



**Planning &
Environment**

***STATE SIGNIFICANT DEVELOPMENT
ASSESSMENT REPORT:***

***University of Wollongong
Western Building***

SSD 8596



Environmental Assessment Report
Section 4.40 of the *Environmental Planning and
Assessment Act 1979*

August 2018

ABBREVIATIONS

Applicant	University of Wollongong, or anyone else entitles to act on this consent
AS	Australian Standard
CIV	Capital Investment Value
Consent	Development Consent
Council	Wollongong City Council
DA	Development Application
DCP	Development Control Plan
Department	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
Amending Act	<i>Environmental Planning and Assessment Amendment Act 2017</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPA	Environment Protection Authority
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
FSR	Floor space ratio
GFA	Gross floor area
GSC	Greater Sydney Commission
ICNP	Interim Construction Noise Policy
INP	Industrial Noise Policy
LEP	Local Environmental Plan
LGA	Local Government Area
Minister	Minister for Planning
NCC	National Construction Code
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
RtS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	State Environmental Planning Policy (State and Regional Development) 2011
SSD	State Significant Development
TfNSW	Transport for New South Wales
UOW	University of Wollongong
WLEP	Wollongong Local Environmental Plan 2009

Cover Photograph: Northern and Eastern elevation of the proposed Western Building from the north-east corner of the site (*source: EIS*)

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Published August 2018
NSW Department of Planning and Environment
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EXECUTIVE SUMMARY

This report is an assessment of a State significant development (SSD) application lodged by the University of Wollongong (UOW – the Applicant) for the construction of a new academic building to accommodate the Arts and Social Sciences, to be known as the Western Building (SSD 8596). The site is known as Northfields Avenue, Keiraville (Lot 1 DP 1188267) located within the Wollongong local government area.

The proposal seeks detailed approval for: demolition of two existing demountable buildings; removal of trees; construction of a new four storey education building (plus rooftop plant), comprising of learning, research, rehearsal, theatres, studios, staff, labs and workshops spaces, end-of-trip facilities and outdoor learning spaces; and ancillary landscaping and public domain works. The proposal has a capital investment value (CIV) of approximately \$54 million and would potentially generate 140 construction and accommodate 54 new staff.

The development is SSD under clause 15 of Schedule 1 to the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP), as it is development of education facilities and has a CIV of more than \$30 million. Therefore, the Minister for Planning is the consent authority. In accordance with the Minister's delegation dated 11 October 2017, the Executive Director, Priority Projects Assessments can determine the subject application as Council has not objected to the proposal, no political disclosure statement has been made and less than 25 public submissions have been received objecting to the proposal.

The site is zoned SP2 Infrastructure under Wollongong Local Environmental Plan 2009 and the development of an education establishment is permissible with consent.

The proposal was publicly exhibited between 16 November 2017 until 15 December 2017. The Department of Planning and Environment received a total of seven submissions from public authorities, including Wollongong City Council, and two public submissions, including one objection and a letter of support from a neighbourhood forum, during the exhibition of the application.

The key issues raised in the submissions include car parking and traffic impacts, tree removal, landscaping and management of potential cumulative construction impacts, which the Department considers to be the key issues associated with the project.

The Department has considered the above issues in its assessment, along with built form and urban design and noise and vibration impacts.

The Department has considered the merits of the proposal in accordance with the relevant matters under section 4.15(1), the objects of the *Environment Planning and Assessment Act 1979*, the principles of Ecologically Sustainable Development, State priorities, *Illawarra Shoalhaven Regional Plan*, UOW Master Plan, and issues raised in all submissions as well as the Applicant's response to these.

The proposal would provide improved teaching and learning outcomes by combining existing facilities into a new building ensuring that they are able to meet current standards and provide more flexible research and educational spaces. The impacts of the proposal have been addressed in the Environmental Impact Statement and can be adequately managed through the recommended conditions of consent.

The Department is satisfied the site is suitable for the proposed Western Building development as it would maintain the site's ongoing educational use and improve the accessibility and quality of public educational resources as well as being in the public interest.

The Department concludes the proposal is in the public interest and recommends that the application be approved subject to conditions.

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1. BACKGROUND

1.1 Introduction

This report provides an assessment of a State significant development (SSD) application for a new Arts and Social Sciences building within the University of Wollongong (UOW) Campus. The proposal, to be known as the Western Building, is to be located on land currently occupied by demountable buildings and an existing at grade carpark within the UOW Wollongong Campus West, Northfields Avenue, Wollongong (SSD 8596), pursuant to Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act).

The proposal seeks approval for:

- demolition of two existing demountable buildings and tree removal
- construction of a new four storey education building (plus rooftop plant), comprising of learning, research, rehearsal, theatres, studios, staff, labs and workshops spaces, end-of-trip facilities and outdoor learning spaces
- ancillary landscaping and public domain works.

The application has been lodged by Ethos Urban on behalf of the University of Wollongong (the Applicant). The site is located within the Wollongong local government area (LGA).

1.2 University of Wollongong Campus Master Plan 2016-2036

The UOW Wollongong Campus Master Plan 2016-2036 (the Master Plan) creates a vision and framework to guide the physical development of the Wollongong Campus over the next 20 years (see **Figures 1** and **2**).

The vision for the Campus is to evolve into a dynamic knowledge and innovation hub, becoming a leader in research and student-centred education, enriching the campus experience for staff and students. The Master Plan proposes to achieve the vision through excellence in urban design, high-quality built form, public realm and landscaping.

Wollongong Campus vision:

“The Wollongong campus will evolve as a dynamic and memorable 24-hour knowledge and innovation focus of the region. It will be a leader in research and student-centred education and will be renowned for its distinctive native landscape setting at the gateway to the Illawarra, sitting between the foothills of Mount Keira and the Illawarra escarpment, and the Pacific Ocean.

The success of the campus will be distinguished by excellence in learning and teaching places, and campus infrastructure that supports a high-quality knowledge neighbourhood experience. These facilities and spaces will be underpinned by a commitment to urban design excellence and sustainable development principles and will be supported by outstanding landscaped public streets, spaces and venues, and noted for their welcoming configuration.

The campus will become the hub of student life. It will form part of an important network of well-connected economies and partnerships across the city, together with the Education Precinct, Wollongong City Centre, Health Precinct and connecting neighbourhoods.

The campus will play an important role in the economic, social, cultural and creative success of the city and provide a major hub for employment in the region.”

The Master Plan recognises the proposed Western Building as being where contemporary and interpretive art, signage, and creative spaces such as green rooms and performance spaces, will be showcased. The Western Building will bring the quality of the core campus to the west, and

turn the campus into a learning environment with state-of-the-art spaces hosting geography, health and society, social work, theatre, performance, communications, film and journalism. There will be opportunities for community outreach with this building, with social work services, student performances, seminars and exhibitions throughout the year.

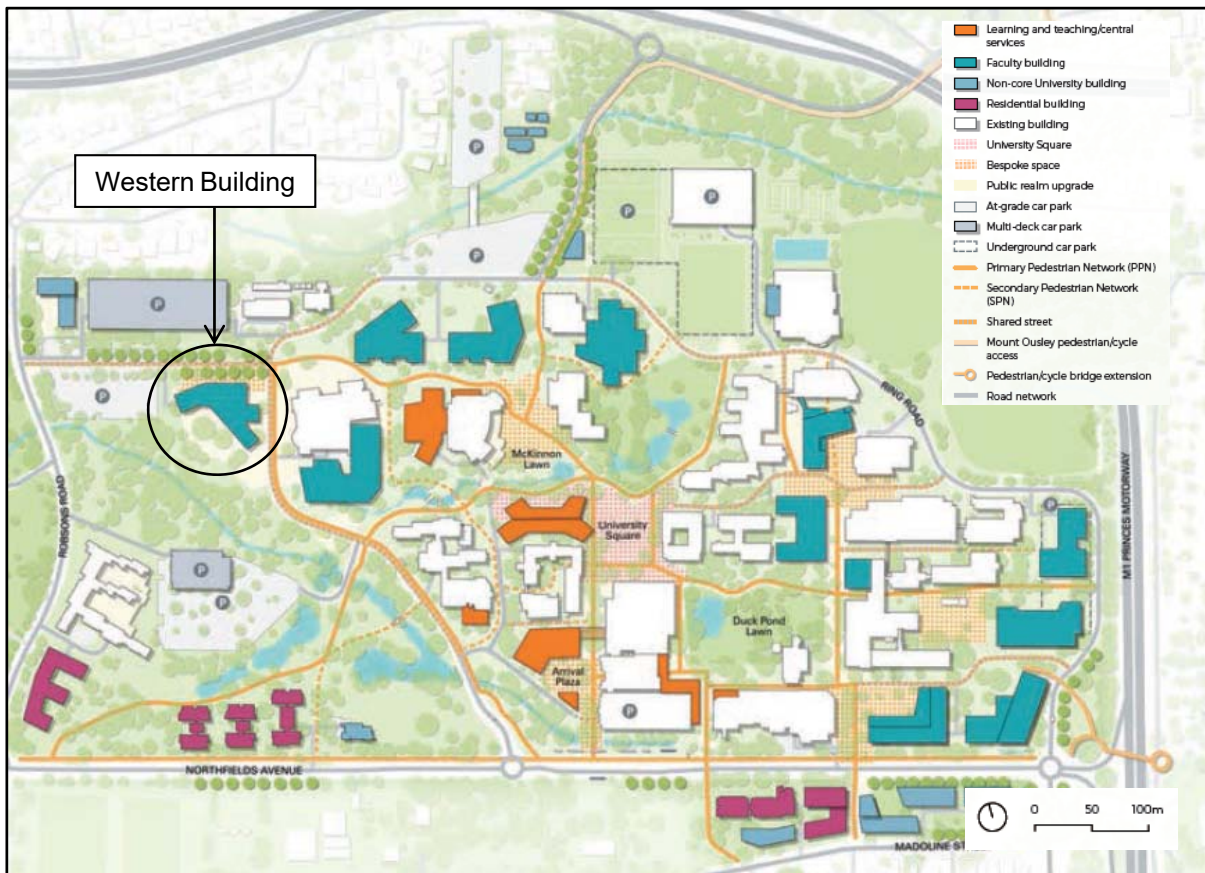


Figure 1: UOW Wollongong Campus Master Plan (source: UOW Master Plan)

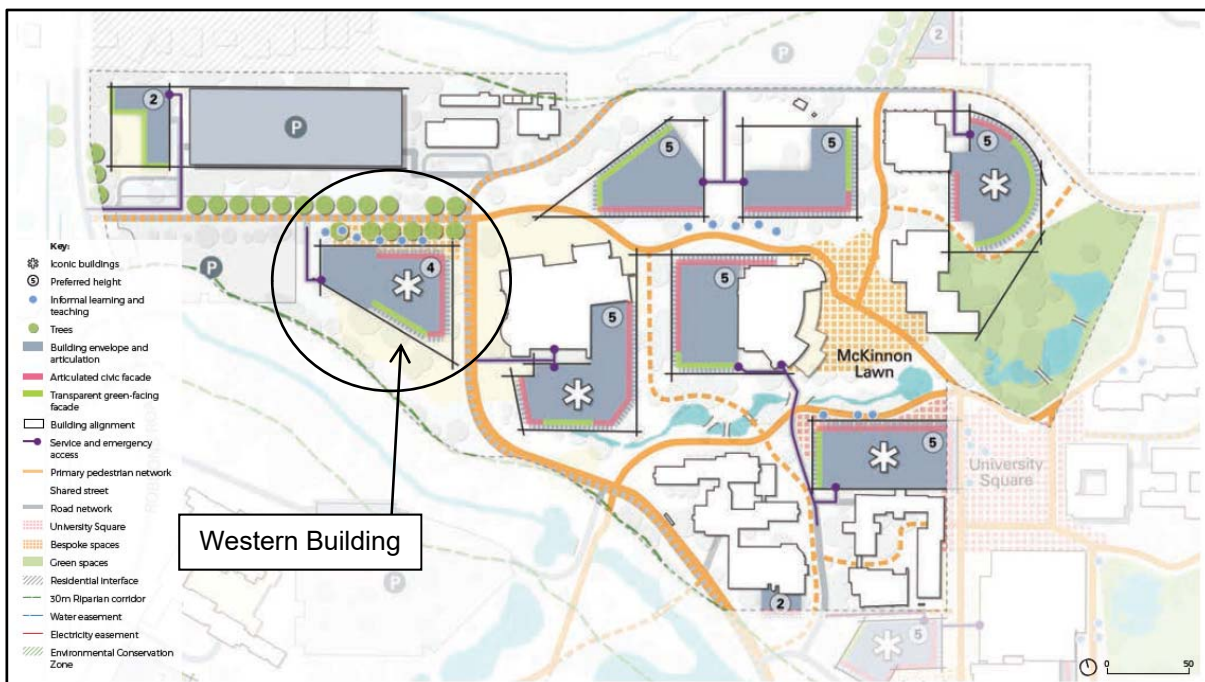


Figure 2: UOW Campus West (source: UOW Master Plan)

1.3 Site Description and Surrounding Development

The subject site is located within the UOW campus and is legally described as Lot 1 DP 1188267 on Northfields Avenue, Keiraville. UOW is situated in the Illawarra region, south of Sydney and approximately two kilometres from the Wollongong CBD, within the Wollongong local government area. The Illawarra escarpment is located to the east of UOW and the Pacific Ocean and railway line are both located to the west (**Figure 3**).

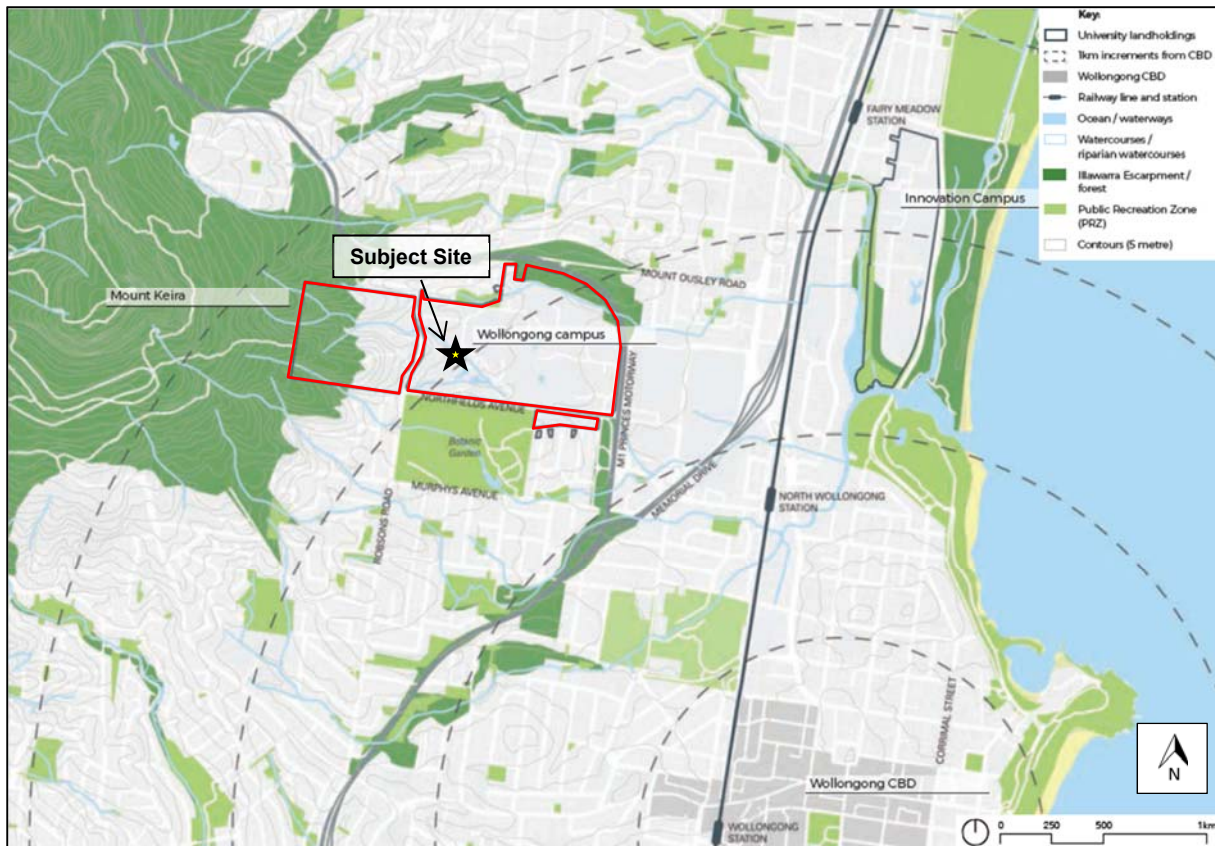


Figure 3: Site Location – UOW Wollongong Campus (source: UOW Master Plan)

UOW has an area of approximately 80 ha and is in the suburb of Keiraville, between North Wollongong Station and the Mount Keira foothills and is bound by the M1 (Princes Motorway) to the north. UOW is adjacent to the Illawarra Institute of TAFE and the Wollongong Botanic Gardens, within close proximity to the Wollongong High School of the Performing Arts, Keira High School and Para Meadows School, which together form an Education Precinct (allowing for the opportunity for sharing facilities). The UOW and TAFE are separated by the M1, linked by a pedestrian and cycle bridge and an indirect road connection via University Avenue (refer to **Figure 4**).

