

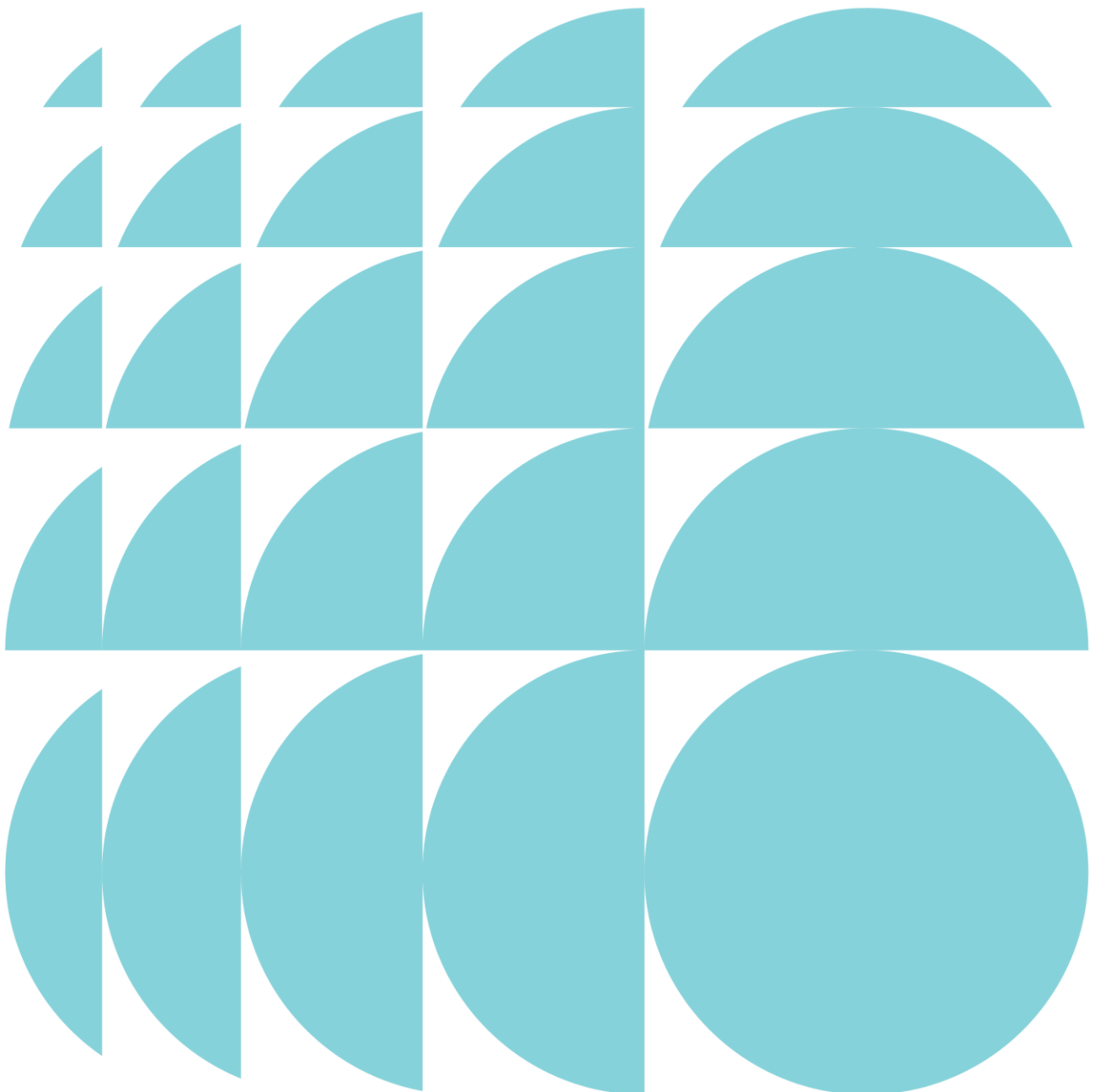
ETHOS URBAN

Environmental Impact Statement

16 Honeysuckle Drive, Newcastle
Honeysuckle City Campus Concept Plan

Submitted to Department of Planning &
Environment
On behalf of The University of Newcastle

06 June 2018 | 218153



CONTACT

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This document has been prepared by:

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6/6/18

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Statement of Validity

Development Application Details

Applicant name	University of Newcastle
Applicant address	University Drive Callaghan, NSW 2308
Land to be developed	16 Honeysuckle Drive, Newcastle
Proposed development	Concept Plan for the expansion of the UON city campus as described in Section 3.0 of this Environmental Impact Statement

Prepared by

Name	Chris Forrester
Qualifications	BPLAN, UNSW
Address	173 Sussex Street, Sydney
In respect of	State Significant Development - Development Application

Certification

I certify that I have prepared the content of this EIS and to the best of my knowledge:

it is in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000;

all available information that is relevant to the environmental assessment of the development to which the statement relates and the information contained in the statement is neither false nor misleading.

Signature



Name Chris Forrester

Date 6/06/2018

Executive Summary

Purpose of this Report

This submission to the Department of Planning and Environment (the Department) comprises an Environmental Impact Statement (EIS) for a Development Application under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It relates to a proposed Concept Plan for the proposed development and staged expansion of the University of Newcastle's (UON) Honeysuckle City Campus.

The land (excluding the former heavy rail line) is identified as a State Significant Site in Schedule 2 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP). Development with a capital investment value of more than \$10 million is State Significant Development (SSD) for the purposes of the EP&A Act. As the proposed development will have a capital investment value of \$383 million it is SSD. It is noted that the proposal also triggers SSD as is it for the purposes of an educational establishment that has a capital investment value when fully developed in excess of \$30 million.

A request for the issue of Secretary's Environmental Assessment Requirements (SEARs) was sought on 10 April 2018. Accordingly, the SEARs were issued on 8 May 2018. This submission is in accordance with the Department's guidelines for SSD applications lodged under Part 4 of the EP&A Act, and addresses the issues raised in the SEARs.

Overview of the Project

The Development Application (DA) seeks Concept Plan approval for the staged establishment and subsequent expansion of the University of Newcastle (UON) Honeysuckle City Campus, including the establishment of building envelopes for seven new buildings across the site. The application also seeks approval for Design Guidelines establishing the framework for future development at the site and a Design Excellence Strategy.

The Site

The proposed Honeysuckle City Campus is located within the Newcastle City Council LGA at 16 Honeysuckle Drive, Newcastle. The proposed Honeysuckle City Campus is located on a series of sites situated between Honeysuckle Drive and Civic Lane, to be acquired from the Hunter Development Corporation.

Planning Context

Section 6.0 of the EIS considers all applicable legislation in detail. The proposal is consistent with the requirements of all relevant SEPPs. The site is zoned B4 Mixed Use and the proposal is permissible with consent and meets the objectives of the subject zone.

Environmental Impacts and Mitigation Measures

This EIS provides an assessment of the environmental impacts of the project in accordance with the SEARs and sets out the undertakings made by UON to manage and minimise potential impacts arising from the development. The application is supported by two Clause 4.6 variation requests which demonstrate that the proposed variations to the height and FSR development standards will not result in any significant environmental impacts and are justifiable on planning grounds.

Conclusion and Justification

The EIS addresses the SEARs and includes adequate information to assess the environmental impacts of the proposed development and ensure any impacts can be appropriately managed.

The proposal provides for a significant expansion of UON's city offerings and will significantly contribute to the revitalisation of the Newcastle CBD and promote further investment and jobs growth in the city. The project encourages greater innovation and partnership with the private sector and the design of the campus is welcoming to the public and will significantly enhance the activation of the surrounding public domain.

The architecture and urban design of the campus will achieve design excellence and positively contribute to the revitalisation of the broader Honeysuckle area and the Newcastle City Centre. A Design Excellence Strategy has

been prepared to articulate how design excellence will be achieved throughout the various stages of the development and has been given in principle support by the State Design Review Panel.

The potential impacts of the development are reasonable and are able to be managed through the subsequent detailed design applications and the mitigation measures identified in the accompanying documents and Section 7.0 of this EIS. Given the above merits of the proposal, the proposed development warrants approval by the Minister for Planning and Environment.

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of an application for State Significant Development (SSD).

The site (excluding the former heavy rail line) is identified on the Honeysuckle State Significant Development Sites Map and the development has a capital investment value in excess of \$10 million and therefore it is SSD for the purposes of the EP&A Act (the Act). It is noted that the proposal also triggers SSD as it is for the purposes of an educational establishment that has a capital investment value in excess of \$30 million.

The report has been prepared by Ethos Urban on behalf of The University of Newcastle (UON) and is based on the Architectural Plans provided by Cox Architecture (see **Appendix A**) and other supporting technical information appended to the report (see Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), and the SEARs for the preparation of the EIS, which are included at **Appendix B**. This EIS should be read in conjunction with the supporting information and plans appended to and accompanying this report.

1.1 Overview of Proposed Development

This SSD application seeks Concept Plan approval for the following:

- establishment of building envelopes for seven (7) new buildings across the site, to be used for academic and ancillary uses, and student accommodation;
- potential maximum Gross Floor Area (GFA) of 62,573m², representing a FSR of 3.07:1;
- maximum building heights ranging between 23m and 34.9m (between 4-9 storeys);
- Design Excellence Strategy outlining the process through which design excellence will be achieved; and
- Design Guidelines to inform the future design of the built form, including:
 - pedestrian and vehicle access arrangements;
 - parking and loading;
 - preliminary landscape design; and
 - proposed staging of the delivery of the campus.

1.2 Background to the Development

The Honeysuckle City Campus is located on a series of lots situated between Honeysuckle Drive and Civic Lane, to be acquired by the UON from the Hunter Development Corporation (HDC). The development of the Honeysuckle City Campus in the heart of Newcastle forms part of the UON's *NeW Futures Strategic Plan (2016-2025)*, which promotes a long-term vision of delivering new modes of education focused around a compact campus setting in a central location. This is consistent with UON's broader strategy of attracting the best students and academic staff and promoting their national and global presence in education, research and innovation.

The proposed development is the next step in achieving this vision and will build on the UON's historical presence (University House, Northumberland House, and Conservatorium of Music) and the more recent development of NeW Space in the CBD.

1.3 Objectives of the Development

The objectives of the Honeysuckle City Campus project are to:

- provide a world class educational precinct that attracts the best students and academic staff and promotes UON's national and global presence in education, research and innovation;
- create building envelopes capable of achieving design excellence with minimal impact on adjoining land uses;

- contribute to the revitalisation and activation of the Newcastle CBD, promoting investment in the CBD and the growth of complementary land uses;
- establish an urban campus that is integrated with the surrounding context and provides a high level of pedestrian amenity and permeability at ground level with high quality public domain and landscaping treatments; and
- developing a sustainable university campus, leveraging off the new light rail and existing Park and Ride service to implement a reduced parking strategy for the site.

1.4 Analysis of Alternatives

1.4.1 Strategic need for the Proposal

As previously discussed in Section 1.2, the UON has a strategic vision, centred around the development of excellent facilities in attractive locations with strong civic and lifestyle amenity, delivering new modes of education from innovative and collaborative facilities, and attracting outstanding staff and students.

