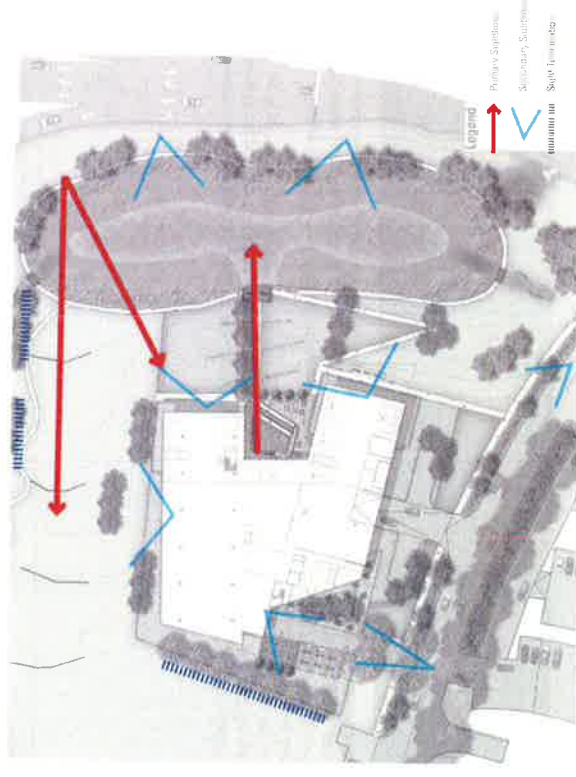
### Wildlife Management

Introduction of solar powered snake deterrents to garden bed areas close to buildings and paths.

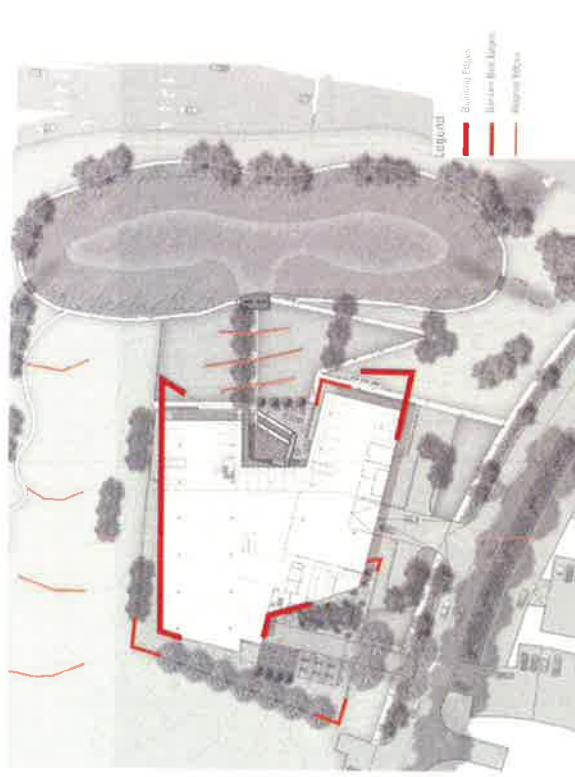
### Materials

Low embodied energy selections that can be locally sourced.  
Raw materials that reflect the local area and history.  
Long lasting, robust finishes that are of high quality and complementary to the furniture palette.