The site for the proposed Western Building is sited adjacent to carpark P4 (north and west), Ring Road (east) and a riparian corridor (south-west). North of the subject site is the UOW Distribution Centre and Facilities Management Division, east is UOW Early Start Discovery Space centre on the opposite side of the Ring Road, west is Robson Road beyond car park P4 and south is the southern carpark P3, beyond the existing riparian corridor (refer to **Figure 5**). The development site is currently occupied by large trees, demountable buildings and the eastern edge of carpark P4.

The locality is characterised by a mix of land uses, including residential development that surrounds the campus, recreational spaces to the south and north, and environmental conservation to the west of the site. There are a number of heritage items surrounding the subject site of Local to State significance. The State heritage Wollongong Botanical gardens in Keiraville is situated south west of the proposal. Corrimal Colliery, Mt Pleasant Colliery and Kemira Colliery

are located within a Heritage Conservation area approximately 300 m to the west of the subject site.

The project location is shown in **Figures 3, 4 and 5.**

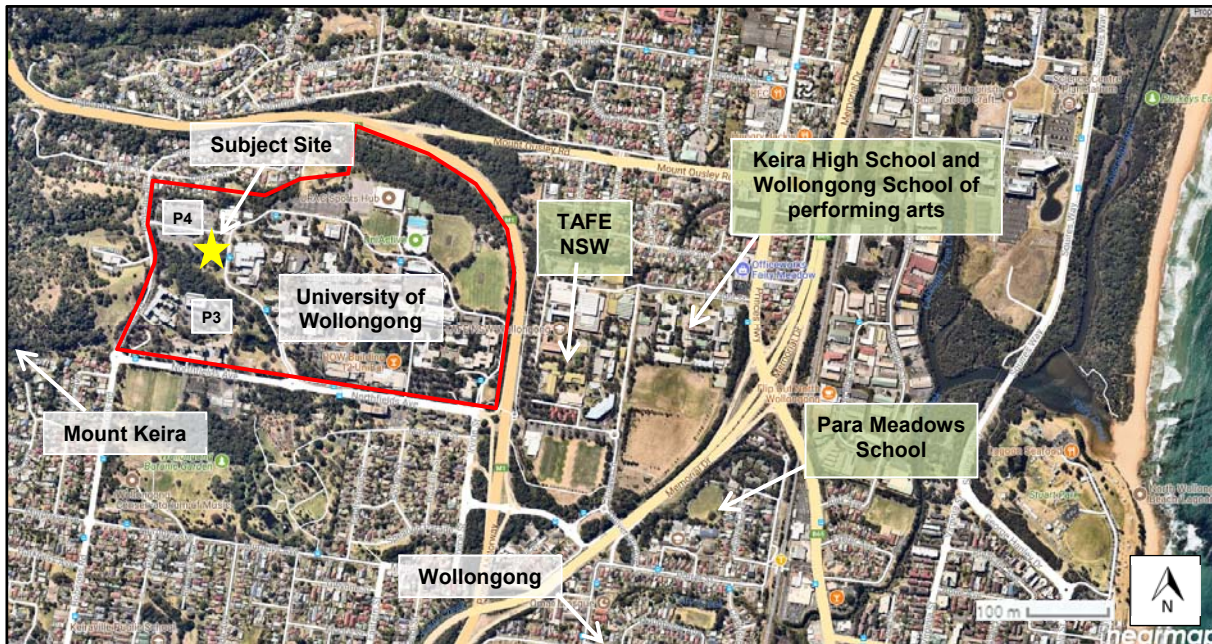


Figure 4: Project location and surrounding context (source: Nearmap)

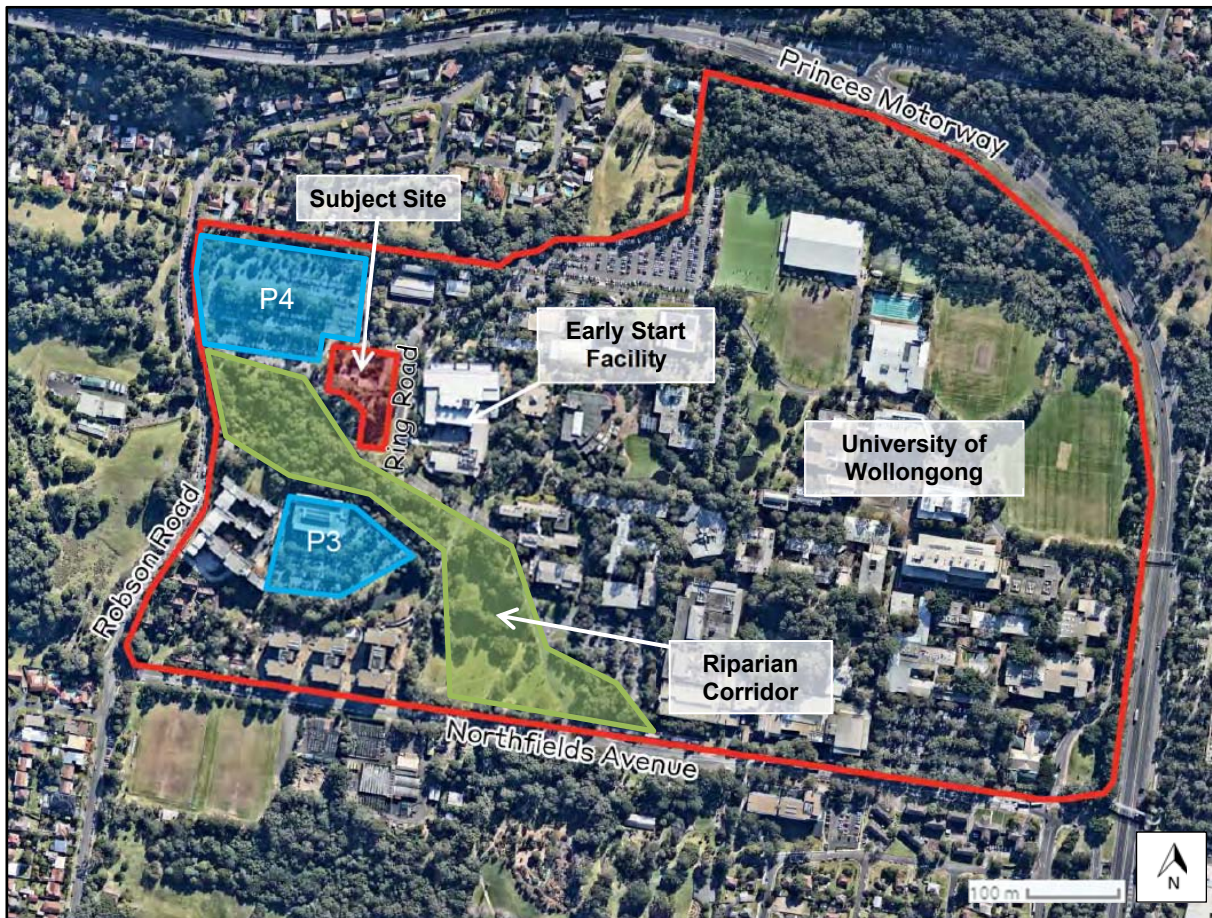


Figure 5: University of Wollongong Campus (source: EIS)

The 80 ha campus slopes west to east and is interspersed with pockets of dense vegetation. An existing riparian corridor zone runs from the northwest to southeast across the site with a series of ponds adjacent to the southern boundary between Northfields Avenue and the internal UOW Ring Road (refer to **Figure 5**). The western portion of the site is of a much higher gradient and forms the base of the Illawarra Escarpment.

UOW is divided into a series of interconnected precincts, with each precinct typically focused around a particular faculty. The proposed Western Building is located within the western campus precinct, comprising the Faculties of Law, Humanities and the Arts, Social Sciences and Business, along with the McKinnon building, UOW College and the Early Start Facility.

The Western Building will bring together various faculties that will benefit positively from the proposal, as the public domain and the surrounding pedestrian amenities will be upgraded, improving both the visual and physical connections within the campus.

2 DESCRIPTION OF PROPOSAL

2.1 Project Description

The proposal seeks approval for:

- demolition of two existing demountable buildings
- tree removal
- construction of a new four storey education building (plus rooftop plant), comprising of learning, research, rehearsal, theatres, studios, staff, labs and workshops spaces, end-of-trip facilities, and outdoor learning spaces
- ancillary landscaping, public domain works bicycle parking spaces.

The proposed Western Building will provide facilities for the School of Arts, English and Media (TAEM) from the Faculty of Law, Humanities and the Arts, and the schools of Health and Society (HAS), and Geography and Sustainable Communities (SGSC) from the Faculty of Social Sciences.

The proposed new Western Building will provide 9,329 sqm of gross floor area (GFA) (excluding plant), contributing towards the 34,000 sqm floor space target identified in the Campus Master Plan. The proposal also seeks approval for the removal of 113 trees, construction of an external arrival forecourt, bicycle storage/parking spaces and end-of-trip facilities, outdoor learning spaces, courtyard and performance space, terrace area, new landscaping and public domain enhancements. Student numbers are not expected to increase, however staff numbers during peak occupancy periods are expected to increase by 54.

As part of its Response to Submissions (RtS) the Applicant made amendments to the proposal to improve flood mitigation and to address the allocation of car parking in response to concerns raised by the Department and Council. The RtS also proposes to reduce the number of carpark P4 spaces impacted to only 104 spaces due to a proposed reconfiguration of the loading dock.

The key components and features of the proposal are provided in **Table 1** and are shown in **Figures 6 to 10**.

Table 1: Key Components of the SSD Application

Aspect	Description
Summary	Construction of a new Arts and Social Sciences building (Western Building) to accommodate improved educational facilities, an additional 54 staff, landscaping, public domain works and learning spaces
Demolition/Tree Removal	Demolition of two demountables and removal of 113 trees, as well as site preparation works to accommodate the new building, site access, stormwater drainage and landscaping
Built form	Construction of a new four storey education building (plus rooftop plant), to a maximum height of 22.3 m
Campus Area	80 ha
Height	The UOW 2016-2036 Wollongong Campus Master Plan demonstrates that a height of no more than four storeys of academic building for the Arts and Social Sciences (refer to Figure 6). The proposed development is four academic storeys, with rooftop plant.
Gross Floor Area (GFA)	9,329 sqm (excluding plant).
Uses	The building use is for learning, teaching and research purposes.
Car parking	Loss of 104 carpark P4 spaces – strategy proposed for both short and long-term parking demands
Bicycle Parking	A total of 13 bicycle spaces are proposed as part of the development, with a net increase of 11 bicycle spaces, as two bicycle spaces are lost in demolition
Public domain and landscaping	Currently existing on the development site are 232 trees, of which 113 are proposed for removal
Operational Hours	24 hours 7 days a week
Construction Hours	Monday to Friday 7am to 5:30pm Saturday 7:30am to 3:30pm Sundays and Public Holidays: No works
Signage	No building identification is proposed
Students and Staff	The total number of students is maintained whilst an increase of 54 additional staff members is expected
Capital Investment Value (CIV)	\$53,248,000
Jobs	Construction jobs – 140 Operational jobs – 54 (new staff)

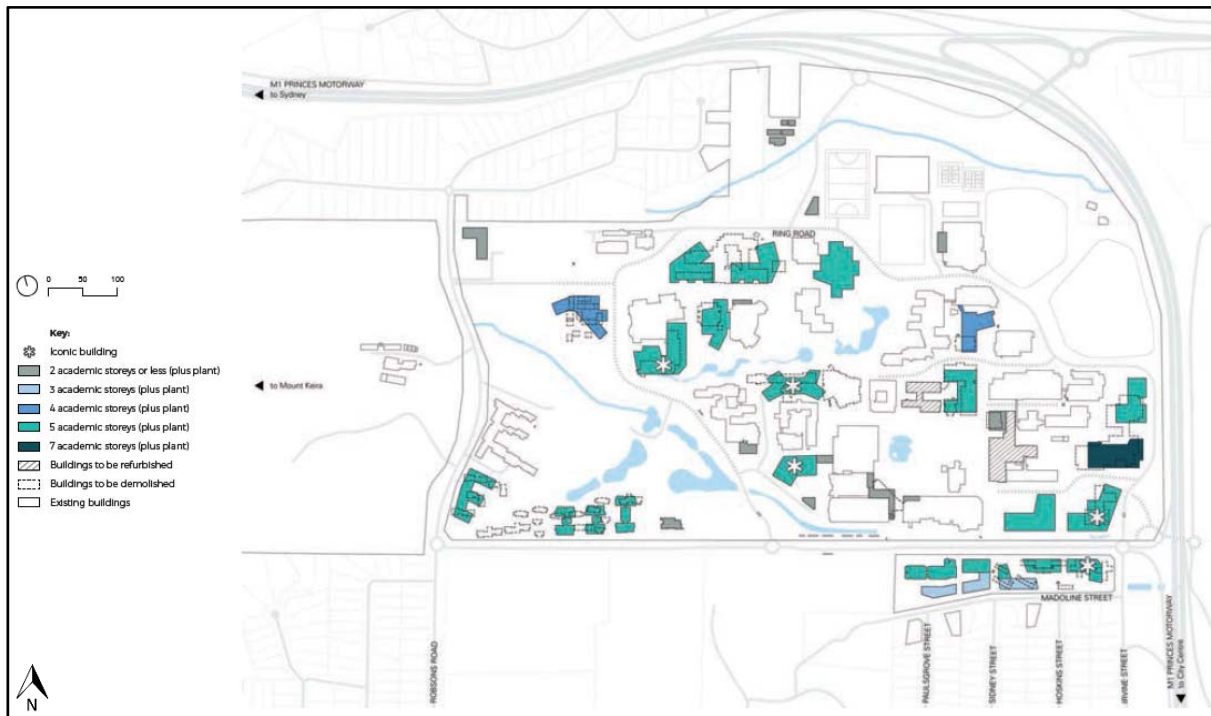


Figure 6: Building height requirements as per the UOW campus masterplan (source: UOW Master Plan)



Figure 7: Proposed building looking south west (source: EIS)



Figure 8: Proposed building looking north west (source: EIS)



Figure 9: Proposed building looking north east (source: EIS)

2.2 Project Need and Justification

The *Illawarra-Shoalhaven Regional Plan* provides the strategic policy, planning and decision-making framework to guide the region to sustainable growth over the next 20 years. The Plan applies to the Local Government Areas of Kiama, Shellharbour, Shoalhaven and Wollongong.