The proposed development is an important part of achieving this vision and will enable the UON to create an integrated urban education environment that builds on the amenity offered by a CBD location, the proximity to world class beaches and a rapidly developing waterfront.

The proposal will also contribute to the revitalisation of the Newcastle CBD, promoting further investment, attracting new skilled jobs, encouraging greater innovation and partnership with the private sector, and supporting local businesses through the activation of the public domain. It will also facilitate the growth of complementary land uses in the surrounding area, such as research institutions and student housing.

1.4.2 Alternative Options

The UON has undertaken a detailed analysis of a number of options available in responding to the need to provide a world class educational precinct, including consideration of the site constraints, impacts on neighbouring properties and the planning requirements.

Six alternatives are available to UON in responding to the identified need for the development of additional university facilities.

Option 1 – Do nothing

Under the 'do nothing' scenario the site would remain undeveloped and under-utilised, being used primarily as an at-grade car park. A 'do nothing' scenario would fail to meet UON's identified need for a new campus, capable of delivering new modes of education and attracting outstanding staff and students. It would also represent a gross underutilisation of the site and a wasted opportunity to contribute to the revitalisation of Newcastle.

Option 2 – Develop the site for alternative uses

Option 2 involves the consideration of alternative uses for the site. However, the development of a campus in the city centre is the most appropriate use of the site because it supports the University's strategic vision of developing world class facilities and expanding its global presence in education, research and innovation. The location of the site promotes sustainable transport options by leveraging off the light rail infrastructure and implementing a reduced parking strategy. It also supports the intent of the Draft Greater Newcastle Metropolitan Plan which seeks to make Newcastle one of Australia's major university cities.

Option 3 – Develop a new campus elsewhere

Under Option 3 the University could look to develop a new campus on another site. However, the site is the last remaining development parcel within the Honeysuckle Precinct of a size suitable for the University's needs. It also offers an unmatched opportunity to capitalise on the existing amenity of the area and proximity to other University assets such as NeW Space.

Option 4 – Redevelopment/Expansion of existing Callaghan or Ourimbah Campuses

Another option available to the University is the redevelopment or expansion of the existing Callaghan or Ourimbah Campuses. However, the redevelopment or expansion of these campuses would be inconsistent with the University's strategy because it would not enhance the presence of the University in the CBD or align with the desire to create a contemporary city-based campus, expanding on their existing offerings.

Option 5 – Alternative Design

The proposed development has been the subject of a robust design process aimed at creating a scheme which meets the functional educational needs and recognises and responds to the context of the surrounding area.

The detailed design of future buildings within the site will be subject to separate development applications, at which time the design and form of these buildings will be further considered to ensure that each design reflects high quality architecture which responds to the site's opportunities and constraints. The envelopes and Concept Plan have been developed to achieve the design excellence requirements and facilitate future development which will achieve design excellence.

Option 6 – The proposal

Option 6 involves following through with the proposed development detailed in this SSD application (as described in Sections 3.0 and 4.0). This option aligns with the objectives of UON, creating a world-class campus in the heart of Newcastle. The proposal will address the strategic need identified above and will therefore provide a high-quality development at each relevant stage.

1.5 Secretary's Requirements

In accordance with Section 4.39 of the EP&A Act, the Secretary of the Department of Planning and Environment issued the requirements for the preparation of the EIS on 8 May 2018. A copy of the SEARs is included at **Appendix B**.

Table 1 provides a detailed summary of the individual matters listed in the SEARs and identifies where each of these requirements has been addressed in this report and the accompanying technical studies.

Table 1 Secretary's Requirements

Requirement	Location in Environmental Assessment
General	
The Environmental Impact Statement (EIS) must address the <i>Environmental Planning and Assessment Act 1979</i> and meet the minimum form and content requirements in clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000. Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. Where relevant, the assessment of the key issues below, and any other significant issues identified in the risk assessment, must include: - adequate baseline data; - consideration of potential cumulative impacts due to other development in the vicinity; and - measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.	Environmental Impact Statement
The EIS must be accompanied by a report from a qualified quantity surveyor providing: - a detailed calculation of the capital investment value (CIV) of the proposal (as defined in clause 3 of the Regulation), including details of all assumptions and components from which the CIV calculation is derived; - an estimate of the jobs that will be created by the future development during the construction and operational phases of the development; - certification that the information provided is accurate at the date of preparation.	Submitted under separate cover

Requirement	Location in Environmental Assessment	
Key Issues	Report / EIS	Technical Study
The EIS must address the following matters: 1. Statutory Context Address the statutory provisions applying to the development contained in all relevant environmental planning instruments, including: • State Environmental Planning Policy (State & Regional Development) 2011 • State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 • State Environmental Planning Policy (Affordable Rental Housing) 2009 • State Environmental Planning Policy No. 55 – Remediation of Land • State Environmental Planning Policy (Urban Renewal) 2010 • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy (Coastal Management) 2018 • State Environmental Planning Policy (Vegetation in Non-Rural Areas) 2017 • Newcastle Local Environmental Plan 2012. <i>Permissibility</i> Detail the nature and extent of any prohibitions that apply to the development. <i>Development Standards</i> Identify compliance with the development standards applying to the site. Justify any development standards not being met.	Section 5.1	-
2. Policies and Guidelines Address the relevant planning provisions, goals and strategic planning objectives in the following: • NSW State Priorities; • Hunter Regional Plan 2036; • Newcastle Urban Renewal Strategy 2014; • Future Transport Strategy 2056 and supporting plans; • Draft Greater Newcastle Future Transport Plan; • Better Placed – an integrated design policy for the built environment of NSW 2017; • NSW Planning Guidelines for Walking and Cycling; • Newcastle Section 94A Development Contributions Plan 2009; • Port of Newcastle Port Development Plan (PDP) 2015; • Draft Greater Newcastle Metropolitan Plan; and • Draft Newcastle 2030 Community Strategy Plan (if exhibited).	Section 5.1	-
3. Built Form and Urban Design The EIS shall: • address the height, density, bulk and scale, setbacks of the proposal in relation to surrounding development, topography, streetscape and any public open spaces; • demonstrate how the orientation, height, setbacks, bulk, scale, massing, activation and pedestrian connectivity (including through site linkages) of the proposal will fit within the context of the site and the existing and future desired character of the surrounding area; • provide an indicative building design showing a possible built form within the proposed building envelopes; and • include a gross floor area (GFA)/floor space ratio schedule and calculations for each building envelope, including car parking.	Section 5.3	Appendix A
4. Design Excellence The EIS shall: • describe the design process leading to the Concept Plan design; and • provide a design excellence strategy in consultation with, and to the satisfaction of, the Government Architect NSW for the future detail design and subsequent delivery of the development that: – demonstrates how design excellence will be achieved; and – includes a design review process, including opportunities for review by the NSW State Design Review Panel and outline of how feedback will be documented and addressed.	Section 5.2	Appendix G

Requirement	Location in Environmental Assessment	
5. Public Domain and Landscaping The EIS shall: - include preliminary landscaping and public domain details; - identify any proposed open space, public domain and linkages within the site and other public domain spaces; - outline the interface between the site and the public domain; and - consider any drainage associated with the proposal, including stormwater and drainage infrastructure.	Section 5.3	Appendix A
6. Ecologically Sustainable Development The EIS shall: - detail how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) will be incorporated in the design of the development; and - demonstrate how the proposed development responds to sustainable building principles and best practice, and improves environmental performance through energy efficient design, technology and renewable energy.	Section 5.8	Appendix K
7. Transport and Accessibility - forecast total daily and peak hour trips likely to be generated by the proposed development including vehicle, public transport, pedestrian and bicycle trips, together with cumulative impacts of existing, proposed and approved developments in the area and any transport / traffic upgrade; - address the impacts of the proposed development on the operation of existing and future transport networks, including the public transport capacity and its ability to accommodate the forecast number of trips to and from the development including surrounding footpaths and cycleways; - provide an assessment of the existing and future performance of key intersections providing access to the site, supported by appropriate modelling and analysis to the satisfaction of RMS and TfNSW. Traffic modelling is to be undertaken using, but not limited to, SIDRA network modelling for current and future years; - outline measures to mitigate impacts of the proposed development on the operation of existing and future traffic, public transport, pedestrian and bicycle networks, including any required upgrades; - detail proposed car and bicycle parking rates for students, staff and visitors, including consideration of the availability of public transport and the requirements of the relevant parking codes; - include details of likely servicing requirements; - the proposed access arrangements, including car and bus pick-up/drop-off facilities, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks; and - detail measures to be implemented to encourage users of the development to make sustainable travel choices, including walking, cycling, public transport and car sharing, such as provision of adequate bicycle parking and end of trip facilities.	Section 5.9	Appendices L and M
8. Mine Subsidence The EIS shall provide a Geotechnical Investigation and Report (prepared by a recognised professional in consultation with the Mine Subsidence Board) which addresses potential subsidence risks, stabilisation works required/ undertaken and confirms suitability of the site for the proposal.	Section 5.11	Appendix H
9. Flooding The EIS is to include an assessment of any potential flood risk on site in accordance with any relevant provisions of the NSW Floodplain Development Manual (2005), Waterfront and Cottage Creek Flood Management Plan 1999, Newcastle City-wide Floodplain Risk Management Study and Plan 2012, and the Honeysuckle Redevelopment Area Flood Study 2018, including: - an assessment of existing flood behaviour and impact of sea level rise, climate change, and ecosystem migration; - an assessment of potential flood impacts on the proposed development and measures to mitigate any potential flooding; - assessment of potential impacts of the proposed development on flood behaviour at the site and impacts on adjacent land, and measures to mitigate any potential flooding; - any emergency management measures and evacuation; - consistency with any floodplain risk management plans; - compatibility with the flood hazard of the land; and - an assessment of whether the proposal will significantly adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.	Section 5.12	Appendix E

Requirement	Location in Environmental Assessment	
10. Heritage - identify if there are any listed or potential heritage items and conservation areas within or in the vicinity of the site. If any listed or potential heritage items and areas are likely to be affected, a Heritage Impact Statement (HIS) must be prepared in accordance with the Heritage Council of NSW guidelines. The HIS must identify the level of significance of any listed or potential heritage items and conservation areas, the likely impact due to the proposal and measures to avoid adverse impacts to heritage resources such as significant buildings, structures, natural heritage areas, gardens, landscapes, trees, plantings, streetscapes and views; - identify if there are any areas with historical archaeological potential within the proposed site that could be impacted by the proposal; and - identify and describe any Aboriginal cultural heritage values that exist across the site.	Section 5.13	Appendix N
11. Contamination The EIS shall: - assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55; and - where relevant, undertake a hazardous materials survey of all existing structures and infrastructure prior to any demolition or site preparation works.	Section 5.10	Appendix H
12. Utilities In consultation with relevant agencies, ascertain existing capacity and licensing requirements for ongoing water supply and any additional electricity works and or boosted water supply (including need for hydraulic plans) are adequately addressed for the provision of utilities including staging of infrastructure.	Section 3.11	Appendix E
13. Public Benefit and Contributions Provide confirmation of the public benefit offer to be derived from the proposal and address Council's Section 94A Contribution Plan and/or details of any Voluntary Planning Agreement.	Section 5.14	-
Plans and Documents	Report	Technical Study
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following: - architectural drawings showing envelopes, heights and GFA (to a usable scale at A3) - a report tabling a summary record of Design Review Panel recommendations and how the proposal responds to those recommendations - concept public domain and landscape drawings (to a usable scale at A3) - site survey plan, showing existing levels, location and height of existing and adjacent structures/buildings - site and context analysis - shadow diagrams - ESD statement - pre-submission consultation statement - heritage impact assessment - archaeological impact assessment - access impact statement - traffic and parking assessment - visual and view impact analysis and photomontages - preliminary stormwater Concept Plan - flood risk assessment - preliminary construction management strategy, addressing traffic, noise, vibration, waste and cumulative impacts of the future development - geotechnical and structural report - services and infrastructure report - contamination assessment.	Environmental Impact Statement	Refer to table of contents