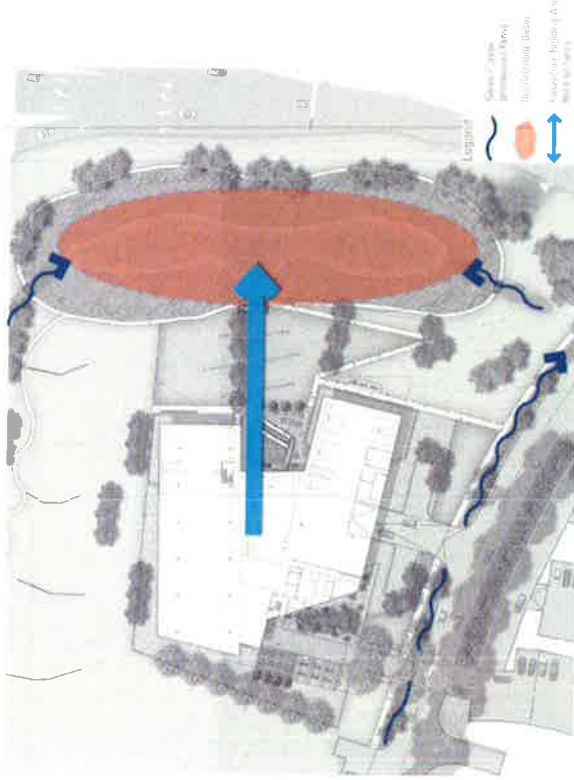
## VIEWS AND VISTAS



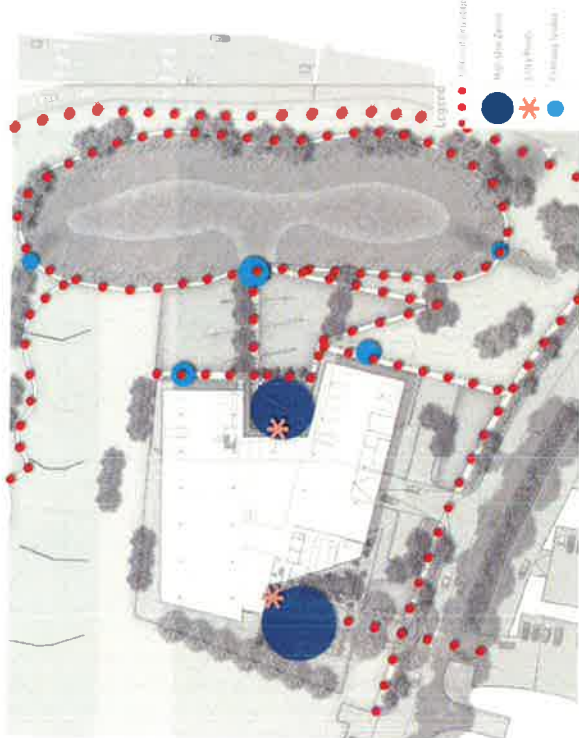
## GENEROUS GEOMETRY



## INTEGRATED HYDROLOGY



## FUNCTIONAL SPACES AND CIRCULATION





# CHARACTER



# HARDSCAPE



# WSUD



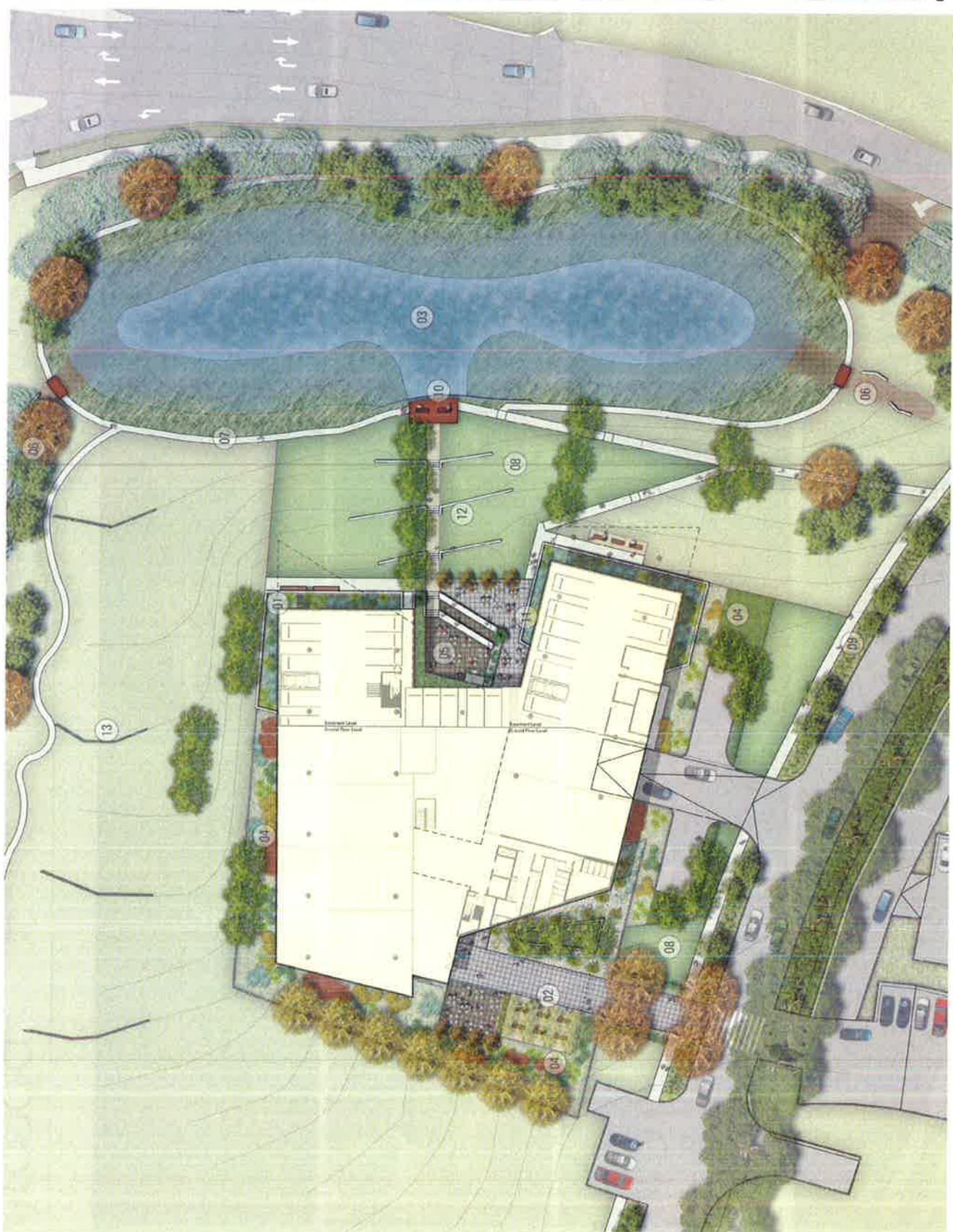
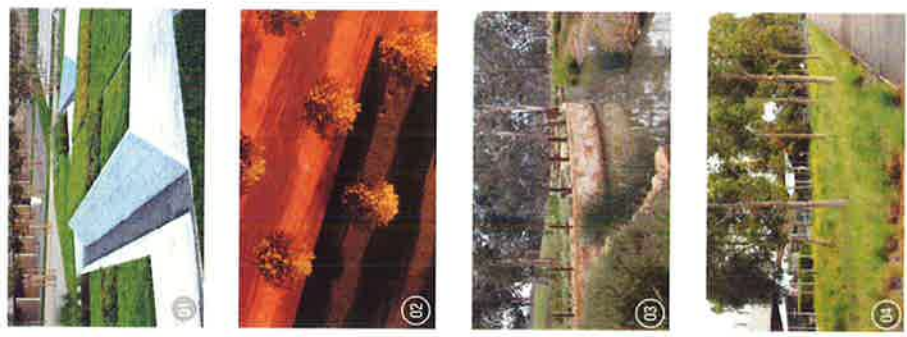
# SOFTWARES