The UOW is located within Metropolitan Wollongong and forms part of the ‘education precinct’. This precinct includes UOW, the Institute of TAFE Illawarra and two high schools. These establishments offer economic and employment opportunities, particularly around the education and training sectors. The University is also closely linked too health education through the Wollongong and Shoalhaven hospitals.

The Regional Plan recognises UOW, the Innovation Campus and the defence industries at Nowra as ‘knowledge based’ assets that can be capitalised upon. A key action to support the asset is to prepare and implement a UOW Wollongong Campus Master Plan to guide the development of the main campus for the next 20 years. This Master Plan has recently been completed and builds on the high-quality landscape and public realm of the existing campus while improving its relationship to the surrounding community and connections to Wollongong and the region.

The proposal plays a key role in implementing the redevelopment of the western precinct of UOW in accordance with the Master Plan and will provide further educational and research opportunities.

Further, the proposal is consistent with:

- NSW State priorities to improve educational results by delivering a new educational facility
- The *State Infrastructure Strategy*, as it proposes new facilities to support the overall strategic objective of the strategy of delivering new education infrastructure
- Key actions in the *Future Transport Strategy 2056*, as it encourages an eventual modal shift from private vehicle use to public transport use in association with further redevelopment across the campus as envisaged in the UOW Master Plan
- It is consistent with the *Healthy Urban Development Checklist – NSW Health*, as the proposal provides for an education facility on a site in proximity to existing and proposed public transport and encourages usage of public transport, bicycle and walking.

The Applicant's justification states that the proposed Western Building is required to:

- provide an improved and state-of-the-art education facility within the Western Campus Precinct
- rationalise and coordinate university wide education infrastructure
- create a building of outstanding architectural merit that meets the University's functional requirements
- unlock further development potential within the Western Campus Precinct.

The Applicant advised further that the proposal would provide a range of new services that are better integrated to ensure the economic and social success of the University. The proposal will not result in any significant environmental impacts or serious threat of irreversible damage to the environment.

The Department has reviewed the Applicant's justification and associated documentation and considers the proposal to be appropriate.

3. STATUTORY AND STRATEGIC CONTEXT

3.1 State Significant Development

The proposal is SSD under section 4.36 (development declared SSD) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) as the development has a CIV in excess of \$30 million and is for the purpose of an educational establishment, as defined under clause 15 of Schedule 2 of State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP).

3.2 Consent Authority

The Minister is the consent authority under section 4.5 of the Act. In accordance with the Minister's delegation dated 11 October 2017, the Executive Director, Priority Projects Assessments may determine the subject application as:

- Wollongong City Council (Council) has not objected to the proposal
- no political disclosure statement has been made
- less than 25 public submissions have been received objecting to the proposal.

3.3 Permissibility and Zoning

The site is identified as being zoned SP2 Infrastructure (Educational Establishment) under Wollongong Local Environmental Plan 2009 (WLEP) and development for the purposes of educational establishments (including any development that is ordinarily incidental or ancillary to development for that purpose) is permissible with consent. The proposal satisfies the definition of

an ‘educational establishment’ and therefore, the Minister for Planning or a delegate may determine the carrying out of the development.

3.4 Environmental Planning Instruments

Under section 4.15 of the EP&A Act, the consent authority is required to take into consideration any environmental planning instrument that is of relevance to the development the subject of the development application. Therefore, the assessment report must include a copy of, or reference to, the provisions of any EPIs that substantially govern the project and that have been taken into account in the assessment of the project. The following EPI’s apply to the site:

- SRD SEPP
- State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP)
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017
- WLEP
- Draft Remediation of Land State Environmental Planning Policy (Draft Remediation SEPP)
- Draft State Environmental Planning Policy (Environment).

The Department has undertaken a detailed assessment of these EPIs in **Appendix B** and is satisfied the application is consistent with the requirements of the EPIs.

3.5 Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of the EP&A Act, as set out in section 1.3. The objects of the EP&A Act are the underpinning principles upon which the assessment is conducted. The statutory powers in the EP&A Act (such as the power to grant consent/approval) are to be understood as powers to advance the objects of the legislation, and limits on those powers are set by reference to those objects.

Therefore, in making an assessment the objects should be considered to the extent they are relevant. A response to the objects of the EP&A Act is provided at **Table 2**.

Table 2: Objects of section 1.3 of the EP&A Act relevant to the proposed development

Object		Consideration
(a)	<i>to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State’s natural and other resources,</i>	The development would ensure the proper management and development of suitably zoned land for the social welfare of the community and State. In addition, the proposal would provide employment opportunities on campus that are close to homes and public transport.
(b)	<i>to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,</i>	The proposal includes measures to deliver Ecologically Sustainable Development principles (see Section 3.6).
(c)	<i>to promote the orderly and economic use and development of land,</i>	The proposal is considered to be an orderly and economic use and development of the land as it is consistent with the Master Plan and will upgrade the UOW’s building stock, being fit-for-purpose within a broader educational precinct. The development would also economically serve the community through new construction jobs and infrastructure investment.

Object		Consideration
(d)	<i>to promote the delivery and maintenance of affordable housing,</i>	The proposal is for an educational establishment and does not include the provision of affordable housing.
(e)	<i>to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,</i>	The proposal does not impact on threatened species, vulnerable species, significant habitats, populations or ecological communities. The proposal includes extensive landscaping, which will provide for new habitat opportunities.
(f)	<i>to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),</i>	<p>The proposal will not impact on the significance of existing local and state heritage items, noting the distance separation and existing natural vegetation that assists in screening the proposal from areas outside of the campus. Further, the proposal is located over 300 m east of the existing heritage conservation area, that applies to the western portion of the site and would not impact on the escarpment's landscape heritage significance.</p> <p>The proposal is unlikely to have any impacts on Aboriginal cultural heritage given previous disturbances across the site from historical urban design associated with the University.</p>
(g)	<i>to promote good design and amenity of the built environment,</i>	The proposal has been designed to minimise potential environmental amenity impacts while maximising its internal amenity and to ensure a development with 'good design' is achieved (Section 5.2).
(h)	<i>to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,</i>	The proposal will involve the construction of a new, modern education building that incorporates energy and water efficient design initiatives that will minimise the consumption and use of natural resources. The proposal will also be constructed in accordance with the relevant Australian Standards and Building Code of Australia (BCA).
(i)	<i>to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,</i>	The Department publicly exhibited the proposed development as outlined in Section 4 , which included consultation with Council and other public authorities and consideration of their responses.
(j)	<i>to provide increased opportunity for community participation in environmental planning and assessment.</i>	The Department publicly exhibited the application and made the Applicant's Response to Submissions publicly available as outlined in Section 4 , which included notifying adjoining landowners, placing a notice in the press and displaying the application on the Department's website and at Council's office.

3.6 Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991* (see glossary at **Appendix C**). Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- the precautionary principle
- inter-generational equity

- conservation of biological diversity and ecological integrity
- improved valuation, pricing and incentive mechanisms.

The Applicant has also identified a range of ESD initiatives within the design of the project, including:

- use of glazed and opaque facades, efficient interior lighting and materials, centralised efficient air handling systems and efficient heating and cooling systems
- efficient fixtures and fittings, water efficiency and water reduction targets
- reducing the reliance on parking and encouraging sustainable transport initiatives
- utilising low impact materials to reduce the reliance on embodied energy and carbon
- creating a functional and aesthetically pleasing scheme to result in a positive societal outcome.

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision making process via a thorough and rigorous assessment of the environmental impacts of the project. The proposal is considered to be consistent with ESD principles as described in Section 5.15 and Appendix H of the Applicant's EIS, which has been prepared in accordance with the requirements of Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation).

The proposal is predominantly located on a previously developed and disturbed site. It will not result in the loss of any threatened or vulnerable species, populations, communities or significant habitats, however the redevelopment would result in a loss of 113 trees. As part of the landscape design, new plantings are proposed to offset this loss and the existing significant trees are to be protected and retained.

The Applicant advises that the proposal has been designed to achieve an equivalent 5-star Green Star rating under the Green Building Council of Australia. The Department has recommended a condition that requires the details of the final ESD initiatives implemented to be submitted to the satisfaction of the Certifying Authority prior to commencement of works.

The Department has considered the project in relation to the ESD principles. The Precautionary and Inter-generational Equity Principles have been applied in the decision making process by a thorough assessment of the environmental impacts of the project. Overall, the proposal is consistent with the ESD principles and the Department is satisfied the proposed sustainability initiatives will encourage ESD in accordance with the objects of the EP&A Act and EP&A Regulation.

3.7 Environmental Planning and Assessment Regulation 2000

Subject to any other references to compliance with the EP&A Regulation cited in this report, the requirements for Notification (Part 6, Division 6) and Fees (Part 15, Division 1AA) have been complied with.

3.8 Secretary's Environmental Assessment Requirements

On 29 September 2017, the Department notified the Applicant of the Secretary's Environmental Assessment Requirements (SEARs) for the SSD application. The Department is satisfied that the EIS adequately addresses compliance with the SEARs to enable the assessment and determination of the application.

4. EXHIBITION CONSULTATION AND SUBMISSIONS

4.1. Exhibition

In accordance with Schedule 1 of the EP&A Act (prior to the commencement of the Amending Act) and clause 83 of the EP&A Regulation, the Department publicly exhibited the application from 16 November 2017 until 15 December 2017 (30 days). The application was exhibited on the Department's website, at a NSW Service Centre; and at Council's Customer Service Centre.

The Department placed a public exhibition notice in the Wollongong Advertiser on 15 November 2017. The Department notified adjoining landholders and relevant State and local government authorities in writing.

The Department received a total of nine submissions during the exhibition of the application, comprising seven submissions from public authorities, including Council, and two submissions from the public, including one objection and a letter of support from a neighbourhood forum.

The Department has considered the comments raised in submissions during the assessment of the application (**Section 5**) and/or by way of recommended conditions in the recommended instrument of consent at **Appendix C**.

4.2.1 Public Authority Submissions

No public authority objected to the proposal, however, Council, Roads and Maritime Services, Transport for NSW, NSW Rural Fire Service, NSW Environment Protection Authority and Endeavour Energy provided comments for consideration in the Department's assessment of the application.

A summary of the issues raised in the submissions is provided in **Table 3** below and copies of the submissions may be viewed at **Appendix A**.

Table 3: Summary of submissions from public authorities

Wollongong City Council (Council)
Council does not object to the proposal, however, provided comments in relation to: <ul style="list-style-type: none"> • permanent car parking be provided within the campus to compensate for the loss of 130 spaces from the P4 car park • removal of the large trees on site would result in a negative impact on the overall amenity and natural environment and therefore the wholesale removal is not supported in principle • supports the Universities exemption from the payment of the S94A fees and advises that their request is in accordance with Councils clause (15 m, part i of the Wollongong Section 94 Development Contributions Plan 2017) • Council has recommended conditions to be imposed within the consent relating to traffic, stormwater, landscaping and environmental controls, should the application be supported.
Transport for NSW (TfNSW)
TfNSW does not object to the proposal, however, commented that access roads across the M1 Princes Motorway are to stay 'as is' so regular routes are not impacted. No recommended conditions were provided.
NSW Rural Fire Service (RFS)
RFS did not object to the proposal, however, provided the following comments: <ul style="list-style-type: none"> • the proposal is supported subject to compliance with the recommendations of the bush fire report prepared as part of the EIS • ongoing management of the 'Managed Riparian Area' shown in 'Figure 1: Bushfire Hazard Assessment' to outer protection area standards as set out in section 4.1.3 and Appendix 5 of <i>Planning for Bush Fire Protection 2006</i> and the NSW Rural Fire Service's document <i>standards for asset protection zones</i>.
Roads and Maritime Services (RMS)
RMS did not object to the proposal, however, provided the following comments: <ul style="list-style-type: none"> • RMS acknowledge that there will be a loss in car parking but additional car parking is proposed to offset the loss • the proposal to include additional bicycle facilities promotes sustainable travel • No recommended conditions were provided.
NSW Environment Protection Authority (EPA)
EPA did not object to the proposal, however, provided a number of concerns which require clarification including: <ul style="list-style-type: none"> • the number of demountable buildings and their proposed treatment • the total number of trees on site • construction hours • groundwater and potential pollution to waters

- inconsistent information within the acoustic report, noise levels within the management plan are to meet ICNG (Interim Construction Noise Guideline) requirements
- missing information for borehole CBH05 within the Contamination Assessment Report prepared by Coffey Services Australia Pty Ltd.

Endeavour Energy

Endeavour Energy did not object to the proposal, however, provided a recommendation that the applicant is to submit an application for connection of additional load via Endeavour Energy's Network Connections Branch. In addition, it requested the following:

- ongoing maintenance of access to the existing electrical infrastructure adjacent
- landscaping should meet Endeavour Energy's Vegetation Management program and/or the provisions of the *Electricity Supply Act 1995 (NSW)* Section 48 'Interference with electricity works by trees'
- prior to any underground activity, the Applicant is to obtain advice from Dial before you dig 1100 in accordance with the requirements of the *Electricity Supply Act 1995 (NSW)* and associated Regulations
- demolition work is to be carried out in accordance with *Australia Standard AS 2601-2001 'The demolition of structures'*. Disconnection of all liable sources of danger during demolition
- public safety is to be considered during works.

Office of Environment and Heritage (OEH)

OEH advised it had no comments on the proposal.

The Department has fully considered the issues raised in submissions in its assessment of the development as detailed in **Section 4** of this report.

4.2.2 Public Submissions

The Department received one submission from a member of the public objecting to the proposal on the following grounds:

- the loss of car parking spaces
- leasing parking spaces would drain university resources
- charging for parking spaces would lead to further loss of amenity to neighbours.

A submission was also received from a neighbourhood forum in support of the proposal, requesting that funds be made available for footpaths and cycleways serving primarily the University.

4.2. Response to Submissions

Following the exhibition of the application, the Department placed copies of all submissions received on its website and requested the Applicant provide a response to the issues raised in the submissions.

On 25 June 2018, the Applicant provided a Response to Submissions (RtS) (**Appendix A**) on the issues raised during the exhibition of the proposal. The RtS contained additional information (including revised technical reports) and responses to the matters raised, including traffic and parking, construction traffic, flooding, demountable building demolition, tree removal, noise impacts and contamination. The RtS also proposed the following minor design amendments in response to the issues raised:

- amendments to the loading dock configuration to reduce the number of parking spaces lost in carpark P4 (down from 130 spaces to 104 spaces)
- culvert upgrades at Robsons Road and future removal of flood wall and localised grading.

The RtS was made publicly available on the Department website and was referred to the relevant public authorities. An additional four submissions were received from public authorities, including Council, TfNSW, EPA and Endeavour Energy. A summary of the issues raised in the submissions is provided at **Table 4** and copies of the submissions may be viewed at **Appendix A**.

Table 4: Summary of public authority submissions to the RtS

Council
Council raised continued concerns in relation to the following matters: <ul style="list-style-type: none"> the parking strategy is reliant on separate assessment and application processes and is therefore unable to be guaranteed which could result in traffic and car parking impacts a permanent parking solution should be provided the proposed tree removal will adversely impact on the setting and amenity of the locality.
TfNSW
TfNSW provided no further comments on the proposal following its review of the RtS.
EPA
The EPA comments that the RtS addresses the issues originally raised in its submission on the EIS.
Endeavour Energy
No objections were raised by Endeavour Energy who provided additional comments regarding future requirements regarding network capacity connections, easement management/network access and asset relocation.