Requirement	Location in Environmental Assessment	
Consultation		
The EA must describe the pre-submission consultation and community engagement process, including engagement activities undertaken, how participation outcomes have been achieved, how issues raised have been addressed and amendments to the design of the development (if applicable). Where amendments have not been made to address an issue, an explanation should be provided. During the preparation of the EA, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups and affected landowners. You must consult with: • City of Newcastle Council; • The Government Architect NSW; • Transport for NSW; and • Roads and Maritime Services.	Section 0	Appendix F
Further consultation after 2 years		
If you do not lodge a development application and EIS for the development within 2 years of the issue date of these SEARs, you must consult further with the Secretary in relation to the preparation of the EIS.	-	-

2.0 Site Analysis

2.1 Site Location and Context

The proposed Honeysuckle City Campus is located within the Newcastle City Council LGA at 16 Honeysuckle Drive, Newcastle. The proposed Honeysuckle City Campus is located on a series of sites situated between Honeysuckle Drive and Civic Lane, to be acquired from the Hunter Development Corporation.

Located within the wider Honeysuckle Precinct, the site is strategically positioned in the geographic heart of the Newcastle CBD. This area is experiencing a process of revitalisation, with a number of major commercial and residential developments having been completed recently.

The site is also located in close proximity to the future Newcastle Light Rail, which is to be operational by 2019. With stops at Honeysuckle and Civic, the Newcastle Light Rail will improve transport connectivity to the site and the broader area. The Hunter River is located north of the site, while the Civic Precinct of Newcastle and the iconic NeW Space building sit just to the southeast. The site's locational context is shown at **Figure 1**.

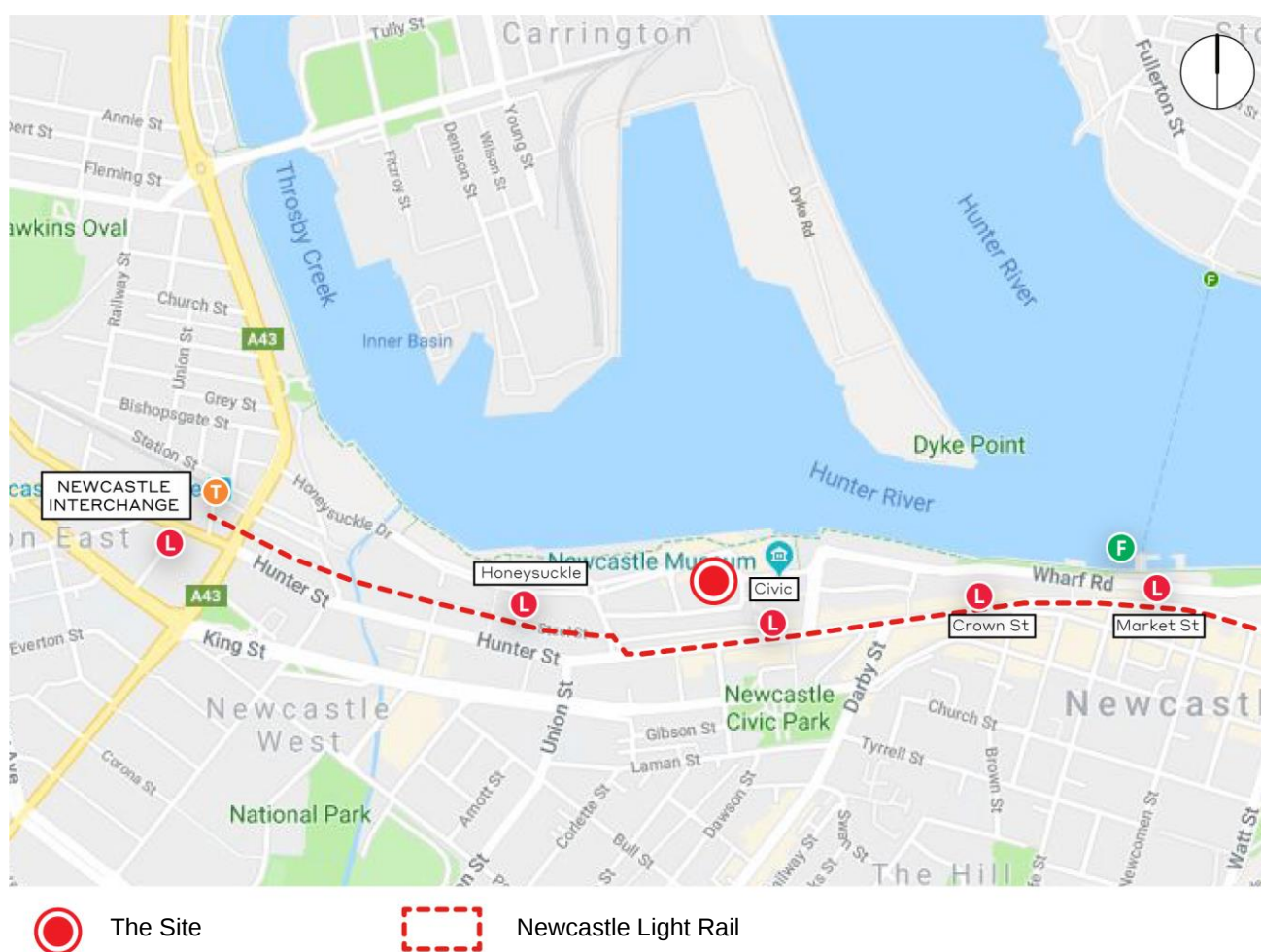


Figure 1 Location plan

Source: Ethos Urban

2.2 Site Description

The total precinct comprises three parcels of land within Honeysuckle identified as Sites 1, 2 and 3 in **Figure 2**. The site has an overall area of 20,412m² and comprises an undeveloped parcel of land currently used for the temporary storage of construction materials at Site 1 and an at-grade car park and former heavy rail line across Sites 2 and 3. The site area does not include Wright Lane which runs between Sites 1, 2 and 3 or Civic Lane which borders the southern boundary of the site.

The site is legally described as:

- Lots 1, 2 and 3 in DP 1163346 (Site 1);
- Lot 21 in DP 1165985 (part Sites 2 and 3); and
- Part Lot 2 in DP 1226145 (part Sites 2 and 3).

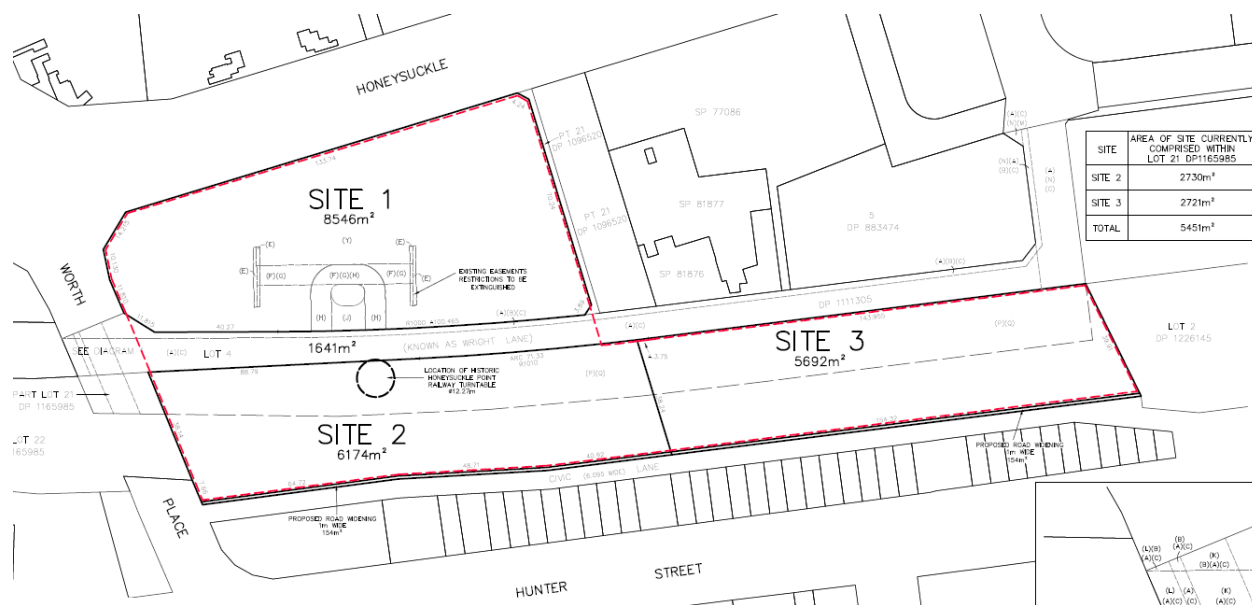


Figure 2 The site

Source: Monteath and Powys

Topography

Topographically, the site is situated in a flat, low-lying area of reclaimed tidal flats associated with the lower Hunter River estuary. The area has been filled using dredged sand with the former Lee Wharf Harbour less than 100m to the north.

The three sites are generally flat, with the current RL of the site ranging between 2.0m and 2.6m with grades of approximately 2%. A survey detailing the contours and slope of the site has been prepared by Monteath and Powys and is included at **Appendix C**.

Vegetation

The site does not contain any significant vegetation. This was recognised by the Department of Planning and Environment with the granting of a waiver from the preparation of a Biodiversity Development Assessment Report (BDAR) on 8 May 2018 (refer to **Appendix D**).

Heritage

Although the site does not contain any local or state listed heritage items, Sites 2 and 3 are situated within a general heritage conservation area under the *Newcastle Local Environmental Plan (LEP) 2012*. Despite not being listed in the LEP as a heritage item, the remnants of a locomotive turntable dating from between 1856-1895 and associated with the former Honeysuckle Station are located on the site and are considered to be of archaeological significance.

The site is in proximity to a number of listed state and local heritage items, including the Civic Railway Workshops Group (Local Heritage Item #1479 and SHR #00956), Civic Railway Station Group, and Civic Theatre (Local Heritage Item #1418 and SHR #01883).

The study area is also potentially of Aboriginal cultural heritage significance (tangible and intangible Aboriginal cultural heritage values), as it is considered that there is a moderate potential for Aboriginal objects (shell material, stone objects) to be located in a highly disturbed context within Site 1.