## WERRINGTON PARK CORPORATE CENTRE LANDSCAPE PRECEDENTS



- LEGEND**
- /01 Raised garden bed 'carpet' under building
  - /02 Building entry with feature tree bosque
  - /03 Bio-retention pond
  - /04 Accent planting
  - /05 Raised courtyard with seating
  - /06 Ephemeral creek bed with feature walls
  - /07 Circulation track with bridge crossings
  - /08 Maintained turf zone
  - /09 WSUD swale treating road runoff
  - /10 Viewing deck with retaining wall
  - /11 Terrace above
  - /12 Turf terraces with retaining walls
  - /13 Low edge reflecting rising contours







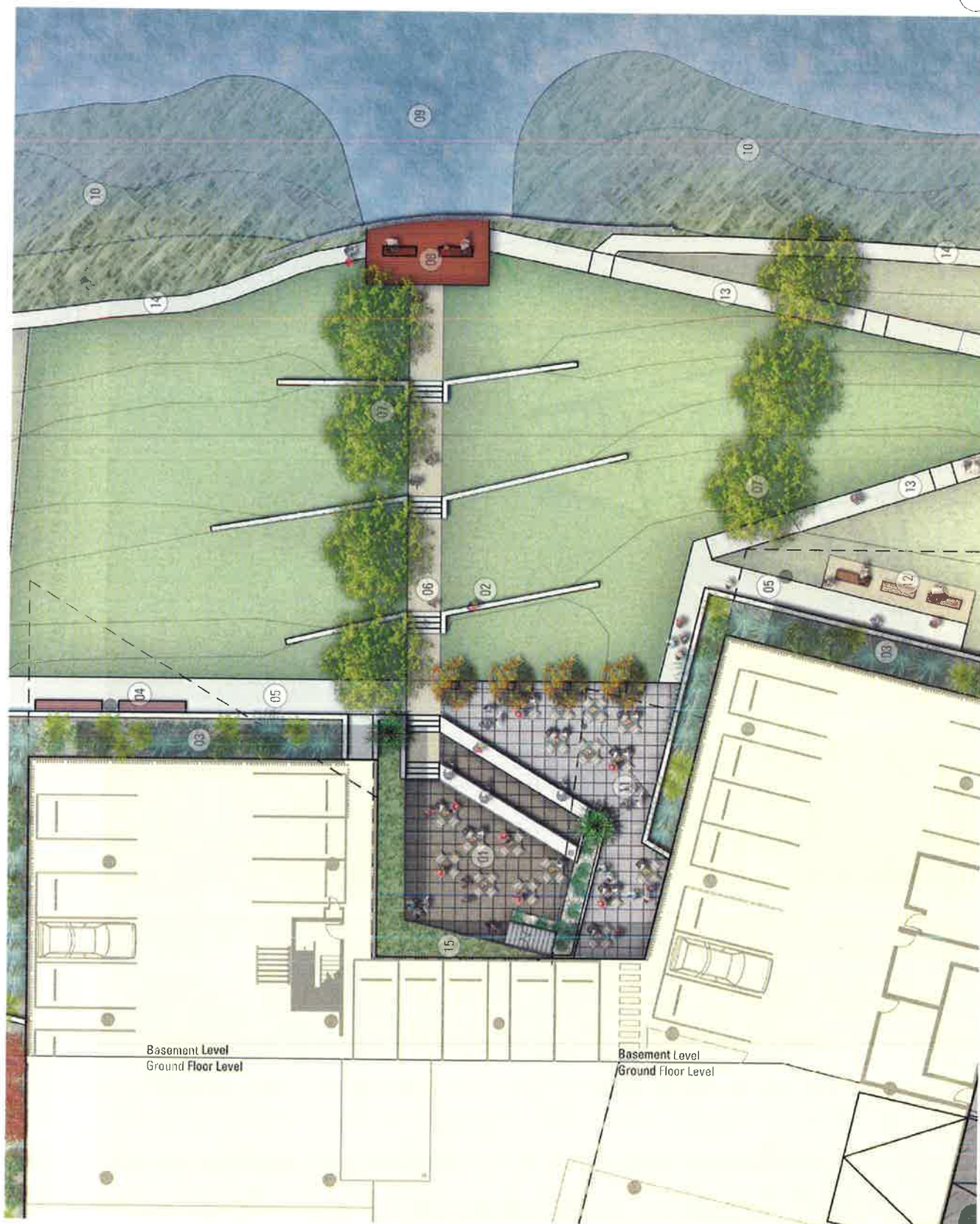
# LEGEND

- 01/ Adaptable outdoor dining / passive space with movable furniture
- 02/ Xeriscape style garden bed with stone mulch and scattered native accent plants
- 03/ Main entry feature pavement
- 04/ Ornamental Pear bosque with stabilised gravel surface and bench seats
- 05/ Layered native low water use garden bed planting
- 06/ Native screen trees enclose the space and offer shelter
- 07/ Formal native tree placement to frame entry and enhance pedestrian experience
- 08/ Loading zone and temporary visitor parking
- 09/ Vegetated swale receiving stormwater from access road
- 10/ Native buffer planting to building edge
- 11/ Pedestrian crossing access to proposed car park
- 12/ Basement car park entry and service area
- 13/ Manicured turf zone
- 14/ Clusters of native trees provide screening