5. ASSESSMENT

5.1. Section 4.15(1) Matters for Consideration

Table 5 identifies the matters for consideration under section 4.15 of the EP&A Act that apply to SSD, in accordance with section 4.40 of the EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 5** (Key and Other Issues) and relevant appendices or other sections of this report and the EIS, referenced in the table.

The EIS has been prepared by the Applicant to consider these matters and those required to be considered in the SEARs and in accordance with the requirements of section 4.12 of the EP&A Act and Schedule 2 of the EP&A Regulation.

Table 5: Section 4.15(1) Matters for Consideration

Section 4.15(1) Evaluation	Consideration
(a)(i) any environmental planning instrument	Satisfactorily complies. The Department's consideration of the relevant EPIs is provided in Appendix B of this report.
(a)(ii) any proposed instrument	Not applicable
(a)(iii) any development control plan	Under clause 11 of the SRD SEPP, development control plans (DCPs) do not apply to SSD.
(a)(iiia) any planning agreement	Not applicable
(a)(iv) the regulations	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(a)(v) any coastal zone management plan	Not applicable.
(b) the likely impacts of that development including environmental impacts on both natural and built environments, and social and economic impacts in the locality.	The Department's assessment has given appropriate consideration to the likely impacts of the proposal and is satisfied they can be appropriately mitigated or conditioned, refer to Section 5 of this report.
(c) the suitability of the site for the development	The site is suitable for the development as discussed in Sections 3 and 5 of this report.
(d) any submissions	Consideration has been given to the submissions received during the exhibition in Section 4 and 5 of this report. Key issues raised in submissions have been considered further in Section 5.2 of this report.
(e) the public interest	Refer to Section 5 of this report.

Section 4.15(1) Evaluation	Consideration
Biodiversity values impact assessment not required if: (a) On biodiversity certified land (b) Biobanking Statement exists	A Flora and Fauna Assessment Report accompanying the EIS concludes that the proposal will not impact on the surrounding native vegetation or habitat.

5.2. Key Assessment Issues

The Department has considered the EIS and the issues raised in submissions in its assessment of the proposal. The Department considers the key issues to be:

- traffic and car parking
- noise and vibration impacts
- built form and urban design
- landscaping and public domain.

Each of these issues are discussed in the following sections of this report. Other issues were taken into consideration during the assessment of the application and are discussed at **Section 5.3**.

5.2.1. Traffic and car parking impacts

The Applicant has prepared a Transport and Accessibility Assessment (TAA) and a preliminary Construction Management Plan that considers the potential impacts the proposal may have on traffic and parking. The Applicant also submitted a copy of a parking agreement between UOW and TAFE NSW.

A TAA Addendum report was also provided with the RtS that provided further clarification of the proposed car parking demand management strategy in conjunction within the extension of carpark P5 and development of the new Molecular Life Sciences Building (MLS Building) (SSD 8096).

The Department considers the key transport issues relating to the proposal to be car parking, sustainable transport and construction traffic, which are addressed in further detail below.

Car Parking

The UOW currently contains 3,255 car parking spaces and 88 motorcycle spaces on campus. The proposal is location in proximity to carparks P4 and P5, located in the north-western portion of the campus (see **Figure 10**).

The proposal, as amended in the RtS, will result in the loss of 104 existing car parking and seven motorcycle spaces within existing carpark P4. Based on private vehicle usage rates and 54 additional staff, the proposal generates a demand for approximately 39 spaces. The proposal therefore generates a car parking demand of 143 spaces, having regard to the additional demand and spaces lost from carpark P4.

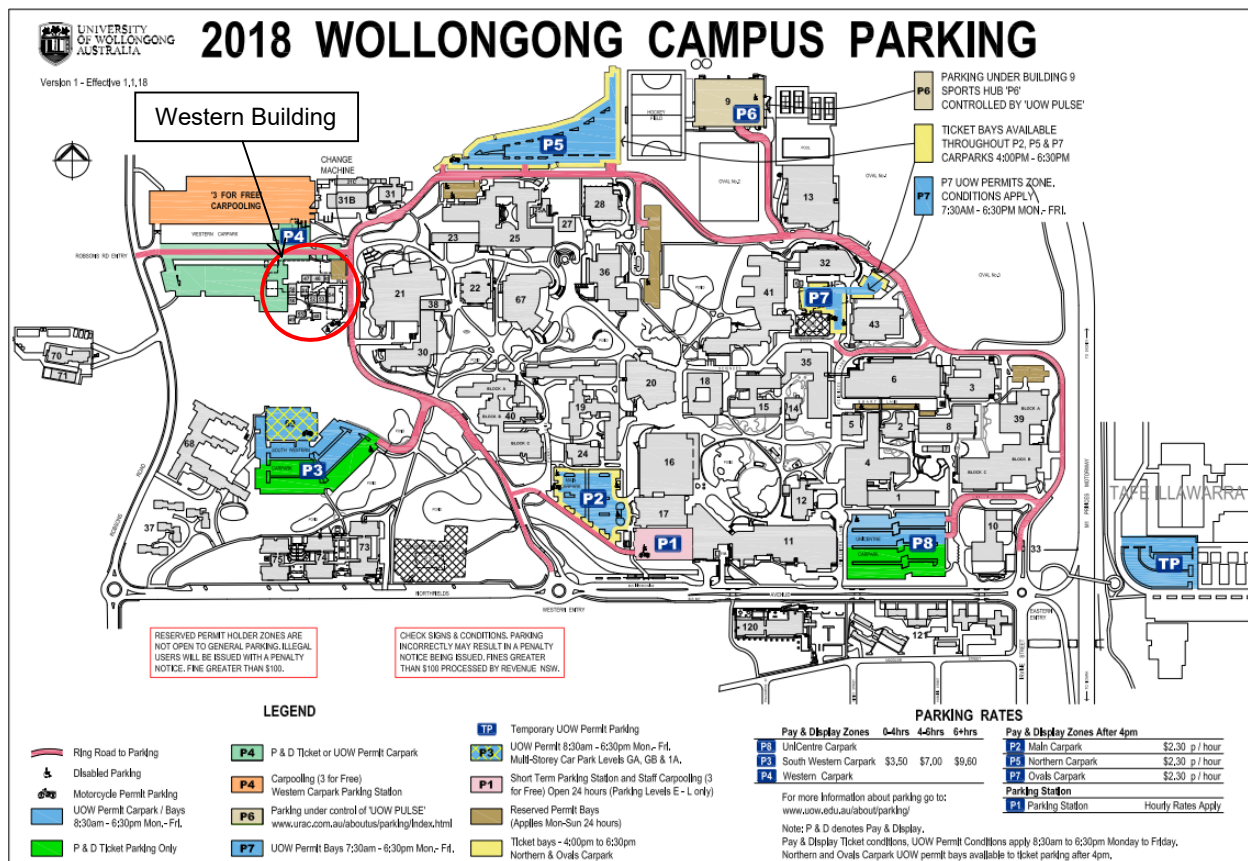


Figure 10: Campus car parking (source: UOW website)

Concerns were raised during the exhibition of the proposal by Council and one public submission regarding potential off-site car parking impacts generated by a proposed shortfall of car parking spaces. The Department also requested the Applicant clarify how the car parking demand generated by the proposal would be adequately managed in conjunction with the cumulative impacts associated with the demand for 118 spaces generated by the proposed development of the UOW MLS Building, and to demonstrate that sufficient on-site car parking would be available to cater for the development at all times. The approval for the MLS Building contains a condition that prevents commencement of construction works until a lease has been signed for short-term use of TAFE NSW parking spaces. Cumulatively, the subject proposal and the UOW MLS Building generate a car parking demand of 261 spaces.

In response, the Applicant developed a parking strategy to address the parking demands generated by the two new buildings. Key components of the Applicant's parking strategy regarding parking supply, as outlined in the RtS, include:

- UOW and TAFE NSW Wollongong Campus lease agreement for the use of 201 parking spaces until 2021, inclusive of 190 car parking spaces and 22 motorcycle parking spaces (the equivalent to 11 car parking spaces)
- proposed 248 space expansion of carpark P5 (currently under assessment by Council - DA/2017/376).

The strategy proposes a staged construction and car parking activation approach to accommodate the car parking demands as outlined in **Table 6** below. **Figure 11** details the location of the TAFE NSW car park and carpark P5 in context with the proposal.

Table 6: Car Parking Strategy (timing on net available parking spaces sequential from top to bottom)

Parking Infrastructure	Car parking spaces (supply/demand)	Total avail. car spaces	Motorcycle parking spaces (supply/demand)	Total avail. motorcycle spaces	Timing of delivery
TAFE Lease Car Park	+190	190	+22 (=11 car spaces)	22	August 2018
MLS Construction Commences	-71	119	0	22	August 2018
Western Building Construction Commences	-104	15	-22	0	October 2018
Carpark P5 Expansion Finished	+248	263	+28	28	February 2019
Convert 22 motorcycle spaces at TAFE to 11 car parking spaces	+11	274	-22	6	February 2019
MLS Building Occupied	-47	227	0	6	October 2019
Western Building Occupied	-39	188	0	6	February 2020
Carpark P4 Reconfiguration	+13	201	0	6	Prior to TAFE Lease Expiry
Expiry of TAFE Lease Car Park	-201 (incl. 22 motorbike spaces)	0	0	6	30 June 2021

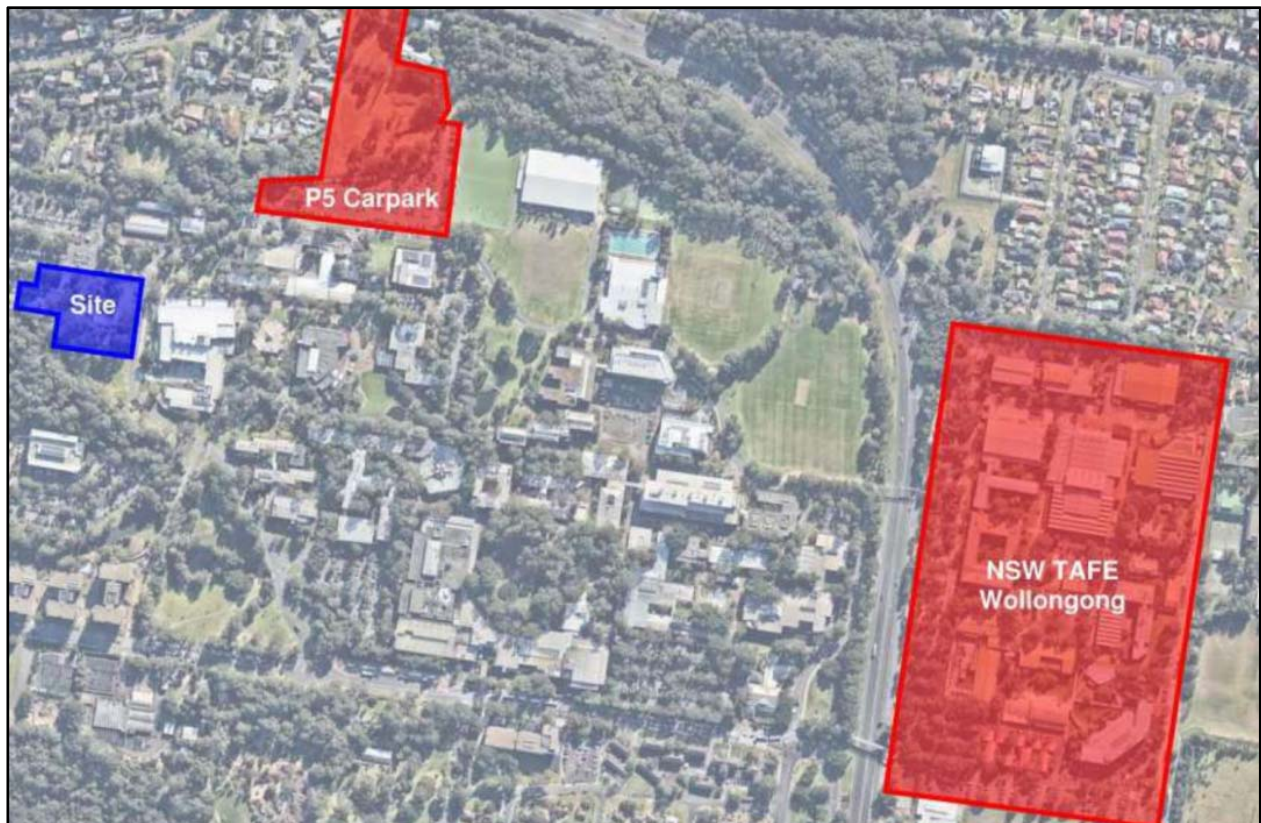


Figure 11: Location of car parking infrastructure (source: TAA Report)

The Department notes that the proposed 248 carpark P5 spaces and proposed 13 spaces created through the reconfiguration of carpark P4 will cater for ultimate cumulative car parking demand generated by both the Western Building and the MLS Building.

The Applicant also states that the University Master Plan will provide a long-term solution to ensure demand generated by the campus is accommodated on-site. Further, UOW are investing approximately \$1.35 million towards the establishment of free public transport arrangements for students, staff and visitors to the campus, including a UOW Shuttle and subsidised Gong Shuttle.

The Applicant advises these initiatives have been proposed in response to State and Local government drivers to reduce the reliance on private vehicle trips.

The Department is encouraged by the UOW's commitment to the delivery of more sustainable and public transport modes that will reduce the reliance on private vehicle trips. However, the proposed car parking strategy to cater for the subject proposal is heavily reliant on Council approving the UOW's development application (i.e. DA/2017/376) for the expansion of carpark P5. While the Applicant advises that a determination of the application is imminent from Council, the Department considers it appropriate that a condition of consent be imposed requiring evidence of the finalisation of the TAFE lease prior to the commencement of any construction works for the Western Building. A condition of consent is also recommended that restricts the occupation of the new building until the carpark P5 extension has been completed and is operational.

In the short-term, the Department is satisfied that through the implementation of the proposed car parking strategy, the car parking demand generated by the proposal can be accommodated and not generate any significant off-site parking impacts.

Sustainable Transport

The UOW encourages sustainable transport measures through their continued implementation and review of its Transport Project 2008 (TP). UOW's TP includes biannual transport surveys that informs and reassesses sustainable strategies to ensure sustainable outcomes are actively pursued.

Current UOW mode share data indicates that 53 per cent of trips are attributed to private vehicles, 35 per cent for public transport and approximately 12 per cent for active transport. The survey results have shown a trend in the uptake of public transport since 2007, though compared to the mode share of the UOW as a whole, individually, staff have a much higher private vehicle mode share at 79 per cent.

In an effort to continue to push down on the higher staff private vehicle mode share, four strategic objectives for sustainable travel have been identified as follows:

- improve existing access constraints by increasing walking, cycling, priority of public transport, and road safety for pedestrians to meet current and future demands
- improve active transport, by prioritising walkability and accessibility on campus, improving cycling incentives and infrastructure
- improve public and shared transport for access to the campus, as well as growth of bus services to and from the campus to meet current and future demand
- maximise UOW parking use to meet current and future demand, reducing reliance on parking by prioritising on-site parking for carpooling.

Initiatives currently being implemented across the campus as result of the transport strategy include a free shuttle service to the campus, the promotion of carpool services, real-time parking information, and the provision of bicycle parking within campus in excess of current demand.

End-of-trip facilities are also available on campus, with six 'bike bases' provided that includes free shower and change room facilities for staff and students. The proposed Western Building includes provision of 13 secure bicycle spaces in the north-western corner of the site, and end-of-trip facilities such as lockers on the ground floor and a shower on each floor of the building.

The Department supports the sustainable transport measures currently being implemented at UOW and recognises the efforts the UOW has undertaken to date in encouraging the positive reduction in private vehicle usage through the uptake of more sustainable modes of transport, such as public transport, walking and cycling and setting further targets to reduce private vehicle usage.