Flooding

The flood study prepared by Northrop Consulting Engineers (see **Appendix E**) shows that the site is affected by ocean and local catchment flooding. The site has various flood classifications, however the most critical classification for the subject area within the development footprint is flood fringe. This is described in the City of Newcastle DCP as *“the remaining areas of floodplain not included in flood storage areas and floodways”*. Worth Place is noted as a major floodway with depths up to 1m possible.

Soils and Contamination

A review of contamination and geotechnical data for Sites 1, 2 and 3 was undertaken by Coffey and identified a number of contaminants of potential concern.

On Site 1, the main contaminants of potential concern include petroleum hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), heavy metals, CBC, and asbestos. Previous studies also indicate that up to 2m of fill contains heavy metals, medium fraction petroleum hydrocarbons and PAHs in concentrations above the suitable levels for residential land use. The study also found that based on the location of Site 1, there was a high probability of Acid Sulfate Soils (ASS) being present on the site as it is located within an area categorised as Class 3 for the probability of occurrence of ASS/Potential ASS.

For Site 2 and Site 3, a Phase 1 and 2 Environmental Assessment was undertaken by CH2M Hill, encompassing the Wright Lane Car Park. The Assessment found the presence of a number of contaminants in the soil. It also found the presence of arsenic, copper, and zinc contaminants in the groundwater.

Access and Parking

Vehicle access to each of the three sites is provided by Wright Lane. Sites 2 and 3 can also be accessed from Worth Place. Access to Site 1, which is currently being used for the storage of material associated with construction of the Newcastle Light Rail, is currently restricted by an enclosing wire fence (refer to **Figure 3**).

On-street parking is provided along Honeysuckle Drive and Settlement Lane. Off-street parking is available to the public in the Civic car park which forms part of this site. To the east of the site there is a parking station located on Merewether Street whilst to the west of the site there is a carpark off Honeysuckle Drive. The Civic West carpark, at the western end of Gibson Street, south of the site provides capacity for over 470 vehicles.



Figure 3 View of existing development on Sites 1, 2 and 3

2.3 Surrounding Development

The Honeysuckle Precinct has undergone steady development over the last two decades, with the Hunter Development Corporation (previously the Honeysuckle Development Corporation) overseeing a number of major projects in close proximity to the site. Land to the north of the site is predominantly residential, with mixed use and commercial to the south. The surrounding land uses of the site are depicted at **Figure 4**.



Figure 4 Surrounding land uses

Source: Cox Architecture

To the North

To the north of the site, beyond Honeysuckle Drive, is a series of predominantly high-density shop top housing developments of up to seven storeys, with some commercial and tourism uses between. The Honeysuckle Hotel is located beyond this, on the edge of the Hunter River.

To the East

Immediately to the east of the site, across Settlement Lane, are three mixed-use buildings ranging between eight and nine storeys. These buildings front on to both Settlement Lane and Honeysuckle Drive and incorporate retail and commercial tenancies on the ground floor.

Further to the east, along Workshop Way, are a number of heritage listed former railway workshops which have been restored and adapted. They currently accommodate a combination of commercial and tourism uses, most notably the Newcastle Museum.

To the South

Civic Lane forms the southern alignment of the site, running in an east-west direction parallel to Hunter Street and intersecting with Worth Place to the west. Commercial and residential development of between two and seven storeys is located beyond Civic Lane, fronting exclusively on to Hunter Street. Civic Lane provides service access for the tenancies along Hunter Street, where the construction of the future Newcastle Light Rail is underway. The Newcastle Light Rail is scheduled for completion in Q1 2019.

The area immediately beyond Hunter Street is predominately characterised by a mix of commercial, residential, and educational development, including the University of Newcastle's recently completed NeW Space building.

To the West

To the west the site is bordered by Worth Place, which runs in a north-south direction. As part of the construction of the Newcastle Light Rail, Worth Place was connected to Hunter Street, providing a valuable pedestrian and vehicular link to Honeysuckle Drive. Multistorey residential and commercial development of up to nine storeys is located beyond Worth Place, fronting along Honeysuckle Drive.



View of residential and commercial development to the west along Honeysuckle Drive (left image); View of mixed use development to the east (right image).

Figure 5 View of existing developments to the west and east of the site



View of the undeveloped site and residential development to the north along Honeysuckle Drive (left image); View of mixed use development bordering Civic Lane and Hunter Street to the south (right image).

Figure 6 View of existing developments to the north and south of the site

2.4 Site Preparation

To enable future development (whether for the University or not) site stabilisation works are required to be undertaken to mitigate the potential risk of mine subsidence. This is a result of the history of mining activity within the locality. A separate development application for site stabilisation works will be submitted to Newcastle City Council.

3.0 Description of the Development

This section of the report provides a detailed description of the proposed development. Architectural drawings are included at **Appendix A**.

This SSD application seeks approval for the following Concept Plan approval for:

- establishment of building envelopes for seven (7) new buildings across the site, to be used for academic and ancillary uses, and student accommodation;
- potential maximum Gross Floor Area (GFA) of 62,573m², representing a FSR of 3.07:1;
- maximum building heights ranging between approximately 23m and 34.9m (between 4-9 storeys);
- Design Excellence Strategy outlining the process through which design excellence will be achieved; and
- Design Guidelines to inform the future design of the built form, including:
 - pedestrian and vehicle access arrangements;
 - parking and loading;
 - preliminary landscape design; and
 - proposed staging of the delivery of the campus.

An artist impression of the indicative development of the site is shown at **Figure 7**.



Figure 7 Artist Impression, aerial view

Source: Cox Architecture

3.1 Numerical Overview

The key numeric development information is summarised in **Table 2**.

Table 2 Key Development Information

Component	Proposal
Site Area	20,412m ²
GFA	62,573m ²
FSR	3.07:1
Maximum Height	34.9m (top of lift overrun)
Car spaces	12

3.2 Development/Urban Design Principles

The planning and design principles adopted for the proposed development of the site are outlined in the Cox Masterplan (**Appendix A**) and in Figure 8. The principles include:

Engaged

- *create a strong, visible UON presence in the Newcastle CBD that is welcoming to students, staff and visitors and contributes to a sense of identity and place.*
- *contribute to the vibrancy of the Newcastle CBD during the day and night by designing the urban environment to have safe and open connections, with ground level activation.*
- *create an urban campus that is integrated with the CBD and enables boundaries between university and city to be dissolved through physical and visual links in the built form and public domain.*

Unique

- *create a campus environment that is a vibrant and attractive destination offering a variety of spaces and experiences for UON students, staff and visitors, but that also welcomes the wider Newcastle community.*
- *respond to the unique history of the site by reinterpreting the locomotive, industrial and indigenous heritage of the place through opportunities in the design of public domain, landscape and building spaces.*
- *design the public domain as an urban campus heart that provides enjoyable places for people to meet and gather, and that maximises solar access and connections to its location between the waterfront and city.*

Sustainable

- *create a world class, sustainable facility that demonstrates a commitment to social, environmental and economic leadership.*
- *reinforce UON's relationship with the wider Newcastle community and meet social responsibilities by dissolving the boundaries between university and city.*
- *meet the challenges of a low-carbon future through energy efficient and environmentally sustainable design and operation of the Campus.*
- *design and develop accessible and engaging work/study environments that attract leading academic talent.*

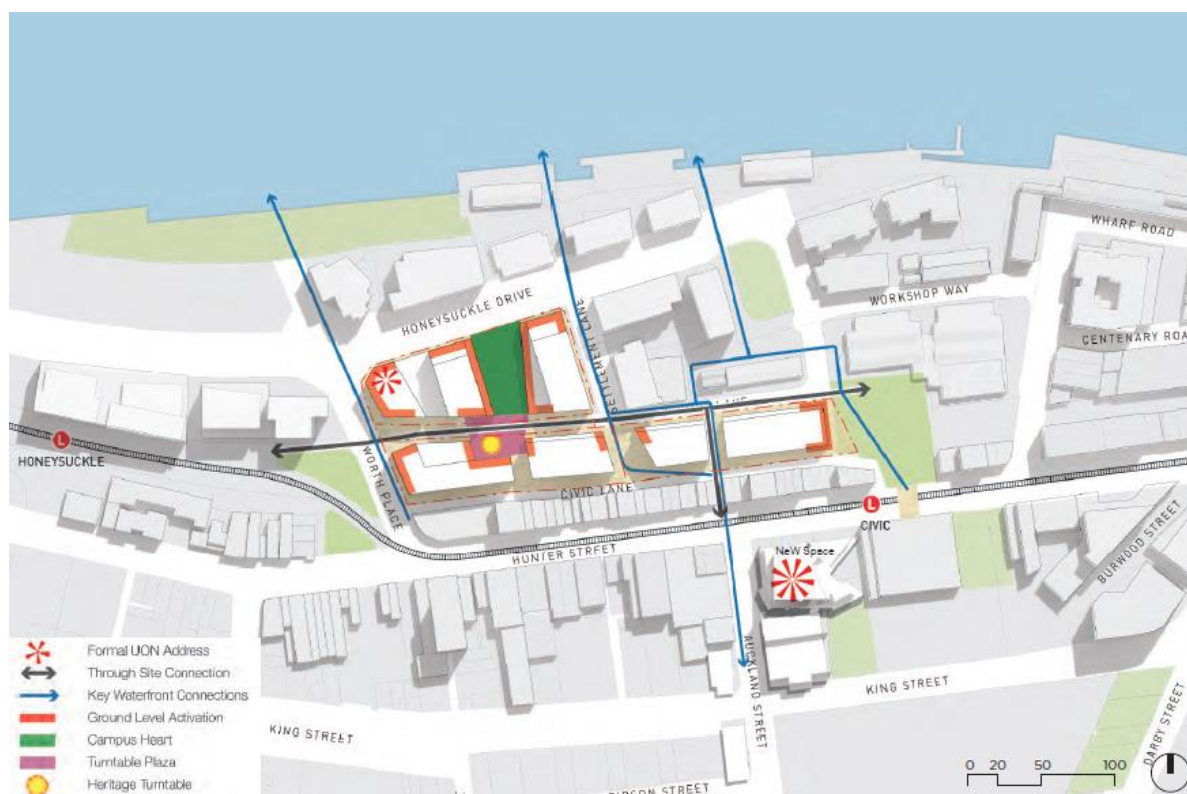


Figure 8 Masterplan principles

Source: Cox Architecture

3.3 Land Use and Floor Space

The Concept Plan seeks approval for seven (7) building envelopes with an overall GFA of 62,573m² and a maximum FSR of 3.07:1. **Table 3** provides a summary of the proposed predominant land use and GFA for each stage of the development. It is noted that the buildings include a mix of uses at ground floor, including commercial/retail, to ensure that the public domain is active and vibrant. The development lots are shown in **Figure 9**.