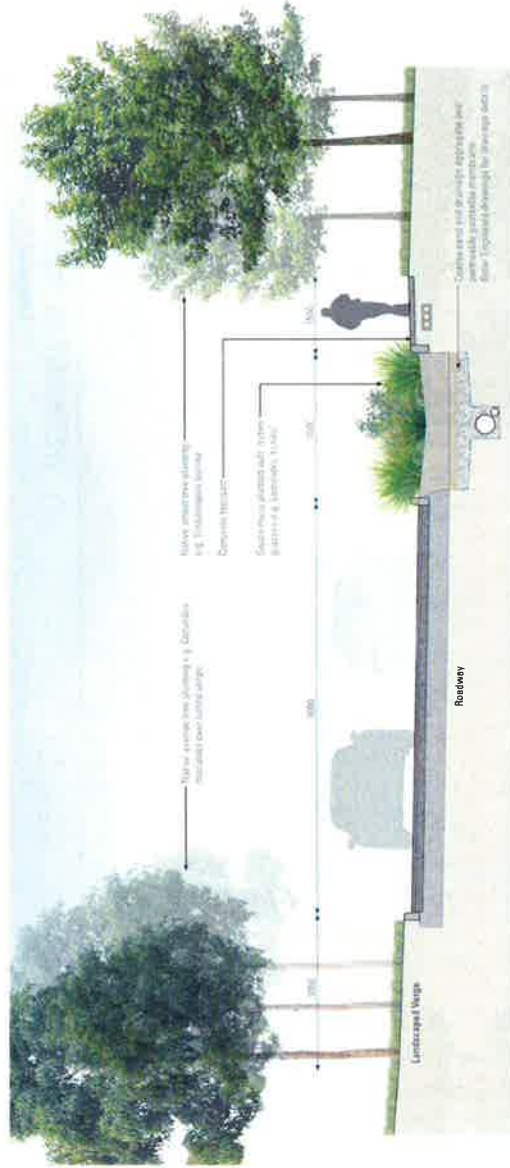




- 01/ Paved terrace with movable furniture
- 02/ Retaining walls / turf terraces provide seating with views over basin
- 03/ Raised garden bed with layered shade loving plants
- 04/ Timber bench seating below building overhang
- 05/ Concrete circulation path
- 06/ Basin access path with steps
- 07/ Feature shade tree plantings
- 08/ Timber lookout deck with water access and seating
- 09/ Bio-retention basin
- 10/ Riparian planting matrix to the banks of the bio-retention basin
- 11/ Lower terrace with movable furniture and shade from overhanging terrace
- 12/ Shaded bench seating under building overhang
- 13/ Accessible pathway providing access to timber lookout deck / basin circulation path
- 14/ Informal basin circulation path
- 15/ Screening structure to edge of terrace space with climbing plants







SECTION A-A

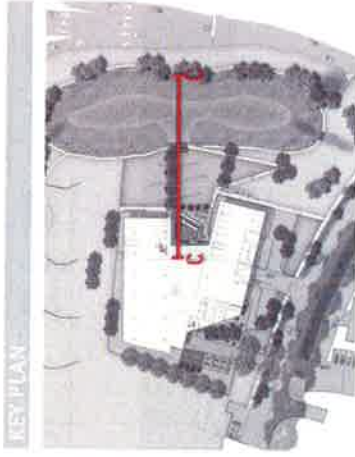


KEY PLAN

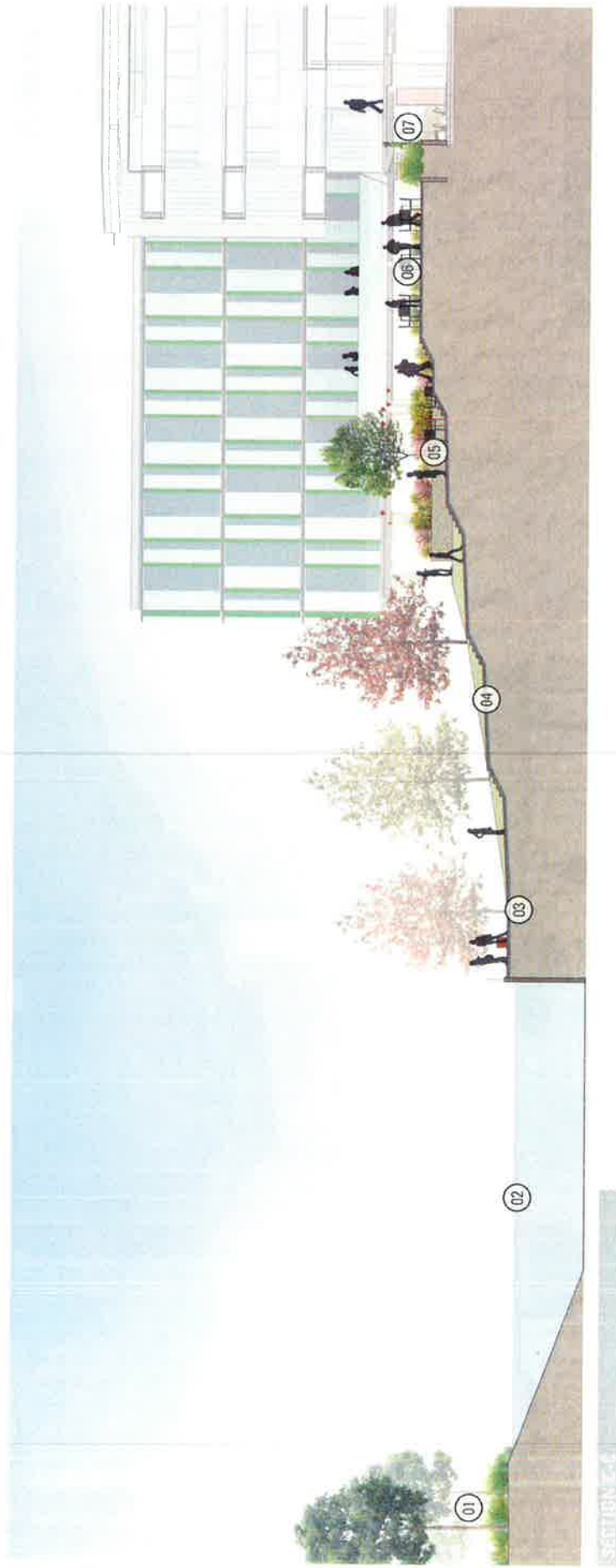
- LEGEND
- /01 Paved alfresco dining area
  - /02 Feature tree bosque with bench seating
  - /03 Mixed native shrubs and accents
  - /04 Maintained turf area
  - /05 Large native specimen trees to mark entry