The Department is satisfied the implementation and ongoing review of the UOW Transport Strategy will ensure the shift in transport behaviour to more sustainable modes continues.

Operational Traffic

The Applicant's TAA outlines the proposal will increase the UOW staff population by 54 staff members, resulting in an additional 78 daily vehicle trips, of which 39 vehicle trips would be generated during peak times. The proposal would also generate an additional eight public transport trips, five pedestrian trips and four cyclist trips during peak times, which can be accommodated within their respective networks.

Taking into consideration the growth expected in two years (including the application of a two per cent worst case scenario), Irvine Street and University Avenue are expected to operate near capacity at a level of service 'D' during the PM peak – i.e. manageable and considered to still operate at an appropriate level of service. All other intersections surrounding the UOW were calculated to continue to operate generally at a level of service of 'A' and 'B'.

The TAA states that the proposal would generate a minor increase in traffic, equating to an increase in vehicle volumes by approximately three to four per cent during peak hours. However, this increase is considered to have a negligible impact on existing traffic conditions and the decrease in level of service at the Irvine Street and University Avenue was primarily due to the worst-case background growth.

The Department notes that no traffic concerns were raised by RMS or Council during the exhibition of the proposal and that no issues were raised with the data presented in the Applicant's TAA. The Department is satisfied that the additional private and public vehicle trips generated by the proposal can be satisfactorily accommodated by the existing network. The inclusion of facilities within the proposed development to support active transport modes in conjunction with the UOW's existing sustainable transport measures will also assist in minimising any potential impacts on existing networks.

Construction Traffic

The proposed Western Building is anticipated to be constructed between 2018 and 2020 over a timeframe of 15 to 18 months, causing potential traffic and parking disturbances during this period.

A Preliminary Construction Traffic Management Plan (CTMP) prepared for the proposal identifies that Robson Road would be the main site access for construction traffic, with the use of ring road as a secondary option as per **Figure 12**. The proposed construction traffic routes have been selected to minimise the distance required for construction vehicles to travel on internal UOW roads.

The proposed routes would also limit the number of heavy vehicles on local roads, as the main road utilised would be the M1 Princes Motorway. Construction vehicle movements and turning paths will be further investigated following the appointment of a contractor. The final CTMP that will be prepared will be proposed to focus on:

- safe vehicle and pedestrian access
- maintain safe access to all adjacent car park areas and pedestrian thoroughfares
- fire egresses
- existing traffic flow and effects on surrounding road network
- truck routes
- RMS requirements
- authority permits and approvals
- existing service infrastructure in and around the site.

The Applicant does not expect the construction of the Western Building to generate a significant increase in the number of vehicle trips. Where higher movements are anticipated, it is proposed to stagger vehicle movements to minimise impacts on the local road network and to allow all

construction vehicles to be wholly contained within the worksite, thereby minimising potential impacts on the local UOW road network.

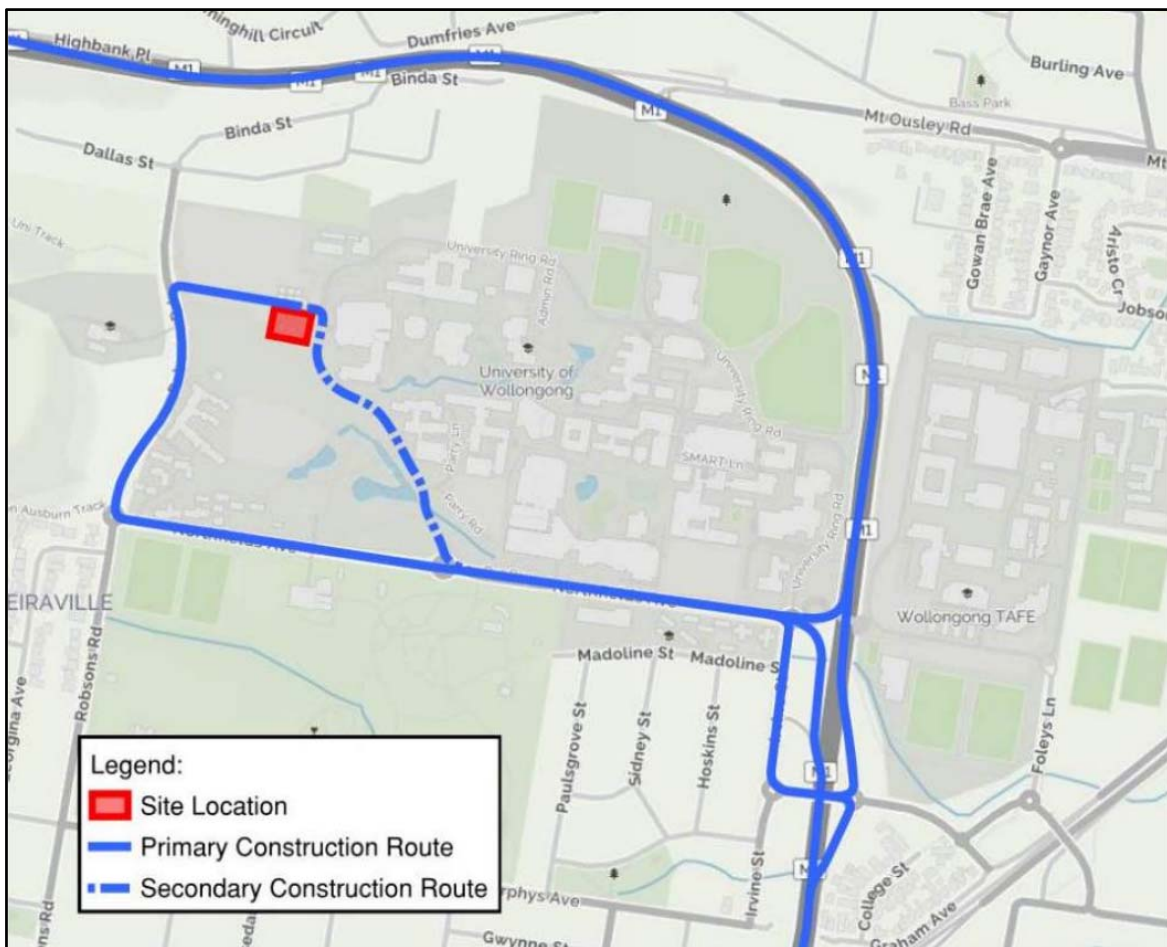


Figure 12: Construction Vehicle Access Routes (source: Construction Traffic Management Plan, EIS)

The Department notes that existing intersections surrounding UOW generally operate at a level of service of 'A' and 'B' and would be capable of accommodating additional construction vehicle trips within the network without generating adverse impacts.

Details provided in the RtS indicate that dedicated construction worker parking will not be provided on-site and that given the cost of parking within the site and restricted parking near the site, construction workers would be more inclined to take public transport to the site. Construction workers would also be able to use the existing shuttle bus that operates between UOW and North Wollongong Station and workers will be discouraged from driving as part of the induction process.

Potential also exists for cumulative impacts associated with the concurrent construction of the proposal and recently approved MLS Building. The approved MLS Building has an expected construction timeframe of 16 to 20 months and it is understood that construction works have not yet commenced. Potential therefore exists for the construction timelines of each project and the associated activities to overlap.

The Department previously assessed that construction of the MLS Building would contribute up to 40 additional vehicle movements per day, to and from the site, or four to five vehicle movements per hour. Intersections surrounding the MLS Building site were predicted to continue to operate at a consistent level of service between 'A' and 'C', with only a minor increase in delay predicted at the University Avenue and Porter Street intersection (i.e. change in level of service 'B' to 'C').

The Department notes that existing intersections surrounding UOW generally operate at a level of service of 'A' and 'B' based on the predicted 79 additional vehicle trips per day. Some minor decreases to intersection performance are predicted, though this was largely attributed to worst case scenario background growth and not university traffic.

Specific details of expected construction vehicle trips have not been provided at this stage. Given the similar development scales between the proposal and the approved MLS Building, it is not unreasonable to assume that the construction of the proposed Western Building would also have the potential to generate up to 40 additional vehicle movements per day.

In view of the above, it is therefore considered that the cumulative impacts associated with the concurrent construction of both the proposal and the approved MLS Building could be accommodated within the existing road network without adversely impacting on operational performances. It is also noted that the potential construction traffic impacts would be temporary in nature and will be appropriately managed throughout the construction period to mitigate any potential impacts.

The Applicant also detailed that a laydown area adjacent to the south of the proposed Western Building footprint (see **Figure 13**) would be provided to accommodate construction vehicles, with the final layout to be determined by the appointed contractor.

The Department concludes that potential traffic impacts associated with the construction of the proposal are capable of being appropriately managed and would have minimal impact on existing traffic conditions. The Department has recommended a condition of consent requiring a final CTMP be prepared prior to the commencement of construction to ensure that construction vehicle traffic and parking impacts are appropriately managed.

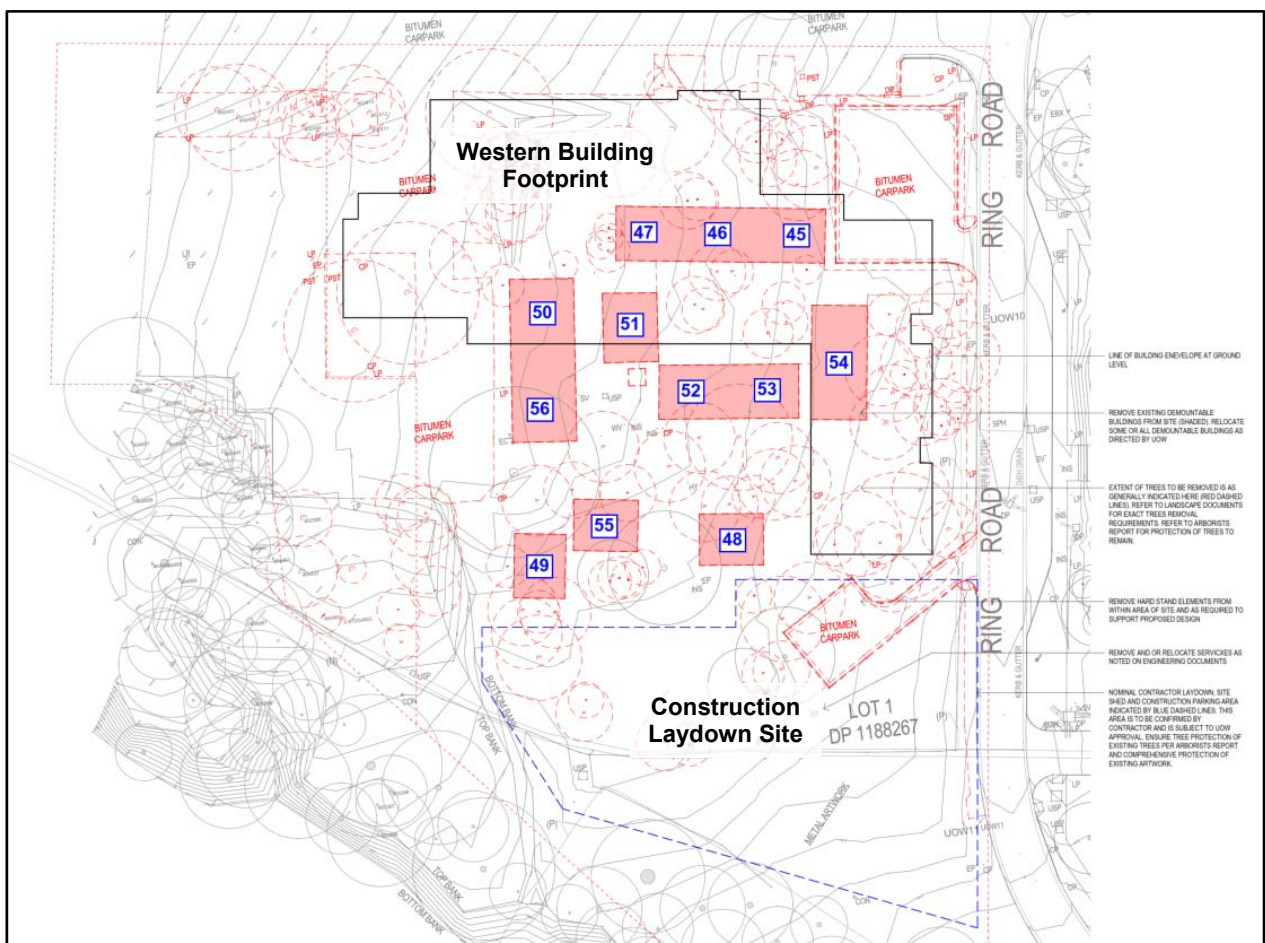


Figure 13: Location of construction laydown (source: RtS)

5.2.2. Noise and Vibration impacts

The EIS includes an Acoustic Report (AR) prepared by Arup that provides an assessment of the existing background noise levels (RBL), the potential impacts of construction and operational noise associated with the proposed development.

The existing acoustic environment on the Campus consists of surrounding educational buildings with minimal industrial noise exposure. The surrounding suburban acoustic environment is dominated by road traffic noise, particularly from the M1 Princes Motorway and Mount Ousley Road as well surrounding local roads.

The AR considered the nearest potentially affected noise sensitive receivers to be existing UOW educational facilities and surrounding residences. Short-term and long-term monitoring was undertaken at two locations considered to be the most significant noise sensitive receivers (see **Figure 14**).

In response to concerns raised by the EPA regarding the selection of the monitoring locations, the RtS provides a statement prepared by Arup that argues the location selection of Kooloobong Village as the sensitive receiver presented more reliable data due to the likely impact of highway vehicle noise on RBLs at Dallas Street residences. Arup also advised that reference to the recommended maximum amenity criteria was done so in error, though had no bearing on the Project Specific Noise criteria, as the more stringent intrusiveness criterion (RBL + 5 dB(A)) would apply regardless.

Dallas Street residences are located closer to the site than Kooloobong Village by approximately 30 m. The Department notes these residences would be impacted by traffic noise generated from the Princes Motorway/Mount Ousley Road that would likely result in higher RBLs than that recorded at Kooloobong Village. The Department therefore considers the noise monitoring locations adopted for the purpose of establishing the RBLs for the proposal are adequate. Details of the RBLs and Operational Noise Criteria are presented in **Tables 7** and **8**.



Figure 14: Location of noise monitoring loggers (source: Acoustic Report, EIS)

Table 7: Unattended noise logging results

Location	Time Period	Average over measurement period; dB LAeq, 15 mins	RBL, dB LA90, 15 mins
Kooloobong Village	Day	55	43
	Evening	47	38
	Night	47	35
Early Start Facility (early childhood learning/research)	Day	53	46
	Evening	49	40
	night	47	34

Table 8: INP noise criteria modifying factor corrections for duration

Receiver	Time period	Operational Noise Criteria		
		Intrusive Criterion	Amenity Criterion	Project Specific Criteria ¹
Residential Receivers				
Kooloobong Village	Day	48	60	48
	Evening	43	50	43
	Night	40	45	40
Other sensitive receivers				
Early Start Facility	Use hours	-	35	35
	Other times	-	-	-

Construction noise impacts

Earthworks, above ground works, traffic, plant and machinery has the potential to impact on the surrounding sensitive receivers. The Applicant proposes the following construction hours:

- 7am to 5:30pm Monday to Friday
- 7:30am to 3:30pm Saturday
- no work on Sunday or public holidays.

The Applicant's AR states construction works would potentially require the use of a broad range of typical construction plant and equipment, including bulldozers, dump trucks, petrol hand-held circular saws, cranes, concrete pump, cement mixer truck, core drill (Electric). Predicted noise level outputs and the locations of those impacted are presented in **Table 9** and **Figure 15**.