Table 3 Proposed Land Use and GFA

Lot	Predominant Land Use	Site	Total GFA (m ²)
Lot A1	Academic	Site 1	4,608m ²
Lot A2	Academic	Site 1	10,299m ²
Lot B	Student Accommodation/Commercial	Site 2	11,828m ²
Lot C	Academic	Site 2	12,217m ²
Lot D	Academic	Site 2	9,415m ²
Lot E	Academic	Site 3	7,158m ²
Lot F	Academic	Site 3	7,049m ²
			62,573m²

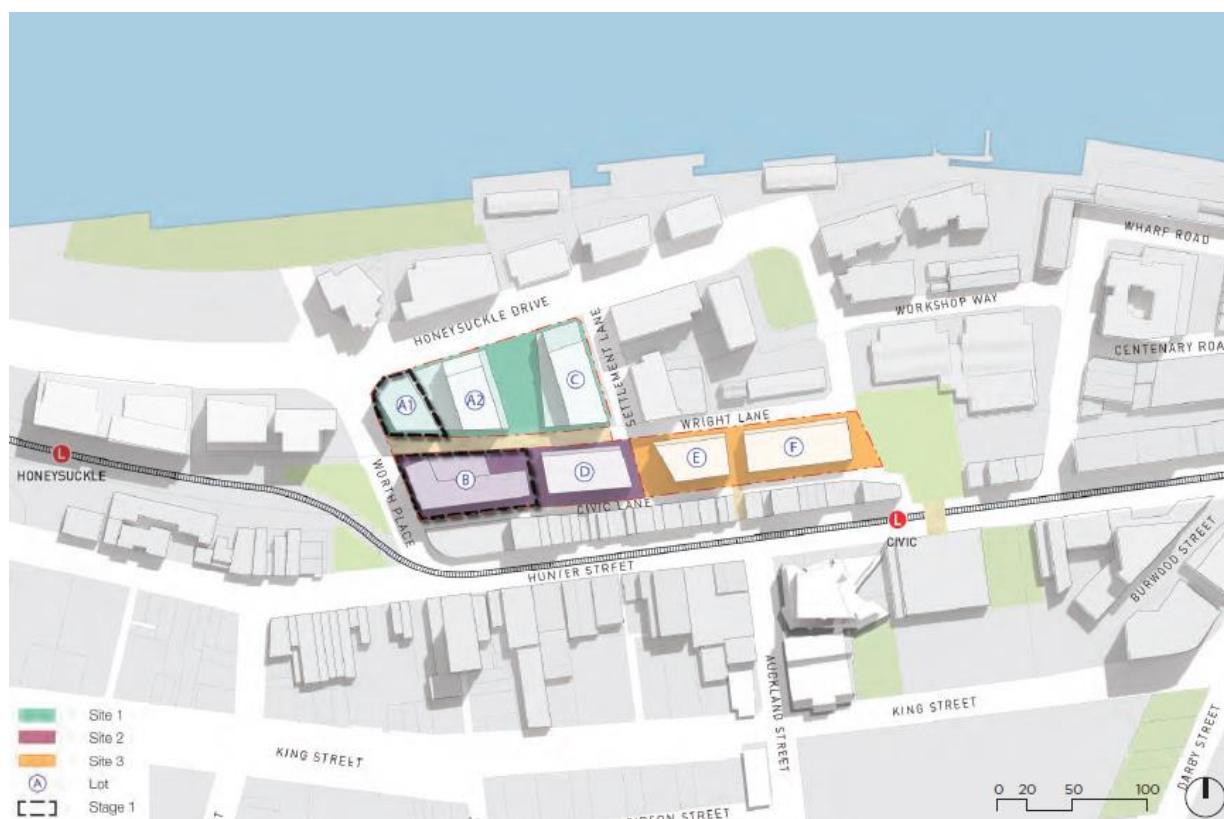


Figure 9 Development lots diagram

Source: Cox Architecture

3.4 Building Height

The proposed maximum height is RL 36.6 which represents the lift overrun of Building B. An overview of the maximum building envelope heights in storeys for the seven buildings is outlined in **Table 4** below and shown at **Figure 10**.

Table 4 Proposed Building Heights

Lot	Storeys
Lot A1	6
Lot A2	8
Lot B	9
Lot C	7
Lot D	7
Lot E	7
Lot F	4

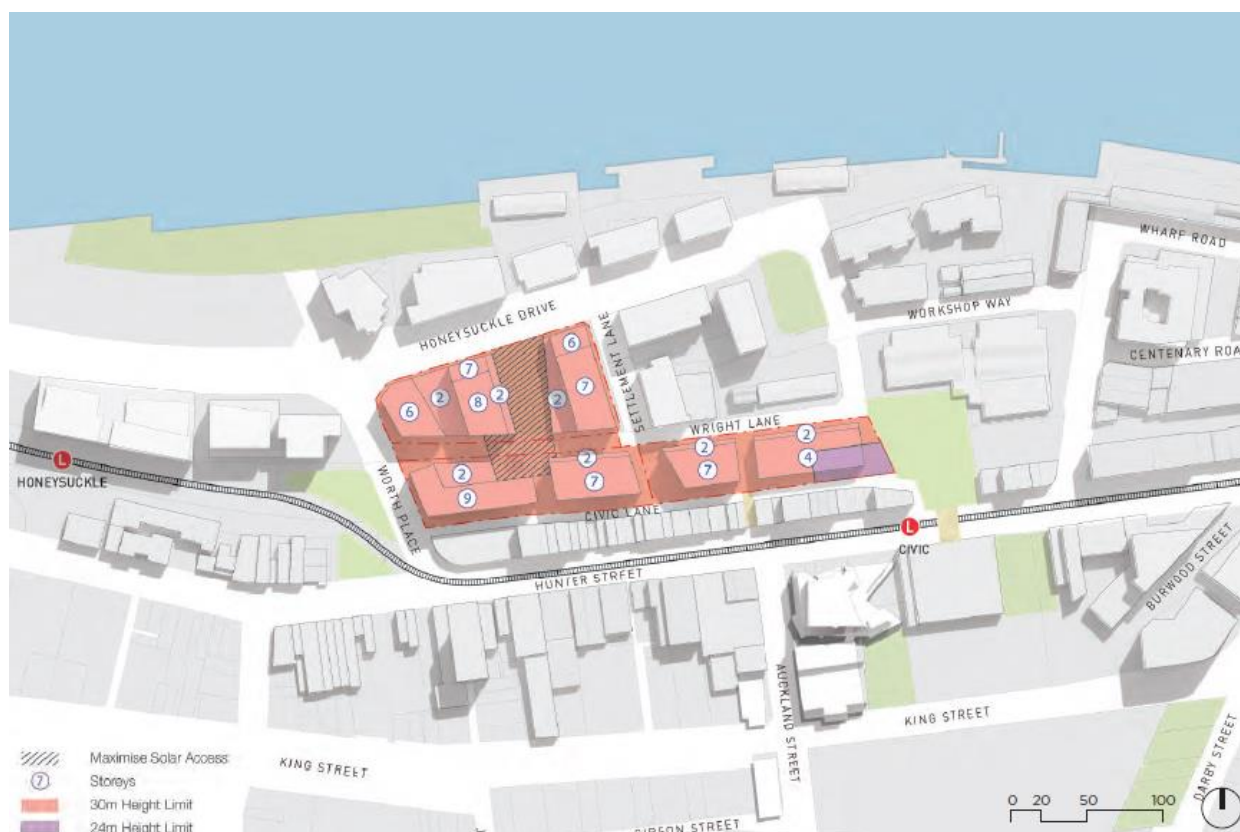


Figure 10 Building height diagram

Source: Cox Architecture

3.5 Building Setbacks

Table 5 outlines the proposed minimum setbacks of the building envelopes to the respective boundaries (see also Figure 11).

Table 5 Proposed Building Setbacks

Frontage	Setback
Honeysuckle Drive	0m 6m setback above 7 storeys for Lot A2 6m setback above 6 storeys for Lot C
Worth Place	3m
Wright Lane	3m 6m setback above two storey podium for Lot E 6m setback above two storey podium for Lot F
Civic Lane	6m
Settlement Lane	3m

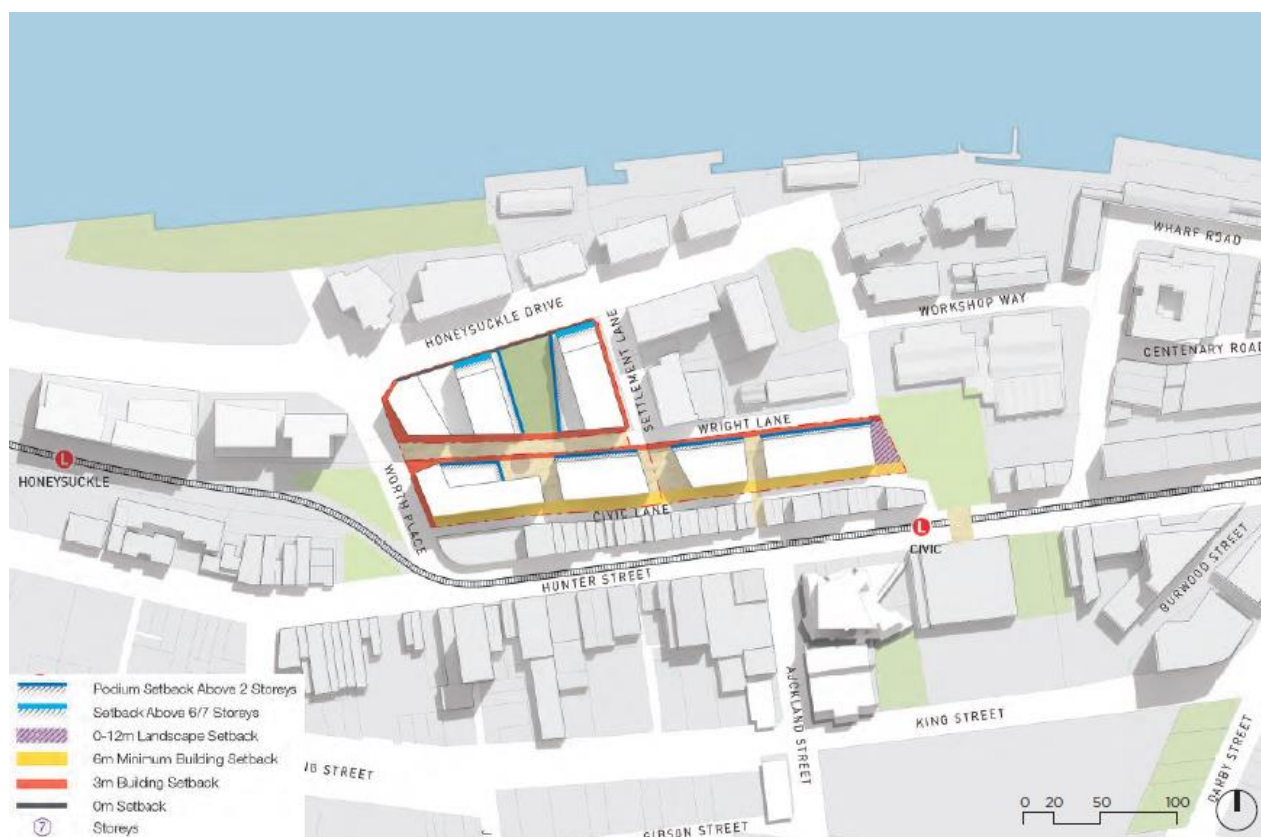


Figure 11 Setbacks diagram

Source: Cox Architecture

3.6 Built Form

The proposed building envelopes have been designed to be consistent with the massing of the surrounding area, whilst delivering a world class educational environment for students and staff. The building layout provide a highly permeable precinct, with convenient through site links from Wright Lane to Civic Link, and from Hunter Street to the waterfront. The envelopes have also been designed to maximise solar access to the central open space, which links the main building elements.