SECTION B-B



- LEGEND**
- /01 Riparian planting
  - /02 Detention pond
  - /03 Viewing deck
  - /04 Stepped access through turf terraces to basin edge
  - /05 Seating terrace with feature tree plantings
  - /06 Elevated courtyards with seating
  - /07 Screening planting



SECTION C-C



# INDICATIVE PLANTING PALETTE

## Trees



*Corymbia maculata* - Spotted Gum



*Tristaniopsis laurina* - Water Gum



*Fraxinus excelsior* - Aurea - Golden Sallow



*Pinus ussuriensis* - Machuanus Poplar

## Shrubs, Ferns and Accents



*Cordyline stricta* - Palm Lily



*Asplenium australasicum* - Great Nest Fern



*Cyathea edulis* - Rough Tree Fern



*Dicksonia antarctica* - Soft Tree Fern



*Dianella caerulea* - Native Dienes



*Doryanthes excelsa* - Gymea Lily



*Melaleuca myrtifolia* - Thyme Honey Myrtle



*Phytolacca koraiensis* - Koraiensis



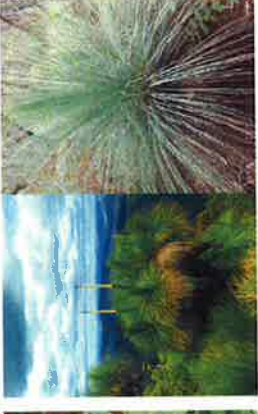
*Phormium tenax purpureum* - Pompilius



*Phormium tenax* - Jack Sparat



*Westringia flaccida* - Casual Rosemary



*Xanthorrhoea australis* - Gross Tree

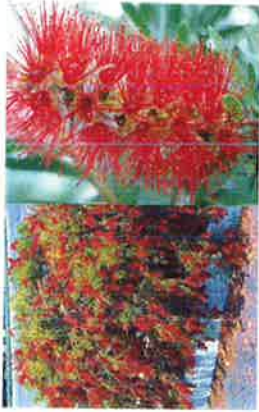


# INDICATIVE PLANTING PALETTE

## Shrubs, Ferns and Accents



*Banksia speciosa* - Giant Banksia



*Callistemon 'Captain Cook'* - Captain Cook



*Eucalyptus 'Wattle'* - Wattle



*Hebe 'Turkish Delight'* - Turkish Delight



*Cordyline 'Dark Knight'* - Dark Knight



*Mahoea 'Claret Tops'* - Claret Tops



*Liriodendron 'Ulysses'* - Ulysses



*Styphnum 'Lilac King'* - Lilac King



*Alseodaphne 'Kingship Pav'* - Kingship Pav



*Phoradendron 'Golf Ball PBR'* - Golf Ball



*Leptospermum scoparium* - Tea Tree



# INDICATIVE PLANTING PALETTE

## Grasses and Groundcovers



Lolandra Tanak's - Mei Rush



Penstemon strictum - Rabwort - Purple Fountain Grass



Scaevola Mauve Clusters - Full Flower



Trachypogon usminkii - Tricolour Star Jasmine



Greville - Spurred Royal Manne - Royal Manne



Dianella - Dianella



Lomandra - Spiny Headed Mai Rush



Dianella - Dianella

## 12-089 WERRINGTON PARK CORPORATE CENTRE PLANT SCHEDULE

CODE	BOTANIC NAME	COMMON NAME	MATURE SIZE (H x W x D)	PROPOSED POT SIZE	QUANTITY
<b>TREES &amp; PALMS</b>					
Ac	Angophora costata	Smooth Barked Apple	20 x 10	200L	4
Al	Angophora floribunda	Rough Barked Apple	20 x 10	75L	22
Co	Corymbia maculata	Spotted Gum	20 x 10	75L	22
Er	Eucalyptus reticulata	Blueberry Ash	15 x 10	75L	22
Es	Eucalyptus species	Verous	Varies	200L	10
Fr	Fraxinus Raywood	Claret Ash	15 x 10	200L	10
Mg	Magnolia grandiflora Little Gem	Dwarf Magnolia	15 x 10	75L	14
Mt	Melaleuca quinquenervia	Broad Leaved Paperbark	15 x 10	75L	14
Pu	Pyrus ussuriensis	Manchu Pear	10 x 8	100L	8
Ti	Tristania laurifolia	Water Gum	10 x 5	100L	7
<b>SHRUBS &amp; ACCEDES</b>					
Ba	Banksia integrifolia Giant Candle	Great Candle	15 x 1	300mm	14
Cc	Callistemon 'Captain Cook'	Captain Cook	2 x 15	300mm	6
Co	Callistemon 'Great Balls of Fire'	Great Balls of Fire	175 x 175	300mm	15
Da	Dianella arbuscula	Synedra Lily	3 x 15	300mm	35
En	Eriogonum myrsinoides	Waxflower	1 x 1	200mm	20
Ht	Hebe Turkish Delight PBR	Turkish Delight	0.5 x 0.5	200mm	30
Li	Leptospermum nanum 'Ratsum'	Dwarf Red Tea Tree	1 x 1	200mm	6
Ls	Liriodendron 'Isabelle'	Isabelle	0.4 x 0.4	200mm	358
Lj	Leptospermum juniperinum	Prickly Tea Tree	3 x 2	200mm	90
Ln	Liriodendron macleayi	Tea Tree	0.6 x 0.6	200mm	88
Mc	Leptospermum scoparium	Claret Top	15 x 15	300mm	29
Mt	Melaleuca 'Claret Toes'	Thyme Honey Myrtle	1 x 2	300mm	4
Pa	Phormium 'Kawau'	Kawau	1 x 1	200mm	29
Pd	Phormium 'Dark Delight'	Dark Delight	15 x 15	200mm	29
Pp	Phormium 'Pink Ribbon'	Pink Ribbon	1 x 1	200mm	29
Fj	Phormium 'Jack Spratt'	Jack Spratt	0.5 x 0.5	200mm	28
Pg	Phormium 'Amidulum Golf Ball PBR'	Golf Ball	12 x 12	300mm	15
Wt	Westringia fruticosa	Waxflower	15 x 15	200mm	26
Xa	Xanthorrhoea australis	Wattle	15 x 15	200mm	50
Xg	Xanthorrhoea gracilis	Grass Tree	2 x 1	300mm	5
<b>SHRUBS &amp; BUSHES</b>					
Li	Lomandra 'Tinkit'	Mai Rush	1 x 1	150mm	175
Pa	Penstemon alpinus 'Purple Lee'	Fountain Grass	12 x 12	150mm	750
<b>FERNS &amp; CYCADS</b>					
As	Asplenium australasicum	Birds Nest Fern	15 x 15	300mm	18
Ca	Cyathea australis	Scoley Tree Fern	5 x 3	300mm	8
Da	Dichaea ericetorum	Sch. Tree Fern	7 x 3	300mm	3
<b>GROUNDCOVERS &amp; CLIMBERS</b>					
Aq	Anagallis 'Bush Gem'	Kangaroo Paw Bush Gem	1 x 1	200mm	7
Ab	Anagallis 'Big Red'	Kangaroo Paw Big Red	13 x 13	200mm	7
Am	Anagallis 'mangrove'	Kangaroo Paw - Green	13 x 13	200mm	289
Di	Dianella revoluta	Maui Flax Lily	0.4 x 0.4	150mm	180
Di	Dianella bicolor	Dianella	0.3 x 0.3	150mm	75
Fg	Festuca glauca	Blue Fescue	0.3 x 0.3	150mm	355
Gr	Grevillea 'Royal Manne'	Royal Manne	0.3 x 0.3	150mm	355
Tj	Trachypogon usminkii	Tricolour Star Jasmine	0.25 x 1	150mm	250