Table 9: Predicted construction noise levels (Source: Acoustic Report prepared by ARUP)

Location	Approximate predicted construction noise level (external)	Approximate predicted construction noise level (internal)
Building 21	82 dB(A)	59 dB(A)
Building 68	82 dB(A)	59 dB(A)
Building 73	75 dB(A)	52 dB(A)
Building 74	74 dB(A)	51 dB(A)
Building 75	74 dB(A)	51 dB(A)

The Department notes that the EPA requested the Applicant address predicted construction noise level impacts on surrounding sensitive education receivers to ensure compliance with the Interim Construction Noise Guideline (ICNG) is achieved.

In response, a statement prepared by Arup as part of the Applicant's RtS advises that a more detailed construction and vibration noise and vibration assessment would be undertaken by the appointed contractor. This would include tailored management measures to mitigate predicted noise impacts.

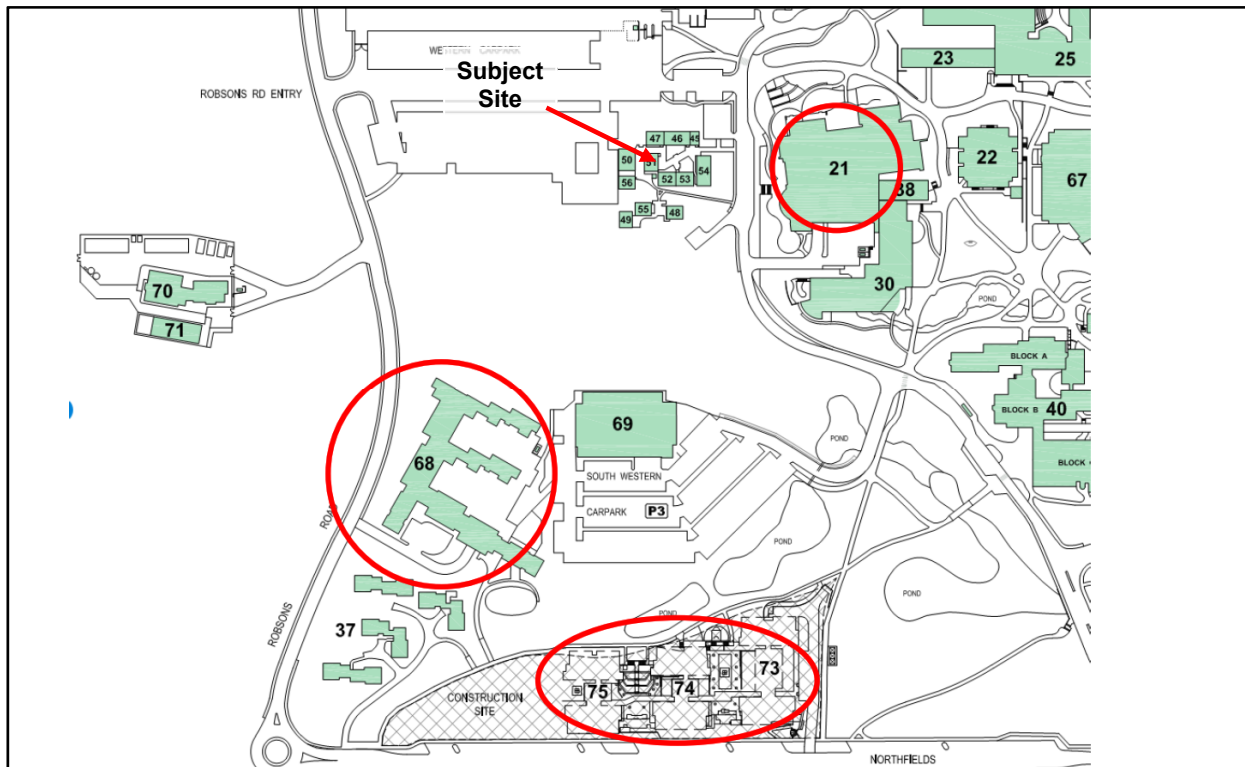


Figure 15: Location of sensitive receivers (source: Acoustic Report, EIS)

The Department notes that estimated construction noise level outputs are predicted to exceed the construction noise management levels for the proposal (i.e. RBL + 10 dB(A) and will therefore require the implementation of appropriate noise mitigation measures to manage noise level outputs during the construction period.

The Department acknowledges that a detailed assessment of potential construction noise levels will occur with the selection of construction machinery and methods. The consideration of this information is best placed as part of the final Construction Management Plan prepared for the proposal.

The Applicant has also prepared a Preliminary Construction Management Plan which provides a list of considerations to help mitigate potential noise and vibration issues associated with the construction of the development. The measures to reduce noise and vibration include:

- turn plant off that is not being utilised
- induction to low noise producing work practices for all staff, Contractors, site managers, and temporary equipment operators
- avoid noisy plant functions simultaneously adjacent to neighbouring facilities, where practical
- aim to orientate noisy equipment noise emissions away from adjacent facilities
- keep loading and unloading of materials away from adjacent building, where practical
- arrange the work site to minimise the use of movement alarms on vehicles and mobile plant
- install noise and vibration monitors, to record discomfort levels where applicable
- monitor work activities daily
- manage and investigate causes of excessive noise
- ensure workers are aware of the dangers associated with long term exposure to excessive levels of noise.

To ensure potential construction impacts are appropriately managed, the Department recommends conditions of consent requiring the preparation of a detailed Construction and Noise Vibration Management Plan that includes, but not limited to, the following information:

- an out-of-hours work protocol, including a detailed assessment of any works outside of standard construction hours, mitigation measures and notification/complaints arrangements as part of the required Construction Noise and Vibration Management Plan

- the exclusion of activities resulting in high-impact noise (including impulsive or tonal noise emissions) from the works outside of standard hours of construction
- the requirement that all construction activities comply with best practice vibration management criteria to ensure no adverse impact to existing buildings or structures
- the implementation of respite periods
- the requirement for the installation and monitoring of noise monitoring at sensitive receiver locations, including alert triggers to stop works when sensitive receivers become 'highly noise affected' (i.e. noise levels exceed 75 dB(A) in accordance with the ICNG)
- the requirement to carry out noise management measures in accordance with the AR noise controls (listed above).

Subject to the recommended conditions, the Department's assessment concludes the noise and vibration impacts generated during construction of the development can be appropriately managed and mitigated.

Operational noise impacts

The key source of operational noise associated with the Western Building are likely to be the mechanical equipment and theatrical/music spaces. Noise levels associated with the operation of the Western Building will be required to meet the Project Specific Noise criteria outlined in **Table 8** that outlines the noise levels required to achieve compliance with nearby sensitive receivers.

The following noise sources have been considered in the design:

- performance spaces, including theatres and the rehearsal/performance space during performances and rehearsals
- studios during music recording and practice sessions
- rooftop plant, such as AHUs, fans, chillers, pumps, water heaters and associated equipment.

The final details of the specific mechanical plant and equipment to be installed on the rooftop are not yet available. To ensure that operational noise from the mechanical plant and equipment is minimised, the Department recommends a condition requiring the Applicant to limit the emission of noise from the mechanical plant and equipment to a maximum of the background noise level plus 5 dB(A), in accordance with the Industrial Noise Policy.

The Department considers that the use of the building, including operation of the plant, is unlikely to generate adverse noise impacts but as there are numerous components of the redevelopment of the precinct that it would be prudent to require the Applicant to also undertake a noise monitoring program of the mechanical plant within 60 days of the commencement of use to verify that the measured noise levels do not exceed the noise criteria. The Department has recommended a condition of consent to ensure this occurs.

The Department considers, that subject to the implementation of recommended conditions the operational noise impacts generated by the proposal will be acceptable.

5.2.3. Built form and urban design

Built Form

The proposed Western Building will be four storeys in height with a proposed maximum building height of RL 60.30 and total GFA of 9,329 sqm. The Applicant advises that the 'L' shaped design of the new building provides for outdoor learning spaces and public domain, while the inclusion of full-height glass and floorplate modulations assists with activating building façades and optimizing views towards Mount Keira.

The proposed massing and scale of the proposal is considered to positively respond to the existing environment and site constraints. The siting of the proposal minimises its impact on the existing natural and built environment as practically as possible while also creating a strong street edge that

complements the Early Start Facility located opposite, and helps define the transition between the built environment and carpark P4 beyond.

The Applicant proposes to clad the building in a range of materials and finishes to complement the existing built form across UOW and the surrounding natural environment, comprising of:

- a warm colour palette that consists of timber, grey masonry and face brickwork
- expansive glazed windows, metallic finishes and vertical cladding and shading devices
- colorbond roofing (concealed from public views) with a glazed skylight system.

The combination of the proposed design and use of selected materials and finishes assist in breaking down the perceived mass of the proposal and will ensure it relates to its surrounding setting.

The Department has recommended a condition requiring that any proposed cladding material meets the requirements on the National Construction Code in terms of fire resistance.

The proposed building elevations are shown in **Figures 16 to 19**.

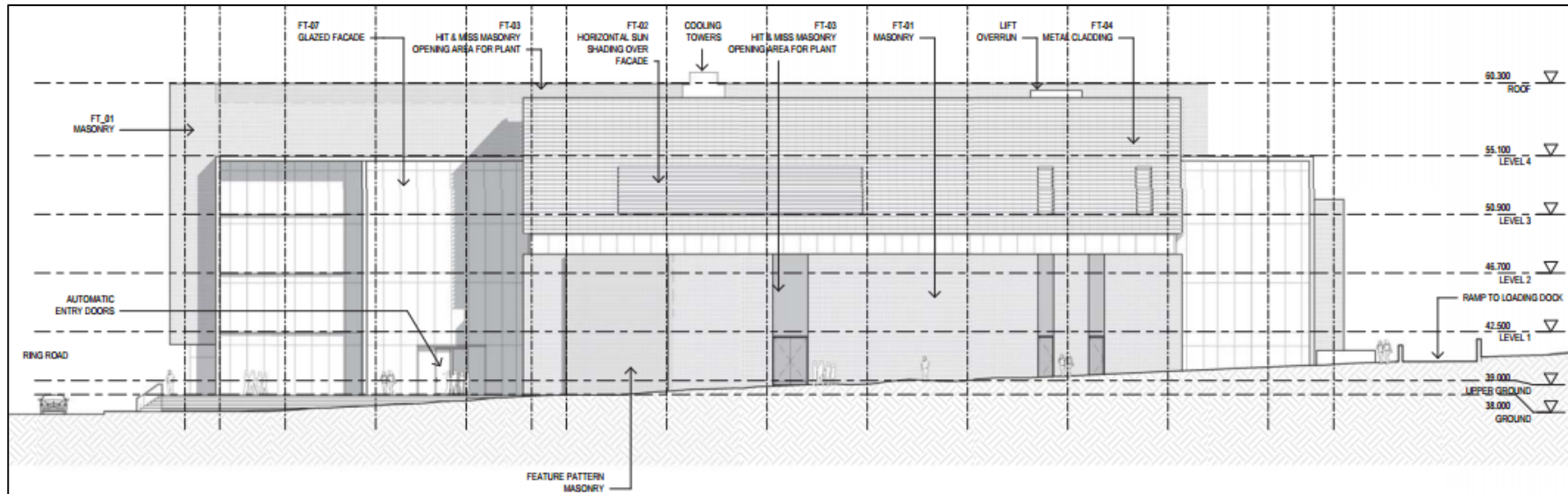


Figure 16: North Elevation (source: EIS)

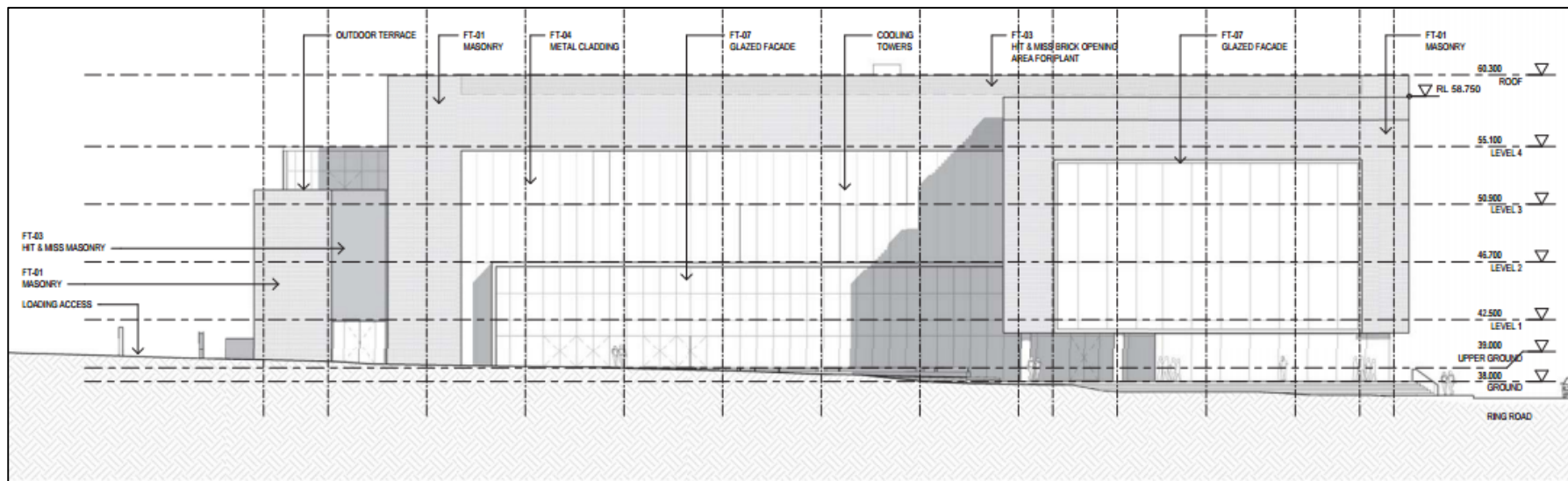


Figure 17: South Elevation (source: EIS)

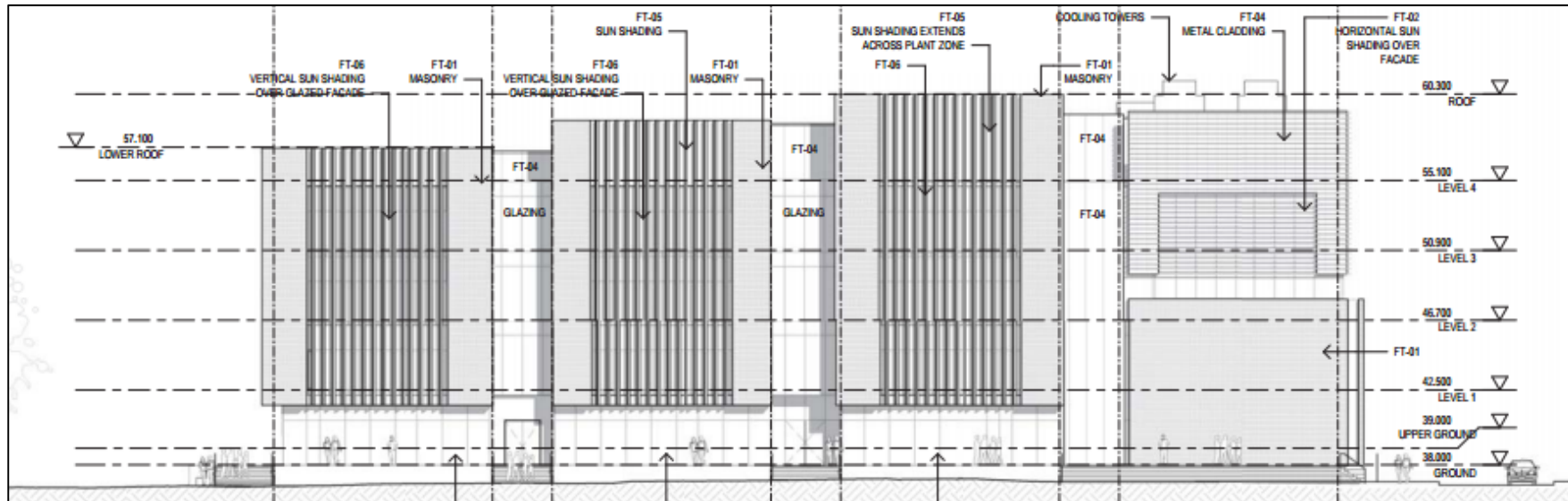


Figure 18: Eastern Elevation (source: EIS)