The proposed building envelopes are also respectful of the surrounding context, with top floor setbacks along Honeysuckle Drive incorporated to reduce the visual bulk and scale of the development as viewed from the street. The design also includes reduced building height adjacent to the future Civic Link open space, which will enable ground level outdoor activation and a landscaped setback.

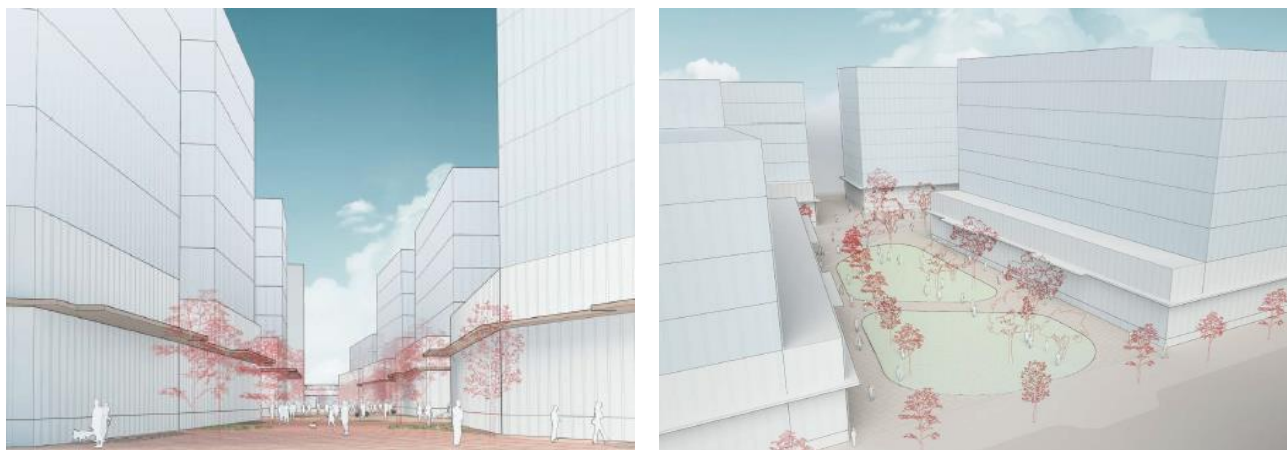


Figure 12 View down Wright Lane (left image); Aerial view of the campus heart (right image)

Source: Cox Architecture



Figure 13 Artist impression: elevated view of Campus Heart from Honeysuckle Drive

Source: Cox Architecture

3.7 Public Domain and Landscaping

The proposed development will provide a cohesive, activated public domain, that provides a link between the main building elements and enhances both student's and the general public's experience of the site. New links between Civic Lane, Wright Lane and Honeysuckle Drive will create a highly permeable public domain. The proposed development also includes areas of communal open space, including the 'Campus Heart' and the Turntable Plaza, which will both be focal points of the Honeysuckle City Campus. The public domain will be enhanced by sensitive building massing and setbacks, which seek to maximise solar access and provide visual links.

The potential closure of Wright Lane to traffic will enhance the experience of users at the campus as they move between facilities, reinforcing the east-west 'park to park' green. It is noted that UON will enter into a commercial agreement with HDC, such as a Voluntary Planning Agreement (VPA), to embellish Wright Lane. The details of landscaping and public domain within the Honeysuckle City Campus will be established in subsequent applications.

3.8 Pedestrian Access

There are a number of potential pedestrian gateways to the Honeysuckle City Campus, which are detailed in **Figure 14**. However, given the location of key public transport infrastructure and the pattern of development in Newcastle, the primary pedestrian access to the Honeysuckle City Campus will be from the east, west and south. Upon the completion of the Newcastle Light Rail, the site will be located halfway between the Honeysuckle and Civic light rail stops, which will generate significant pedestrian flows. The opening of new links in the block of Hunter Street, between Worth Place and Civic, will further reinforce movement from the south.

Immediately to the south of Site 3 is 468 Hunter Street, a property already owned by UON. While not included in the site area, this Concept Plan considers this site as an important opportunity to create future pedestrian connections between the Honeysuckle City Campus and NeW Space, and further west from Hunter Street to the campus. These links would form part of future, separate application(s) if viable.



Figure 14 Future site access

Source: Cox Architecture

3.9 Vehicular Access and Parking

As noted in Section 3.1 only limited on-site parking spaces will be provided as part of the development, consistent with NeW Space. The development will allow for specialised parking including drop off zones, loading and service areas, accessible parking and bicycle parking. Staff and students that choose to drive will have the option to park in a public parking station in the CBD or utilise the Park and Ride service currently running between campuses.

Vehicular access to the site will be improved by a new link across the rail corridor at Worth Place delivering left-in/left out at Hunter Street with the potential to add a new right turn out of Worth Place into Hunter Street in the future. Civic Lane will remain as an important service access for both the Honeysuckle City Campus and the existing properties along Hunter Street. It is envisioned that Wright Lane will be pedestrianised to create an east-west link through the site.

3.10 Heritage Interpretation Works

As noted in Section 2.2 the site contains the remnants of a locomotive turntable dating from between 1856-1895 and associated with the former Honeysuckle Station. The Concept Plan proposes the retention of the existing Railway Turntable, with the intention of incorporating it into the 'Campus Heart' through the creation of 'Turntable Plaza'. The design of 'Turntable Plaza' will be addressed through detailed project design.

The integration of the turntable into the public domain of the Honeysuckle City Campus would likely be a positive physical impact to the turntable, allowing it to be uncovered and visible (as opposed to beneath ground at present).

3.11 Infrastructure and Services

Northrop Consulting Engineers have prepared a Stormwater and Servicing Assessment which sets out the current infrastructure and services available to the site and the requirements of the proposed development (refer to **Appendix E**). A number of works will be completed as part of an early works application, including:

- extension of an existing watermain on Worth Place to connect to Honeysuckle Drive;
- construction of a gravity sewer main along Wright Lane to service each development stage;
- installation of a kiosk substation;
- installation of conduits and pits for electrical and telecommunications; and
- installation of a 144-core fibre optic cable.

Further investigation into the existing capacity and required infrastructure works, including water, gas, electricity and telecommunications, will also be undertaken for the future applications for the proposed buildings.

3.12 Staging and Future Planning Pathway

Staging

Indicatively, the vision for the Honeysuckle City Campus will be realised in four stages. As shown in **Figure 15**, Building A1 has been identified as the first stage of the development, located in a visually prominent position on the corner of Honeysuckle Drive and Worth Place. Building A1 will accommodate the University's School of Creative Industries (SOCl) and an 'Innovation Hub'. Building B, which is proposed to be developed for student accommodation, would follow Building A1 and it is envisioned that this stage will include the heritage interpretation of the Turntable. Beyond this, Stages 2-4 will be developed for academic and ancillary purposes in accordance with the requirements of UON.

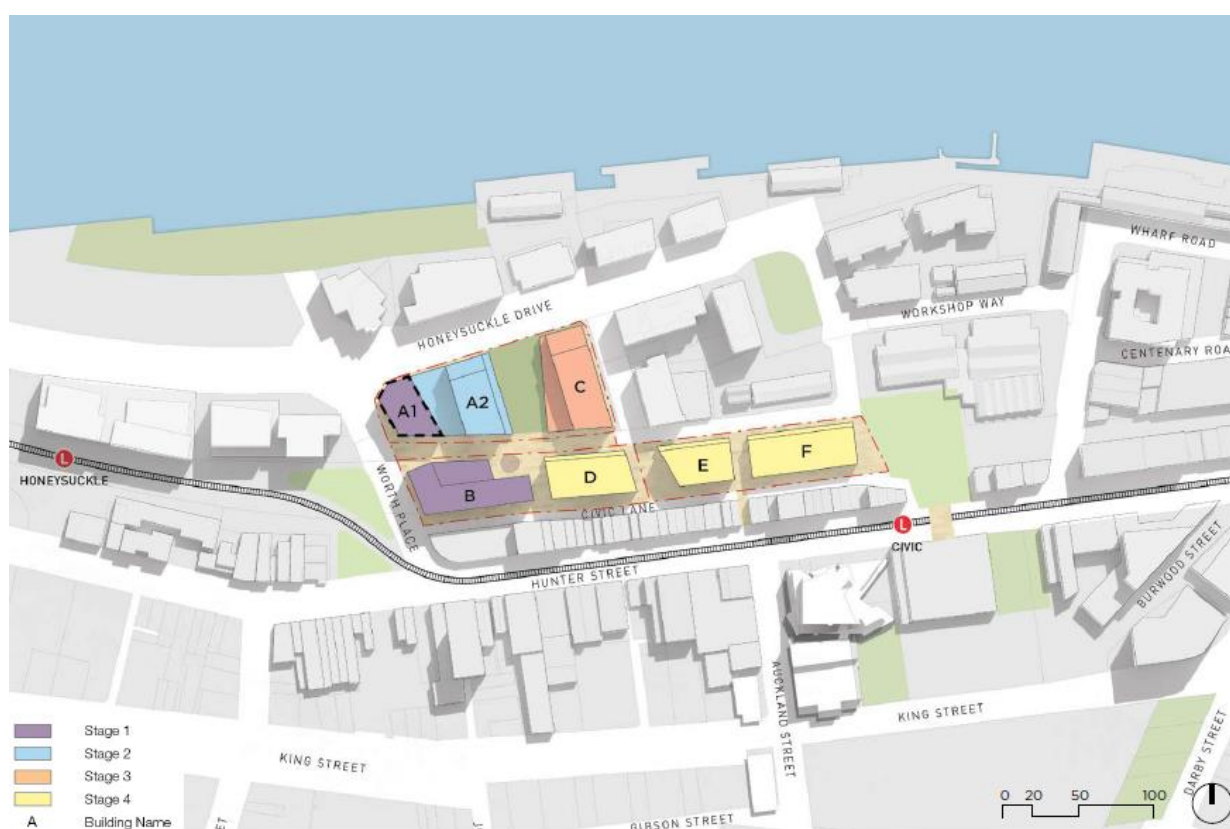


Figure 15 Indicative staging of the Honeysuckle City Campus

Source: Cox Architecture

Interim/Temporary Uses

The timeframe of the proposed staging provides an opportunity for temporary landscaping or uses on sites designated for Stages 2, 3 and 4. Any temporary use would be subject to separate approval.

Planning Pathway

Clause 12 of SEPP (State and Regional Development) 2011 provides that if a Concept Plan is in place that was approved as SSD, then subsequent detailed applications are also SSD even if the application on its own does not meet the relevant trigger. Notwithstanding, Section 4.37 of the EP&A Act effectively provides discretion for the Department to delegate the assessment of subsequent applications back to Council.

The Honeysuckle State Significant Site (SSS) boundary does not currently include the whole of the proposed city campus site, however it is understood that HDC has requested that the boundary be expanded as part of the Department's current review of SEPP (State and Regional Development) 2011. In the event it is not modified, it is requested that the subsequent detailed design applications for the campus be treated as SSD.