Basin and Swale Matrix Planting



*Comandra trinica* - Mat Rush



*Poa labillardieri* - Eskdale



*Carex appressa* - Swamp Sedge



*Juncus sphaerolobus* - Grease - Flax Lily



*Baumea articulata* - Jointed Twig Rush



*Juncus sphaerolobus* - Grease - Flax Lily



*Melaleuca nodosa* - Knobby Cumin Rush



*Schoenoplectus mucronatus* - Tall Rush

12-099 WERRINGTON PARK CORPORATE CENTRE PLANT SCHEDULE

WETLAND MATRIX (Includes Swales)				
Cup	<i>Carex appressa</i>	Swamp Sedge	1 x 1	150mm
Dca	<i>Diuris caerulea</i> - Blueie	Flax Lily	0.6 x 0.6	250mm
Lu	<i>Comandra longifolia</i>	Spiny Headed Mat Rush	1 x 1	1810
Lu	<i>Comandra trinica</i>	Mat Rush	1 x 1	1810
Pla	<i>Poa labillardieri</i> - Eskdale	Eskdale	1 x 1	1810

BASIN MATRIX				
Bar	<i>Baumea articulata</i>	Jointed Twig Rush	1 x 1	150mm
Cia	<i>Carex tenax</i>	Tall Sedge	1 x 1	150mm
Lu	<i>Lythrum salicaria</i> - Red Lythrum	Red Lythrum	1 x 1	150mm
Jus	<i>Juncus sphaerolobus</i>	Grease - Flax Lily	1 x 1	150mm
Smu	<i>Schoenoplectus mucronatus</i>	Tall Rush	1 x 1	150mm