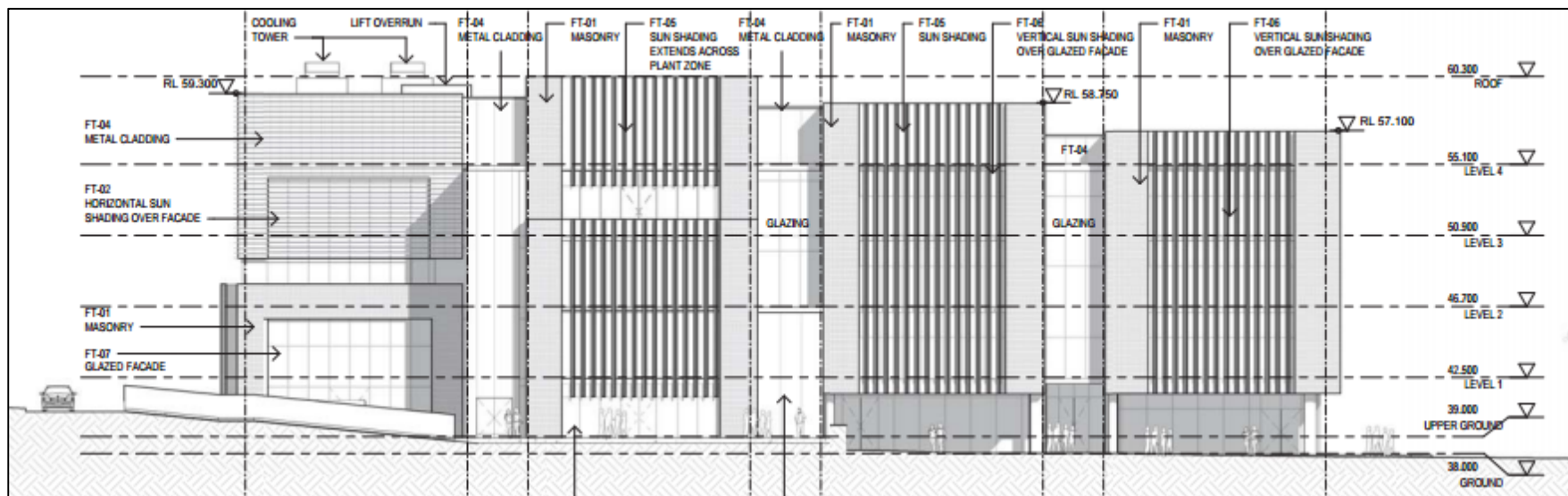


Figure 19: Western Elevation (source: EIS)

The proposed height of the Western Building will generate minor additional overshadowing of the Early Start Learning Facility opposite to the east during the afternoon on the winter solstice (see **Figure 20**). The additional shadows created would have minimal impacts, with the predominant impacts generated confined to the development site.



Figure 20: Shadow Diagram of the Winter solstice at 9am, 12 noon and 3pm on 21 June (source: EIS)

The proposed building will overshadow open space and some areas of public domain during the winter solstice, however this is considered acceptable as the building has been appropriately situated to minimise surrounding visual impacts and the removal of significant trees.

The external treatment of the proposed Western Building supports the principles of Crime Prevention through Environmental Design (CPTED) as large glass windows expose areas surrounding the perimeter of the building to natural surveillance. In addition, access to the building out of operating hours is through a few strategically located swipe card access points. The proposed landscaping includes signage, fencing and retaining walls to create clear transitions and boundaries between public and private spaces. The inclusion of security cameras is added to increase a sense of security when utilising the spaces around the proposed Western Building. The Department considers the proposed Western Buildings built form appropriately addresses the principles of CPTED, which consist of natural surveillance, natural access control and territorial reinforcement.

The Department considers the proposed built form and massing is acceptable and appropriate for the following reasons:

- the proposed building is consistent in form, scale and character with the existing UOW
- the design and layout is an efficient use of the site taking advantage of the views to Mount Kiera
- the design is consistent with the UOW Master Plan and UOW design standards
- the design is consistent with CPTED principles
- the design has regard for best practice ESD
- the design responds to the future context of the campus, creating a positive environment by linking the west campus to the surrounding educational and public precincts as well as the broader campus
- the proposal will not result in an adverse impact on the environment or amenity of the surrounding area and will not overshadow significant areas of open space or public domain
- Council raised no objections or significant concerns with the proposed built form.

5.2.4. Landscaping and Public Domain

The landscape plan prepared by Taylor Brammer states that the landscape vision for the project is to integrate the Western Building into the fabric of the campus while strengthening the established landscape character. An Arboricultural Impact Assessment (AIA) was submitted in support of the proposed development, which identified that 113 trees were proposed for removal, of which, 17 trees were assessed as being structurally unsound and seven were identified as exotic species.

During the exhibition of the application, Council commented that it was concerned about the removal of the 113 trees identified for removal. Further, Endeavour Energy commented that any new vegetation should be planted away from underground services and the NSW Rural Fire Service advised that tree canopies should not be within two metres of any building eave to ensure that appropriate bushfire measures are in place.

The landscape scheme for the new Western Building (see **Figure 21**) proposes new replacement tree planting to compensate for the proposed loss, consisting of 57 new trees and five palms. The number of trees proposed for removal is reduced to 89 trees when taking into consideration trees identified in the AIA as being structurally unsound and/or exotic. Replacement planting proposed as part of the landscape scheme equates to approximately 72 per cent of the mature vegetation proposed to be removed.



Figure 21: Proposed Landscape Concept Plan (source: EIS)

It is acknowledged that the site’s tree coverage will still be in deficit (compared to current conditions), however, the loss is considered acceptable given the quantity of proposed replacement vegetation, the existing UOW campus site constraints and the process through which the site was identified for the purposes of the proposed development. In this respect, the Department notes that strategic planning undertaken during the preparation of the UOW Master Plan, identified the site as a preferred location for future built form.

The replacement vegetation proposed as part of the landscape scheme will ensure that the impact on the natural environment is minimised. In addition, a variety of trees are being maintained to ensure overall amenity within the site is sustained.

The public domain has been designed to consider the Western Building’s proposed use as well as the buildings orientation. Due to the buildings proposed shape, the majority of the new public spaces are located facing south and away from residential dwellings outside campus grounds. This area has been designed to create a series of interesting spaces for visitors, students and staff that link the existing natural environment adjoining the riparian corridor into the public domain.

The proposed recessed north-eastern corner of the building form creates a small public space at the building’s entrance, helping to activate this space and adjoining public domain.

5.3. Other issues

The Department’s consideration of other issues is provided at **Table 10**.

Table 10: Department’s assessment of other issues

Issue	Consideration	Recommendation
Contamination	<ul style="list-style-type: none"> • Site history information indicates that the site has been used as an educational facility since the early 1970’s. Prior to this time, iron, steel making and a coal mining company owned the land. Aerial photographs indicate prior to the 1970’s the site was undeveloped and generally unused. • Eleven sampling locations and one groundwater monitoring were used to assess three AECs identified at the site. The AECs were: <ul style="list-style-type: none"> ○ AEC 1: Potential weathering of hazardous building materials and pesticide use ○ AEC 2: potential presence of imported fill of unknown origin and quantity ○ AEC 3: Potential presence of septic tank. • The Applicant’s Contamination Assessment concludes that the site has a <i>“low likelihood for being affected by contamination that would pose an unacceptable risk to human health or the environment under the proposed development scenario”</i>. No further investigation or remediation is considered to be warranted at this stage. During construction, the presence of the septic tank is to be confirmed and if so, this should be excavated with appropriate management measures. • The Department considers that hazards and risk associated with construction and operation can be managed and mitigated. • The Department notes that no objections were raised to the findings and recommendations of the Contamination Assessment. • To provide an additional level of protection, the Department recommends the Applicant prepare an Unexpected Finds Management Plan. • The Department has also recommended a condition requiring that appropriate measures be implemented for the disposal of any asbestos that may be found during the demolition of the demountables. • The Department is satisfied that the Applicant has adequately addressed clause 7 of SEPP 55 and that the site can be made suitable for its intended use. 	The Department has recommended a condition requiring the preparation of an ‘Unexpected Finds Management Plan’ and management of any asbestos disposal.
Flooding, Stormwater and drainage	<ul style="list-style-type: none"> • The subject site is affected by the 1% AEP and Probable Maximum Flood (PMF) flood. 	The Department has recommended the implementation of Council’s

	<ul style="list-style-type: none"> • Council did not provide any comments in relation to flood related issues, however did provide a number of recommended conditions relating to stormwater disposal. • Site stormwater will be collected from gutters and downpipes where in-ground conduits will convey the water to OSD tanks. After attenuation, the water will be discharged to the University’s in-ground stormwater system. The system will be designed to convey 5% AEP storm flow. The Civil report prepared by <i>Taylor Thomson Whitting</i> states that stormwater quality will be provided in accordance with Council’s water quality requirements. • A revised flood mitigation strategy was submitted as part of the RtS, which proposes the upgrade of an existing culvert in Robsons Road, west of the site (rather than the construction of a flood wall). The proposed upgrades will comprise of a new on-site detention storage facility designed to ensure flow rates across Robsons Road are not increased and ensure the site is not flood affected during the post development phases during the 1% AEP event. 	<p>recommended standard conditions of consent where relevant.</p>
<p>Utilities</p>	<ul style="list-style-type: none"> • Endeavour Energy raised issues in relation to connection, load capacity, easement and substation. • Endeavour Energy requests that a condition requiring the Applicant to submit documentary evidence from Endeavour Energy confirming satisfactory arrangements have been made for the connection of electricity and the design requirements for the substation, prior to the commencement of works. • Any substation imposed on the site is to be assessed by a Level 3 Accredited Service provider (ASP) ensuring that the location and design complies with Endeavour Energy’s standards for suitability of access, safety clearances, fire ratings, flooding etc. • Access to the existing electrical infrastructure adjacent to, and on, the site is to be maintained at all times. • The Applicant is to obtain advice from Dial before you Dig 1100 in accordance with the requirements of Electricity Supply Act 1995 (NSW) and associated regulations. 	<p>The Department has recommended a condition of consent requiring the Applicant to comply with all Endeavour Energy requirements.</p>
<p>Development Contributions</p>	<ul style="list-style-type: none"> • One public submission on behalf of a community forum, commented that it supported the proposed development, however funds should be made available via contributions or a VPA for footpaths and cycleways serving primarily the University campus. • The Applicant has requested a full exemption from Council’s Section 94A Development Contributions Plan 2017 (CP), which applies a 1% levy for development with a capital investment value greater than \$200,000. • The CP allows for partial or full exemptions from this levy. UOW are seeking an exemption under clause 15(m)(i), which states that <i>“full exemption may be allowed for facilities that are directly required by the main function of the educational facility, such as – classrooms, lecture theatre, training facility, administrative office, research facility”</i>. • UOW has sought an exemption for the following reasons: <ul style="list-style-type: none"> ○ it is a not-for-profit organisation ○ it is an education facility and a nominated charity ○ the proposal is a direct requirement for the university, and provides classrooms, specialist teaching facilities, admin offices and research facilities • The Department notes no contribution has been requested by Council. 	<p>The Department considers no conditions or amendments are necessary.</p>

	<ul style="list-style-type: none"> • Further, the University currently has before Council development application DA-2017/376, seeking development consent for expansion of the P5 carpark proposed car park, riparian works and demountable buildings at the main campus. As part of that development application, the University have offered to enter into a Voluntary Planning Agreement (VPA) with Council for the carrying out of the work described in the VPA, in lieu of any monetary contribution that it may have otherwise been required to pay to Council under the CP for the next 10 years. Works include road and footpath upgrades and the upgrade of Kooloobong Oval. The VPA has been exhibited and is currently being finalised. • The submission from the Community Forum has been taken into consideration, however, the Applicant's request for exemption from contributions meets the exemption clause in Council's CP. • Noting that the UOW is currently finalising a VPA to pay for local infrastructure upgrades, the Department is satisfied that contributions are not required for the proposed development. This is also consistent with the position taken in the assessment and approval of the MLS Building. 	
Bushfire	<ul style="list-style-type: none"> • The proposed development is within close proximity to a bushfire buffer zone as the Illawarra escarpment is to the west of the site. • RFS raised no objections to the proposal, subject to compliance with the recommendations of the bush fire report prepared as part of the EIS. • The Bushfire Protection Assessment Report (Bushfire Report) submitted with the proposal has made the following recommendations: <ul style="list-style-type: none"> ○ Asset Protection Zones are to be provided and maintained ○ the Western Building is to be constructed as specified in the Bushfire protection assessment report ○ reticulated water supply is to be provided in accordance with AS 2419.1 'Fire hydrant installations – System design installation and commissioning' (standards Australia 2005) ○ any gas or electrical services installed as part of the development are to comply with Section 6 of the Bushfire Report ○ additional internal roads to comply with Table 2 of the Bushfire Report. • The Department is satisfied the proposal appropriately meets bushfire protection measures, subject to conditions. 	The Department recommends a condition of consent requiring the findings of the Applicant's Bushfire Report be implemented in full.
Biodiversity	<ul style="list-style-type: none"> • The proposed development is within close proximity to land identified as Natural resources sensitivity – biodiversity to the south west of the development site. • The application was referred to OEHL who provided no comments in relation to the potential impacts on the sensitive land. • Review of the Flora and Fauna Report submitted with the EIS identified that the development proposal will meet the requirements and objectives of clause 7.2 of WLEP by ensuring the following: <ul style="list-style-type: none"> ○ the proposal will ensure the protection of native flora and fauna ○ protection of habitats ○ encouraging the recovery of threatened species, communities and their habitats 	The Department recommends a condition of consent requiring the recommended mitigation measures of the Flora and Fauna Report be implemented in full.

	<ul style="list-style-type: none"> • A 7-part Test Assessment of Significance undertaken demonstrated that the proposal would not have a detrimental impact on any threatened species, ecological communities or populations. • An Impact Assessment under the EPBC Act Significant Impact Guidelines undertaken demonstrated that the proposal would not have an impact on any threatened and migratory species. • The Flora and Fauna Report concludes that the proposal may progress without further impact assessment or offsets as there would be no significant impact. • Recommended mitigation measures will ensure the ongoing habitats of potential threatened flora and fauna that may inhabit the locality are not impacted by the proposal. • The Department is satisfied that the proposal would not have an unacceptable adverse impact on existing biodiversity in the locality. 	
Heritage	<ul style="list-style-type: none"> • The proposed Western Building is near local and state heritage items, including the Wollongong Botanic gardens. • The proposed Western building will not have any significant impact on the views of the Botanic gardens. • The Department is satisfied that the location and proposed height of the Western Building will not have any adverse impacts on the surrounding local and state heritage items. • The university campus has been disturbed in the past and no know Aboriginal relics or sites have been found on or near the development site. As such no Aboriginal cultural heritage issues have been raised by relevant agencies. 	The Department considers no conditions or amendments are necessary.

5.4. Public Interest

The proposal is considered to be in the public interest as it will provide for new research and education facilities for the UOW, increase opportunities for students and researchers in the region and enhance the role of the Campus within the Wollongong education precinct as part of the 'University City'.