Whilst most subsequent detailed design applications will trigger SSD, as they are either located completely within the Honeysuckle SSS boundary and have a CIV of greater than \$10m or involve educational establishments with a CIV of greater than \$30m, the majority of the proposed student accommodation building falls outside of the SSS boundary and therefore may not qualify as SSD in its own right due to its use. As such, it is requested that subsequent detailed applications be assessed by the Department as SSD in accordance with Clause 12 of the SEPP despite the boundary on the SSS map (or proposed future use) to ensure a consistent assessment process in terms of consent authority, SDRP process, and other surrounding development within Honeysuckle.

4.0 Consultation

In accordance with the SEARs issued for this project, consultation was undertaken with relevant public authorities, the community and Council. A summary of the consultation undertaken to-date with Council, the community and relevant agencies is provided below and included in **Appendix F**. Several consultants have undertaken additional consultation with relevant parties during the preparation of their reports.

4.1 Hunter Development Corporation

UON has worked closely with the HDC since the initiation of the land acquisition process. Over the course of the last 18 months UON and HDC have held regular sessions to keep HDC across and receive feedback on the development of the Concept Master Plan. The open communication has promoted collaboration between the two organisations and fostered the development of the Concept Master Plan. The Concept Master Plan reflects this ongoing engagement of the HDC through the size, scale and form of the proposed development being responsive of the existing urban environment and vision for the Honeysuckle Precinct.

4.2 Council Engagement

A meeting was held on 18 May 2018 with staff from Newcastle City Council. There was general support from Council for the expansion of the University's presence within the Newcastle CBD and it was acknowledged that it had the potential to contribute to the continued revitalisation of the area. Key issues discussed with Council included:

- parking;
- servicing;
- traffic;
- contamination; and
- heritage.

These matters have been addressed throughout this assessment.

4.3 State Design Review Panel

A meeting was held with the SDRP on 30 May 2018. The Panel was generally supportive of the proposal, including the north-south orientation of the buildings fronting Honeysuckle Drive, and the provision of a 'Campus Heart' which achieves good solar access throughout the year. The Panel was also supportive of the proposal to pedestrianise Wright Lane, however noted that the development needs to provide uses which will ensure adequate activation of this space. The Panel also requested that additional detail, including precedent images, be added to the Design Guidelines to ensure that the desired fine-grain public domain is achieved. The Panel also reiterated the importance of the public domain to the success of the campus, noting the need to consider the public domain holistically to achieve a cohesive outcome.

The Panel supported the proposed connections through the site, as well as the potential connection through to Hunter Street. In anticipation of additional pedestrians moving between the new light rail and the campus, it was suggested that an additional north-south connection be provided to Hunter Street, at the western end of the campus, and that Council consider facilitating this connection. Whilst not proposed as part of this application, the Concept Proposal has been designed to facilitate these connections in the future.

The Panel did not raise any concerns regarding the proposed increase in height and floor space, providing that the proposed envelopes are appropriate. In this regard, the Panel suggested that an above-podium setback be added along the northern alignment of Lots A1, A2 and C. It is anticipated that this can be accommodated for Lots A2 and C. This will be considered further at Response to Submissions stage.

The Panel also questioned the lack of car parking and whether this would impact on the viability of the campus and whether the public transport system is sufficient to accommodate the proposed student and staff population. While not a design issue directly, the University has made a conscious decision to limit parking on the campus. This is considered appropriate in light of the future light rail connections to the site, and the success of the NeW Space development which does not provide any parking for students.

Finally, the Panel gave in principle support for the proposed Design Excellence Strategy, including the ongoing involvement of Cox Architecture in the review of future developments.

Formal written comments have not been received at the time of preparing this EIS. The Panel's comments will be considered, and incorporated where appropriate, at Response to Submissions stage.

4.4 Community Consultation

Ethos Urban's consultation approach was based on extensive experience designing and delivering strategic communication and consultation processes for a variety of projects. The consultation program was designed to be practical and effective in capturing valuable feedback, mitigating risks, and highlighting key benefits of the project.

Key activities during the consultation process are documented in **Table 6** and a Community Consultation Outcomes Report is included at **Appendix F**. This report summarises the key issues raised by the various stakeholders which have been addressed throughout this EIS and will inform the subsequent applications for the detailed design of the campus.

Table 6 Key activities during the consultation process

Date	Time	Type of consultation	Audience	Numbers
Wednesday 16 May	10am - 11am	Campus information session	Staff and students	3
	4pm - 6pm			13
Thursday 17 May	12pm - 1pm			46
Thursday 17 May	3pm - 5pm	Stakeholder information session	Key agencies, business stakeholders and industry bodies	4
Thursday 17 May	5pm - 7pm	Community information session	Surrounding landowners, businesses and the community	43
Friday 18 May	10:30am - 11:30am	Meeting with Council	Council staff	3
Saturday 19 May	9am – 10am	Community information session	Surrounding landowners, businesses and the community	45

The proposed development will be placed on public exhibition for 30 days in accordance with Clause 83 of the EP&A Regulations. During the public exhibition period Council, State agencies and the public will have an opportunity to make submissions on the project.

5.0 Environmental Assessment

This section of the report assesses and responds to the environmental impacts of the proposed SSDA. It addresses the matters for consideration set out in the SEARs (see Section 1.5). The Mitigation Measures at 7.0 complement the findings of this section.

5.1 Relevant EPIs, Policies and Guidelines

The relevant strategies, environmental planning instruments, policies and guidelines as set out in the SEARs are addressed in **Table 7**.

Table 7 Summary of consistency with relevant Strategies, EPIs, Policies and Guidelines

Instrument/Strategy	Comments
Strategic Plans	
NSW State Priorities	The NSW State Priorities are a series of reforms designed to grow the economy, deliver infrastructure, and improve health, education and other services across NSW. The proposed Concept Plan aligns with the NSW State Priority of encouraging business investment as the Honeysuckle City Campus will attract and create new skilled jobs, encourage innovation and partnership with the private sector, and be a catalyst for other forms of development and economic activity within the city centre. The proposed Concept Plan will also facilitate the delivery of education infrastructure, noting that the NSW State Priorities seek to improve educational results.
Hunter Regional Plan 2036	The Hunter Regional Plan 2036 is a 20-year blueprint for the future of the Hunter and the development of the site will play an important role in meeting its strategic planning objectives. Developing a national Centre of Excellence for Health and Education is one of the four priority objectives of the plan and expanding the University's presence in the city centre is a key component of this. The development is also expected to play a significant role in revitalising the Newcastle City Centre in accordance with Direction 3 of the Plan as it will be a catalyst for further investment in the centre, attracting new skilled jobs and encouraging innovation and partnerships with the private sector. The University's expansion will also create a substantial population base in the centre, including visitors to the university and student accommodation, which will support local business and provide activation of the surrounding public domain.
Newcastle Urban Renewal Strategy 2014 (NURS)	The NURS considers the suitability of the Newcastle City Centre for urban renewal. It outlines a clear strategy underpinned by a range of initiatives, and an implementation plan to support the revitalisation of Newcastle over the next 25 years. The strategy proposes a framework for the city to successfully grow and identifies initiatives to improve the city's economy, access, connections and the quality and attractiveness of the public domain, all of which are catalysts for encouraging development. Key elements of the NURS relative to the development of the Honeysuckle City Campus include: • Supporting employment growth, such as establishing a university presence within the Civic precinct and bringing retail businesses back into the city centre; • Diversification of the economy ensuring resilience into the future by encouraging new industries and sectors such as cultural, sustainable energy generation and distribution, education, training and research, port operations, freight and logistics; • Planning for 10,000 additional jobs to 2036, promoting the city centre as the main location for commercial office tenancies, and providing enough land in the right locations; • Promoting a university presence and educational hub in the city centre to stimulate and drive demand for commercial and retail floor space and create synergies with established businesses and industry sectors where innovation can occur in a unique setting; • Reshaping Hunter Street as the main street and key destination within the city and promoting activity, business opportunities, events and other uses in identified nodes along Hunter Street and in all of the city's key public domain areas; and • Recognising Newcastle's heritage as an asset and core component of placemaking and encouraging innovation.

Instrument/Strategy	Comments
	The development of the Honeysuckle City Campus actively supports the key objectives and principles of the NURS as it will be a catalyst for the continued renewal of the city centre of Newcastle. Expanding the University's presence in the city centre through the creation of an educational and cultural hub will also support employment growth, attracting and creating high skilled jobs in education, training and research. Simultaneously, the creation of a substantial population base in the city centre will also contribute to the economic activation of the surrounding area and the promotion of diverse forms of development. This will in turn provide 'flow-on' economic benefits to surrounding local businesses. In this way, the development of the Honeysuckle City Campus will support the reshaping of Hunter Street as a main street and key destination. Newcastle's heritage will also be enhanced through the development of the Honeysuckle City Campus. This is because the development will integrate and activate key items of heritage importance, namely the remnants of a locomotive turntable dating from between 1856 and 1895. The retention of this heritage item recognises the importance of Newcastle's heritage as an asset and core component of placemaking and innovation, which aligns closely with the objectives of the NURS. In summary, the development of the Honeysuckle City Campus is not only consistent with the strategic vision established by the NURS, but will actively promote the renewal of the Newcastle City Centre.
Future Transport Strategy 2056 (and supporting plans)	The Future Transport Strategy sets out a 40-year framework to guide investment, policy and reform service provision. The Future Transport Strategy focuses on the role of transport in delivering movement and place outcomes that support the desired character of the places and communities. It also emphasises the importance of integrating land use and transport planning in a way that activates public spaces, improves liveability and character, and promotes investment. The development of the Honeysuckle City Campus is consistent with the framework established by the Future Transport Strategy. This is because it will concentrate development in close proximity to public transport infrastructure, ensuring that the campus is connected, accessible and integrated into the surrounding environment. The development also promotes sustainable transport options, by encouraging active travel, car sharing and park and ride opportunities.
Draft Greater Newcastle Future Transport Plan	The draft Greater Newcastle Future Transport Plan considers the Greater Newcastle Area, supporting the overarching Future Transport Strategy 2056. It outlines the vision that will guide future transport planning for the Greater Newcastle area. Specifically, the Plan recognises the transformative impact of the Newcastle Light Rail in improving access and amenity in the Newcastle city centre. The development is consistent with the objectives of the draft Greater Newcastle Future Transport Plan because it will create a substantial population base in the CBD, encouraging patronage of the Newcastle Light Rail.
Better Placed 2017	The design process for the Honeysuckle City Campus has been developed with reference to the NSW Government Architect's integrated design policy Better Placed, that recognises that large-scale urban renewal projects are complex and often involve multiple projects being undertaken across stages. The Concept Proposal establishes the framework for the future detailed design of the Honeysuckle City Campus and includes Design Excellence Guidelines (discussed further in Section 5.2 and included at Appendix A) that will inform the detailed design of each stage.
NSW Planning Guidelines for Walking and Cycling	The proposal supports the objectives of this publication as it provides ample facilities to encourage cycling. The inclusion of a new pedestrian and through site link, permeability of the proposed building layout, and the provision of open space also promotes walking in the locality. The location of the Honeysuckle City Campus development in the Newcastle city centre ensures that alternative modes of travel are encouraged.
Port of Newcastle Development Plan (PDP) 2015	The PDP establishes a strategic direction for the management of the Port of Newcastle and communicates anticipated development opportunities within the Port of Newcastle. The PDP emphasises the need for considering potential conflicts between sensitive land uses and the operation of the Port. It also outlines the need for height restriction for development around the city centre to acknowledge the land-based navigation aids which are important to the safe navigation of vessels in the harbour