Desired Swale / Basin Planting Character











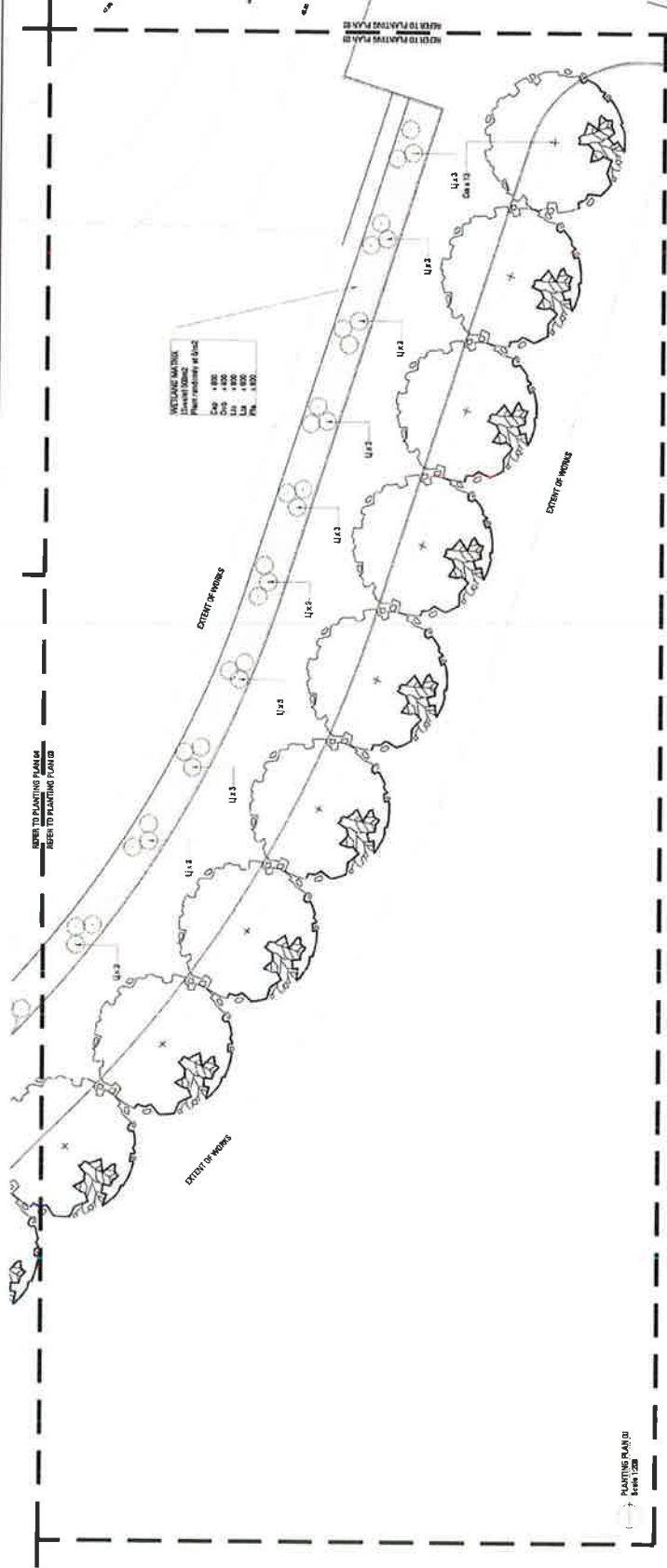


Item	Code	Plant Name	Quantity	Notes
1	Q1.1	Platanus	10	Platanus
2	Q1.2	Platanus	10	Platanus
3	Q1.3	Platanus	10	Platanus
4	Q1.4	Platanus	10	Platanus
5	Q1.5	Platanus	10	Platanus
6	Q1.6	Platanus	10	Platanus
7	Q1.7	Platanus	10	Platanus
8	Q1.8	Platanus	10	Platanus
9	Q1.9	Platanus	10	Platanus
10	Q1.10	Platanus	10	Platanus
11	Q1.11	Platanus	10	Platanus
12	Q1.12	Platanus	10	Platanus
13	Q1.13	Platanus	10	Platanus
14	Q1.14	Platanus	10	Platanus
15	Q1.15	Platanus	10	Platanus
16	Q1.16	Platanus	10	Platanus
17	Q1.17	Platanus	10	Platanus
18	Q1.18	Platanus	10	Platanus
19	Q1.19	Platanus	10	Platanus
20	Q1.20	Platanus	10	Platanus

# LEGEND

- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE RETAINED
- PROPOSED PLANTING TREE PLANTING
- PROPOSED SHRUB AND ACCENT PLANTING
- PROPOSED MULCH/COVER PLANTING
- PROPOSED ARTLAND MATING PLANTING
- PROPOSED BACK MATING PLANTING
- PROPOSED DECOMPOSED GRANITE PAVING
- PROPOSED MULCH
- PROPOSED STONE MULCH
- PROPOSED RETAINING WALL
- PROPOSED THICKER EDGING

Item	Code	Plant Name	Quantity	Notes
1	Q1.1	Platanus	10	Platanus
2	Q1.2	Platanus	10	Platanus
3	Q1.3	Platanus	10	Platanus
4	Q1.4	Platanus	10	Platanus
5	Q1.5	Platanus	10	Platanus
6	Q1.6	Platanus	10	Platanus
7	Q1.7	Platanus	10	Platanus
8	Q1.8	Platanus	10	Platanus
9	Q1.9	Platanus	10	Platanus
10	Q1.10	Platanus	10	Platanus
11	Q1.11	Platanus	10	Platanus
12	Q1.12	Platanus	10	Platanus
13	Q1.13	Platanus	10	Platanus
14	Q1.14	Platanus	10	Platanus
15	Q1.15	Platanus	10	Platanus
16	Q1.16	Platanus	10	Platanus
17	Q1.17	Platanus	10	Platanus
18	Q1.18	Platanus	10	Platanus
19	Q1.19	Platanus	10	Platanus
20	Q1.20	Platanus	10	Platanus



PLANTING PLAN A1  
Scale 1:200

Name: [Redacted]  
Address: [Redacted]  
City: [Redacted]  
State: [Redacted]  
Postcode: [Redacted]  
Phone: [Redacted]  
Email: [Redacted]