The proposal would also address State priorities to improve educational results by delivering new educational facilities and to encourage a modal shift from private vehicle use to public transport in association with other campus redevelopments.

6. CONCLUSION

The Department has reviewed the EIS, RtS and assessed the merits of the proposal, taking into consideration advice from the public authorities, including Council. Issues raised in public submissions have been considered and all environmental issues associated with the proposal have been thoroughly addressed.

The proposal will provide for a new, four storey academic building that will accommodate schools studying the Arts and Social Sciences at the University of Wollongong. The proposal would also result in the direct investment of approximately \$54 million and generate 140 construction and 54 operational jobs.

The Department considers the proposal is consistent with the objects of the EP&A Act (including ecologically sustainable development), State priorities, Illawarra-Shoalhaven Regional Plan 2015 and UOW Master Plan. The Department is satisfied the subject site is suitable for the proposed Western Building and will provide an uplift in design quality of the surrounding built form.

The Department concludes the impacts of the development are acceptable and can be appropriately mitigated through the implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved subject to conditions.

7. RECOMMENDATION

In accordance with section 4.38 of the *Environmental Planning and Assessment Act 1979*, it is recommended that the Executive Director, Priority Projects Assessments, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application
- **agrees** with the key reasons for approval listed in the notice of decision
- **grants consent** to the application in respect of the construction of the Western Building at the University of Wollongong (SSD 8596)
- **signs** the attached development consent and recommended conditions of consent (**Appendix D**).

Recommended by:



David Gibson
Team Leader
Social Infrastructure Assessments

Decision

The recommendation is Adopted by:



24/8/18

David Gainsford
Executive Director
Priority Projects Assessments
as delegate of the Minister for Planning

I agree that the key reasons set out in the Notice of Decision (which will be made public) accurately reflects the key reasons for my decision

APPENDIX A RELEVANT SUPPORTING INFORMATION

The following supporting documents and supporting information to this assessment report can be found on the Department of Planning and Environment's website as follows.

1. Environmental Assessment
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596
2. Submissions
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596
3. Government Agency and Organisation Submissions
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596
4. Public Submissions
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596
5. Applicant's Response to Submissions
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596
6. Applicant's Supplementary Response to Submissions
http://www.majorprojects.planning.nsw.gov.au/?action=view_job&job_id=8596

APPENDIX B CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENT(S) AND DCP(S)

ENVIRONMENTAL PLANNING INSTRUMENTS (EPIS)

To satisfy the requirements of section 4.15(a)(i) of the EP&A Act, this report includes references to the provisions of the EPIS that govern the carrying out of the project and have been taken into consideration in the Department's environmental assessment.

Controls considered as part of the assessment of the proposal are:

- State Environmental Planning Policy (State & Regional Development) 2011 (SRD SEPP)
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)
- State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP)
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- Wollongong Local Environmental Plan 2009 (WLEP)
- Draft Remediation of Land State Environmental Planning Policy (Draft Remediation SEPP)
- Draft State Environmental Planning Policy (Environment).

COMPLIANCE WITH CONTROLS

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

The aims of the SRD SEPP are to identify SSD and State significant infrastructure and confer the necessary functions to joint regional planning panels to determine development applications.

The proposal is for SSD in accordance with section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it is development for the purpose of an educational establishment with a CIV in excess of \$30 million, under clause 15 (educational establishments) of Schedule 1 of the SRD SEPP.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

The aim of the ISEPP is to facilitate the effective state-wide delivery of infrastructure by providing greater flexibility in the location of infrastructure and service facilities, allowing the development of surplus government land, identifying relevant environmental assessment categories for development and relevant matters to be considered and providing for consultation with relevant public authorities.

The development constitutes traffic generating development in accordance with clause 104 of the ISEPP and therefore must be referred to RMS for comment. The application was referred to RMS and TfNSW, their comments are summarised in **Section 4** of this report.

The proposal is considered to be consistent with the ISEPP given the consultation and consideration of the comments raised has been undertaken in the Department's assessment in **Section 5** of this report.

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (Education SEPP)

The Education SEPP commenced on 1 September 2017 and aims to simplify and standardise the approval process for child care centres, schools, TAFEs and universities while minimising impacts on surrounding areas and improving the quality of the facilities. The Education SEPP includes planning rules for where these developments can be built, which development standards can apply and constructions requirements.

The Education SEPP allows the ability to expand existing provisions applying to tertiary institutions to make it easier to improve and expand existing campuses and provide the services that students need, such as educational premises, cafes, bookshops and recreational facilities.

The Department is satisfied that the proposed development of the Western Building is consistent with the intent of the SEPP playing an integral role is the delivery of the UOW Wollongong Campus Master Plan.

The proposal is consistent with the provisions of the Education SEPP.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

SEPP 55 aims to provide a state-wide approach to the remediation of contaminated land. In particular, SEPP 55 aims to promote the remediation of contaminated land to reduce the risk of harm to human health and the environment by specifying under what circumstances consent is required, specifying certain considerations for consent to carry out remediation work and requiring that remediation works undertaken meet certain standards.

The EIS was accompanied by a Contamination Assessment report that assessed the likelihood of site contamination based on historical land uses and investigates areas of environmental concern (AEC) in providing a conclusion on the site's suitability for the proposal. Investigations undertaken identified three AECs due to the presence of existing structures and weathering of hazardous building materials, potential fill materials and the potential presence of a septic tank. Sampling was undertaken at 11 locations across the development site in accordance with the EPA's Sampling Density Guidelines recommendations.

A response prepared on behalf of the Applicant as part of the RtS (in response to comments received from the EPA during the exhibition) details that no samples were collected from Borehole No.5 due to a hard object preventing the auger from progressing further. Notwithstanding, observations were used within the preparation of the Applicant's Contamination Assessment report. The EPA advised it had no further comments following its review of the RtS response.

Laboratory analysis of the samples taken from the site AECs recorded contaminants of potential concern (COPC) below the adopted soil assessment criteria. However, the report notes that site works were unable to establish the presence of the septic tank due to the location of existing services.

The report concludes that the site has a low likelihood of being contaminated that would pose an unacceptable risk to human health or the environment. Given the unknown presence of the septic tank, it was recommended that an unexpected finds protocol be developed.

The proposal does not include any significant bulk earthworks or excavation that would result the potential exposure of any contamination sources. The Department is satisfied that there is unlikely to be contaminants given the investigations undertaken within the vicinity of the site found no elevated levels of contaminants.

The Department is satisfied that, in accordance with clause 7 of the SEPP, the investigations undertaken of the subject site demonstrate it is suitable for the continued use for the intended purpose. The Department has recommended a condition requiring an unexpected finds protocol be developed prior to the commencement of works and implemented throughout the construction process.

Wollongong Local Environmental Plan 2009 (WLEP)

WLEP aims to encourage the development of housing, employment, infrastructure and community services to meet the needs of the existing and future residents of the Wollongong LGA. WLEP

also aims to conserve and protect natural resources and foster economic, environmental and social well-being.

No maximum heights or gross floor area provisions apply to the subject building under the provision of the WLEP. Clauses of the WLEP that are applicable to the subject development are described in Table 1.

Table 11: Consideration of WLEP

Relevant Clause	Department Comment / Assessment	Complies?
Clause 5.10 heritage Conservation	The proposal is consistent with the objectives of this clause. The western portion of the UOW Wollongong Campus is mapped as heritage conservation. The proposed location of the Western building does not contain any mapped heritage items, does not form part of a conservation area and will not have any adverse impacts on heritage items within the vicinity.	Yes
Clause 7.1 Public utility infrastructure	The proposal is consistent with the objectives of this clause. It is noted that public utility infrastructure is available in this location and capacity is to be further confirmed with the relevant authorities.	Yes
Clause 7.2 Natural resource sensitivity - biodiversity	The proposal is consistent with the objectives of this clause. As part of the assessment the Department is satisfied that the proposed Western Building has been designed to avoid adverse environmental impacts.	Yes
Clause 7.3 Flooding	The Department is satisfied that the proposed Western Building complies with the requirements for flooding under the WLEP. As per the flooding report prepared by Cardno the habitable floor levels of the development will be above the flood planning level. Flood behaviour changes are minimal, flow distributions are slightly affected, however there is minimal environmental affectation associated with the development. Impacts associated with modelled flood behaviour would be further minimised through the proposed Robsons Road culvert upgrades proposed by the Applicant in the RtS. It is noted that Council raised no objections to the addition of these proposed works.	Yes
Clause 7.4 Riparian lands	The proposal is consistent with the objectives of this clause. The proposal minimises the potential for impact on aquatic and riparian vegetation and habitat. The Flora and Fauna report prepared by Narla Environmental concludes that if there is any potential for the riparian corridor to be impacted, a Vegetation Management Plan (VMP) is to be prepared.	Yes
Clause 7.5 Acid sulfate soils	The proposal is consistent with the objective of this clause to ensure that development does not disturb, expose or drain ASS and cause environmental damage. Class 5 ASS are present across the UOW Wollongong Campus; however, the proposed Western Building is not affected by class 5 ASS.	Yes
Clause 7.6 Earthworks	No significant bulk excavation or basement excavation works are proposed as part of this application. The proposal is consistent with the objective of this clause ensuring that any earthworks will not have a detrimental impact on environmental functions and processes, neighbouring uses or heritage items and features surrounding land.	Yes

Development Control Plans

In accordance with Clause 11 of the SRD SEPP, Development Control Plans do not apply to state significant development. Notwithstanding, consideration of relevant controls in Wollongong DCP 2009 has been given in **Table 2**.

Table 2: Consideration of the relevant provisions in Wollongong DCP 2009

DCP Provisions	Department Comment / Assessment
Chapter A2: Ecologically Sustainable Development	The Department has considered ESD in Section 3.6 of the report.
Chapter D1: Character Statements <ul style="list-style-type: none"> 3.28 Keiraville 	The development is consistent with the desired future character of the Keiraville as the development is generally consistent with the leafy suburban character.
Chapter E1: Access for People with a Disability	The proposal is supported by an accessibility review that concludes that the development is capable of complying with relevant legislation and Australian Standards. The Department has included recommended conditions requiring compliance with the relevant standards.
Chapter E2: Crime Prevention through Environmental Design	The proposal provides opportunities for passive surveillance with the 24-hour operations of university. The development has also been designed to minimise locations for entrapment and ensure sight lines are not obstructed. These measures will adequately address crime issues.
Chapter E3: Car Parking, Access, Servicing/Loading Facilities and Traffic Management	The Department has considered transport impacts in Section 5.2.1 of the report.
Chapter E6: Landscaping	The Department has considered landscaping and public domain in Section 5.2.4 of the report.
Chapter E7: Waste Management	Appropriate waste and recycling facilities would be located within the service areas of the development. The Department has included recommended conditions to ensure these areas are appropriately designed and constructed.
Chapter E12: Geotechnical Assessment	The proposal is supported by a geotechnical assessment that concludes the development is geotechnically feasible and provides recommendations to ensure that the design and construction of the development address the slope constraints of the site. The Department has included recommended conditions requiring a structural engineer confirm that the design and construction of the development meets relevant construction standards.
Chapter E13: Floodplain Management	The Department has considered flood risk in Section 5.3 of the report.
Chapter E14: Stormwater Management	The Department has considered stormwater disposal in Section 5.3 of the report.
Chapter E15: Water Sensitive Urban Design	The Department is satisfied that a range of water sensitive urban design measures have been incorporated into the development.
Chapter E16: Bush Fire Management	The Department has considered bush fire risk in Section 5.3 of the report.
Chapter E17: Preservation and Management of Trees and Vegetation	The Department has considered tree loss in Section 5.2.4 of the report.
Chapter E19: Earthworks (Land Reshaping Works)	The Department is satisfied with the scale of earthworks proposed.
Chapter E20: Contaminated Land Management	The Department has considered contamination in Section 5.3 of the report.

DCP Provisions	Department Comment / Assessment
Chapter E21: Demolition and Asbestos Management	The Department has considered flood risk in Section 5.3 of the report.
Chapter E22: Soil Erosion and Sediment Control	The Department's has included recommended conditions to ensure erosion and sediment control is addressed during construction.
Chapter E23: Riparian Corridor Management	The development site is located adjacent to an existing riparian corridor. A Flora and Fauna Assessment is included with the EIS that confirms the proposal will have no adverse impact on surrounding native vegetation and habitat.

Draft Remediation of Land State Environmental Planning Policy (Draft Remediation SEPP)

An Explanation of Intended Effect for the Draft SEPP and Draft Contaminated Land Planning Guidelines were on exhibition until 13 April 2018.

The Explanation of Intended Effect sets out the key changes proposed to SEPP 55 which largely relate to:

- categorisation of remediation works based on scale, risk and complexity
- more clearly specifying remediation works requiring development consent
- introducing certification and operational requirements for remediation works that can be undertaken without development consent
- requiring environmental management plans relating to post remediation management of sites or ongoing operation, maintenance and management of on-site remediation measures (such as containment cell) to be provided to Council.

The key operational framework of SEPP 55 is to be maintained and new provisions are unlikely to significantly affect the subject applications. As such, the Department is satisfied that the proposal would be consistent with the intent of the Draft SEPP.

Draft State Environmental Planning Policy (Environment)

The draft State Environmental Planning Policy (Environment) (Environment SEPP) is a consolidated SEPP which proposes to simplify the planning rules for a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. Once adopted, the draft SEPP will replace seven existing SEPPs. The proposed SEPP will provide a consistent level of environmental protection to that which is currently delivered under the existing SEPPs. Where existing provisions are outdated, no longer relevant or duplicated by other parts of the planning system, they will be repealed.

Given that the proposal is consistent with the provisions of the existing SEPPs that are applicable, it is concluded that the proposed development will generally be consistent with the provisions of the draft Environment SEPP.

APPENDIX C GLOSSARY

Ecologically Sustainable Development can be achieved through the implementation of:

- (a) *the precautionary principle - namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*
 - (i) *careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*
 - (ii) *an assessment of the risk-weighted consequences of various options,*
- (b) *inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,*
- (c) *conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,*
- (d) *improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as:*
 - (i) *polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,*
 - (ii) *the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,*
 - (iii) *environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems (Cl.7(4) Schedule 2 of the Regulation).*

Objects of the Act

The objects of this Act are as follows:

- (a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
- (b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
- (c) *to promote the orderly and economic use and development of land,*
- (d) *to promote the delivery and maintenance of affordable housing,*
- (e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
- (f) *to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),*
- (g) *to promote good design and amenity of the built environment,*
- (h) *to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,*
- (i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,*
- (j) *to provide increased opportunity for community participation in environmental planning and assessment.*

4.15 Evaluation

(1) **Matters for consideration—general**

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:

(a) the provisions of:

- (i) any environmental planning instrument, and*
- (ii) 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 (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and*
- (iii) any development control plan, and*
- (iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and*
- (iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and*
- (v) any coastal zone management plan (within the meaning of the Coastal Protection Act 1979),*

that apply to the land to which the development application relates,

- (b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,*
- (c) the suitability of the site for the development,*
- (d) any submissions made in accordance with this Act or the regulations,*
- (e) the public interest.*

Note. See section 75P(2)(a) for circumstances in which determination of development application to be generally consistent with approved concept plan for a project under Part 3A.

Note. The consent authority is not required to take into consideration the likely impact of the development on biodiversity values if:

- (a) the development is to be carried out on biodiversity certified land (within the meaning of Part 7AA of the Threatened Species Conservation Act 1995), or*
 - (b) a biobanking statement has been issued in respect of the development under Part 7A of the Threatened Species Conservation Act 1995.*
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APPENDIX D RECOMMENDED CONDITIONS OF CONSENT