ARCHITECTUS

**Arcadia**  
ARCHITECTURE  
1200 G ST  
PO BOX 1200 G ST  
SYDNEY NSW 1585 161 2 877 7530

WERRINGTON PARK CORPORATE CENTRE

DEVELOPMENT APPLICATION

LANDSCAPE PLANTING PLANS

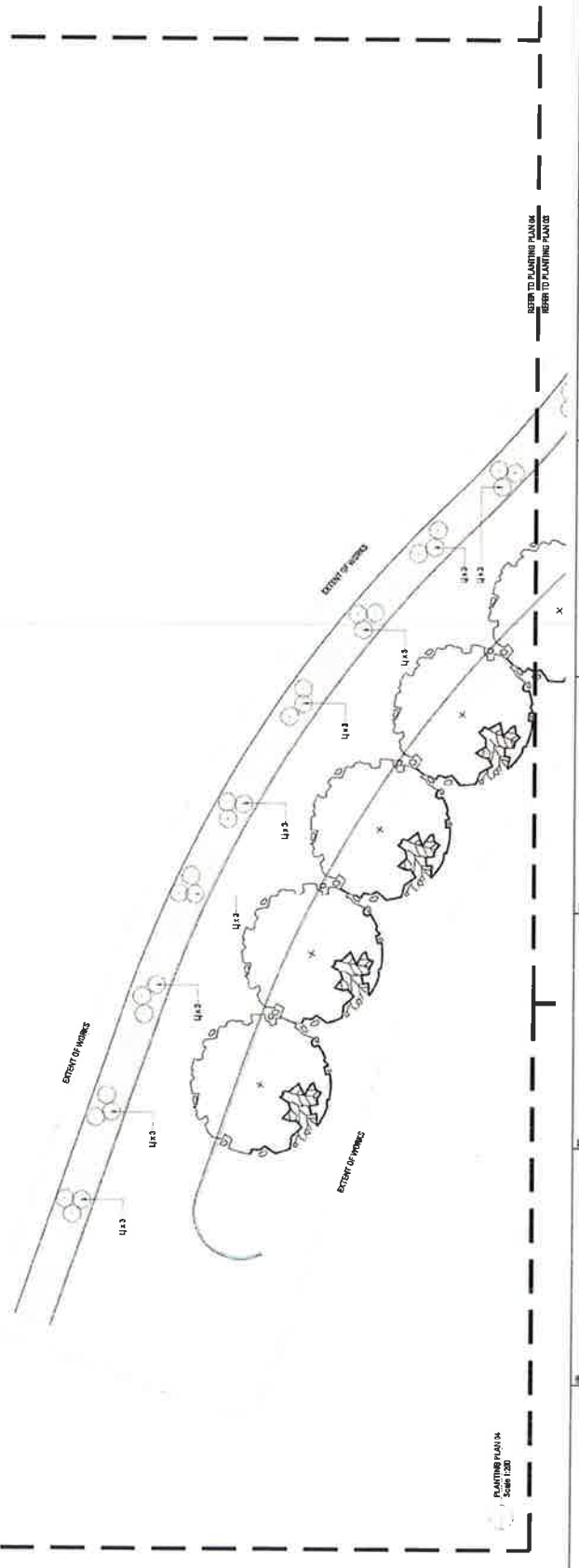
03 & 04

Scale 1:200 G ST

DA 16

12-088

B



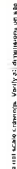
PLANTING PLAN A1  
Scale 1:200







For example, with a first log period, there are two log periods in the second, resulting in 12 observations, as against three log periods in the third, resulting in 27 observations. The log period is 12 months.



Time	Latitude	Altitude	Wind	Temp	Humidity	Pressure	Clouds	Visibility	Remarks
0000	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0100	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0200	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0300	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0400	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0500	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0600	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0700	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0800	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
0900	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1000	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1100	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1200	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1300	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1400	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1500	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1600	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1700	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1800	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
1900	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
2000	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
2100	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
2200	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
2300	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear
2400	10° 00' N	1000	010	28.0	85	1013.0	0	10	Clear

**Architectus Sydney**  
240 Pitt St, George Street  
Sydney, NSW 1000  
T (61 2) 8252 8400  
F (61 2) 8252 8400  
www.architectus.com.au

There is also a large

Account	Check	to the	
Pay	Amount	permitted by	12/20/75-00

### Aerial Perspective from Basin

[illegible]



2 May 2013

Your Reference: DA13/0161  
Our Reference: SYD13/00452/02 (A4006526)

The General Manager  
Penrith City Council  
PO Box 60  
PENRITH NSW 2751

Attention: Belinda Borg

**CONSTRUCTION OF A THREE STOREY RESEARCH AND COMMERCIAL BUILDING  
AT 14 GREAT WESTERN HIGHWAY, KINGSWOOD**

Dear Sir/Madam

I refer to your email of 10 April 2013 (Council Ref: DA13/0161) concerning the abovementioned development application which was referred to Roads and Maritime Services (RMS) for comment in accordance with Clause 104 of *State Environmental Planning Policy (Infrastructure) 2007*.

RMS has reviewed the development application and provides the following requirements to Council for inclusion in the determination of the development:

1. The subject property is affected by a road proposal as shown by pink colour on the attached diagram and copy of Deposited Plan No. 226148. New buildings or substantial structures are not to be erected on the land required for future road widening (unlimited in height or depth).

Reason: To allow any future widening of the road to be carried out in a timely and cost effective method.

2. All works/regulatory signposting associated with the proposed development are to be at no cost to RMS.

Reason: To comply with RMS requirements.

3. A Construction Traffic Management Plan detailing construction vehicle routes, number of trucks, hours of operation, access arrangements and traffic control should be submitted to Council prior to the issue of the Construction Certificate.

Reason: To comply with RMS's requirements.

**Roads & Maritime Services**

4. Detailed design plans and hydraulic calculations of any changes to the stormwater drainage system are to be submitted to RMS for approval, prior to the commencement of any works.

Details should be forwarded to:  
The Sydney Asset Management  
Roads and Maritime Services  
PO Box 973 Parramatta CBD 2124.

A plan checking fee will be payable and a performance bond may be required before RMS's approval is issued. With regard to the Civil Works requirement please contact the RMS's Project Engineer, External Works Ph: 8849 2114 or Fax: 8849 2766.

Reason: To ensure RMS's assets function effectively.

5. The developer shall be responsible for all public utility adjustment/relocation works, necessitated by the above work and as required by the various public utility authorities and/or their agents.

Reason: To comply with RMS's requirements.

6. All vehicles are to enter and leave the site in a forward direction.

Reason: To allow safe vehicular entry and exit.

7. All construction vehicles are to be contained wholly within the site and vehicles must enter the site before stopping. A construction zone will not be permitted on the Great Western Highway.

Reason: To allow safe vehicular entry and exit.

RMS provides the following advisory comments to Council for consideration in its determination of the development:

1. The car parking provision is to be to Council's satisfaction.
2. The layout of the proposed car parking areas associated with the subject development (including, driveways, grades, turn paths, sight distance requirements, aisle widths, aisle lengths, and parking bay dimensions) should be in accordance with AS 2890.1- 2004 and AS 2890.2 – 2002 for heavy vehicle usage.
3. 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. In this regard, a plan shall be submitted to Council for approval, which shows that the proposed development complies with this requirement.

Any inquiries can be directed to Dianne Rees by telephone on 8849 2237.

Yours sincerely



Owen Hodgson

Senior Land Use Planner  
Transport Planning, Sydney Region