Instrument/Strategy	Comments
	While the Honeysuckle City Campus is proposed to be developed on former Port wharves, opposite the Carrington Precinct of the Port, it is not anticipated to conflict with the operation of the Port. The proposed height of the Honeysuckle City Campus, which is consistent with surrounding development, will not undermine the land-based navigation aids used by vessels.
Draft Greater Newcastle Metropolitan Plan 2036	The Draft Greater Newcastle Metropolitan Plan 2036 is the first-ever draft metropolitan plan for the greater Newcastle area and it builds on the strategies outlined in the Hunter Regional Plan 2036. The Draft Plan emphasises the importance of the University's presence in the city centre with Strategy 1.5 promoting the expansion of education and innovation clusters to facilitate the growth of complementary land uses such as research institutions and student housing. The expansion of education and innovation clusters will allow Newcastle is to leverage its proximity to Sydney and establish itself as an academic and innovation hub, attracting new businesses and jobs.
Draft Newcastle 2030 Community Strategic Plan	The draft Newcastle 2030 Community Strategic Plan establishes a vision for a smart, liveable and sustainable global city. The draft Plan emphasises the importance of collaboration and partnership between Council and the UON in achieving this vision. The draft Plan envisages a vibrant, diverse and resilient economy centred around educational excellence and research. The development of the Honeysuckle City Campus is consistent with this vision, as it will create skilled jobs and facilitate the growth of complementary land uses in the surrounding area, such as research institutions and creative businesses. The draft Plan also promotes the development of great public places and neighbourhoods that promote health, happiness and wellbeing. This vision for the creation of great places is underpinned by a number of strategic directions, including: • Public places provide for diverse activity and strengthen social connections; • Culture, heritage and place are valued, shared and celebrated; and • Creating safe and activated places that are used by people day and night. The proposed development aligns with these objective, as it will support the development of great public places. This will be achieved by providing an urban environment that is highly permeable, has good solar access, responds to the unique heritage of the site, includes a green campus heart, and provides ground level activation. It is also noted that the proposed development will significantly contribute to achieving the goal of being a Smart and Innovative City. Expansion of the University of Newcastle in the heart of Newcastle's CBD will create a new education and research node within the CBD. This will foster innovation and excellence in education and research across the city.
Hunter Street Revitalisation Plan	The Hunter Street Revitalisation Plan sets out the City of Newcastle's strategy for revitalising Hunter Street. The strategic framework established four community identified themes: enterprise, integrated transport, people and places and Greenways. Each of these themes contain short term and long-term priorities that make up the theme. The proposed development will assist in achieving the revitalisation of Hunter Street by directly contributing to the themes of enterprise and people and place as it will consolidate education and residential functions within the Civic Precinct.
State Legislation	
EP&A Act	The proposed development is consistent with the following objects of the EP&A Act, in particular: • It promotes the proper management, development and conservation of natural and artificial resources for the purpose of promoting the social and economic welfare of the community; • It promotes and co-ordinates the orderly and economic use and development of land; • It promotes the sustainable management of built and cultural heritage (including Aboriginal heritage); • It promotes good design and amenity of the built environment; • Is designed in accordance with the principles of ecologically sustainable development and integrates economic environmental and social considerations;

Instrument/Strategy	Comments																																		
	- It protects the environment; and - The community has been engaged in the planning process. The proposed development is also consistent with Division 4.7 of the EP&A Act, particularly for the following reasons: - the development has been declared to have state significance; - the development is not prohibited by an environmental planning instrument; and - the development has been evaluated and assessed against the relevant heads of consideration under section 4.15(1).																																		
EP&A Regulations	The EIS has addressed the specification criteria within clause 6 and clause 7 of Schedule 2 of the EP&A Regulation. Similarly, the EIS has addressed the principles of ecologically sustainable development through the precautionary principle (and other considerations), which assesses the threats of any serious or irreversible environmental damage. This is further addressed at Section 8.3. As required by clause 7(1)(d)(v) of Schedule 2, the following additional approvals will be required in order to permit the proposed development to occur. <table> <tr> <th>Act</th><th>Approval Required</th></tr> <tr> <td colspan="2">Legislation that does not apply to State Significant Development</td></tr> <tr> <td>Coastal Protection Act 1979</td><td>N/A</td></tr> <tr> <td>Fisheries Management Act 1994</td><td>N/A</td></tr> <tr> <td>Heritage Act 1977</td><td>N/A (would otherwise apply)</td></tr> <tr> <td>National Parks and Wildlife Act 1974</td><td>N/A (would otherwise apply)</td></tr> <tr> <td>Native Vegetation Act 2003</td><td>N/A</td></tr> <tr> <td>Rural Fires Act 1997</td><td>N/A</td></tr> <tr> <td>Water Management Act 2000</td><td>N/A (would otherwise apply)</td></tr> <tr> <td colspan="2">Legislation that must be applied consistently</td></tr> <tr> <td>Fisheries Management Act 1994</td><td>No</td></tr> <tr> <td>The Coal Mine Subsidence Compensation Act 2017</td><td>No</td></tr> <tr> <td>Mining Act 1992</td><td>No</td></tr> <tr> <td>Petroleum (Onshore) Act 1991</td><td>No</td></tr> <tr> <td>Protection of the Environment Operations Act 1997</td><td>No</td></tr> <tr> <td>Roads Act 1993</td><td>No</td></tr> <tr> <td>Pipelines Act 1967</td><td>No</td></tr> </table>	Act	Approval Required	Legislation that does not apply to State Significant Development		Coastal Protection Act 1979	N/A	Fisheries Management Act 1994	N/A	Heritage Act 1977	N/A (would otherwise apply)	National Parks and Wildlife Act 1974	N/A (would otherwise apply)	Native Vegetation Act 2003	N/A	Rural Fires Act 1997	N/A	Water Management Act 2000	N/A (would otherwise apply)	Legislation that must be applied consistently		Fisheries Management Act 1994	No	The Coal Mine Subsidence Compensation Act 2017	No	Mining Act 1992	No	Petroleum (Onshore) Act 1991	No	Protection of the Environment Operations Act 1997	No	Roads Act 1993	No	Pipelines Act 1967	No
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Petroleum (Onshore) Act 1991	No																																		
Protection of the Environment Operations Act 1997	No																																		
Roads Act 1993	No																																		
Pipelines Act 1967	No																																		
SEPP 55 (Remediation of Land)	Numerous contamination studies have previously been undertaken across the site which have been peer reviewed by Coffey to prepare a preliminary contamination management and remediation strategy. A copy of the review and preliminary strategy is included at Appendix H and concludes that the site can be made suitable for the proposed uses. This is discussed further at Section 5.10 below.																																		
SEPP 64 – Advertising and Signage	Signage is not proposed as part of this application. An integrated signage strategy will be developed for the campus and submitted as part of a future application.																																		
SEPP 65 – Design Quality of Residential Apartment Development	Whilst SEPP 65 and the Apartment Design Guidelines do not apply to student accommodation, the proposal has been designed with consideration to the objectives of these policies. This is discussed further at Section 5.6 below.																																		
SEPP (Affordable Rental Housing) 2009	The proposal has considered the provisions contained within SEPP (Affordable Rental Housing) in regard to residential amenity. Refer to Section 5.46 below.																																		

Instrument/Strategy	Comments	
SEPP (Coastal Management) 2018	The site is located within a 'Coastal Environmental Area' and 'Coastal Use Area' under the SEPP. As such, an assessment of the relevant provisions for land within these areas is provided at Section 5.7.1 below.	
SEPP (Educational Establishments and Child Care Facilities) 2017	In accordance with Part 7 (clause 57) of the Education SEPP, the development is traffic-generating development as it involves a new educational establishment on a site with direct vehicular access to a road. Accordingly, the application should be referred to RMS for consideration.	
SEPP (State and Regional Development) 2011	The aim of the policy is to identify development that is SSD. Pursuant to the SRD SEPP a project will be SSD if it falls into one of the classes of development listed in Schedule 1 of the SEPP. The site (excluding the former heavy rail line) is identified on the Honeysuckle State Significant Development Sites Map and the development has a capital investment value in excess of \$10 million. Therefore, it is SSD for the purposes of the EP&A Act. It is noted that the proposal also triggers SSD as is it for the purposes of an educational establishment that has a capital investment value in excess of \$30 million. A Quantity Surveyor's certificate prepared confirming the total CIV has been submitted under separate cover.	
SEPP (Urban Renewal) 2010	The site is located within a 'Potential Urban Renewal Precinct' identified under the SEPP and the proposal is consistent with the provisions of Clause 10 as it will not restrict or prevent: • Development of the precinct for higher density housing, commercial or mixed use development; • Future amalgamation of sites for the purposes of such development; and • Access to or development of infrastructure in areas associated with existing and future public transport. The proposal is consistent with the objective of developing the potential precinct for the purposes of urban renewal.	
SEPP (Vegetation in Non-Rural Areas) 2017	The site has previously been cleared and does not contain any significant vegetation that requires clearing.	
Local Planning Instruments and Controls		
Newcastle Local Environmental Plan 2012	Land Use Table	The proposed uses, including; educational establishments, boarding houses (student accommodation) and commercial uses are permissible with development consent in the B4 Mixed Use zone. The proposal is also consistent with the objectives of the zone as it: • provides a mixture of compatible land uses; • integrates suitable residential (student accommodation), retail and commercial uses in a highly accessible area that is well serviced by public transport; and • will greatly enhance activity and support adjoining commercial uses within the Newcastle CBD without adversely impact on the viability of other centres.
	Clause 4.3 – Height of Buildings	The site predominantly has a maximum building height of 30m, except for a small portion of land in the south eastern corner which has a maximum building height of 24m. Minor variations to the maximum building height are proposed to allow for lift overruns for Buildings A2 and B, and as such a written clause 4.6 variation request has been prepared and is included at Appendix I. The remainder of the built form complies with the height controls.

Instrument/Strategy	Comments
	Clause 4.4 – Floor Space Ratio The site has a maximum FSR limit ranging from 2.5:1 to the north of Wright Lane, to 3:1 south of Wright Lane. The Concept Plan seeks approval for seven building envelopes with an overall GFA of 62,573m², equating to a maximum FSR of 3.07:1 across the campus. Therefore, the proposed FSR exceeds the control by 0.27:1 across the site and a clause 4.6 variation request has been submitted as part of this application (Appendix J).
	Clause 5.6 – Architectural Roof Features By virtue of clause 5.6, consent may also be granted for the proposed exceedances to the height limit for lift overruns provided that the detailed design of the overruns is fully integrated into the design of an architectural roof feature. Notwithstanding, a clause 4.6 variation request has been submitted as part of this application for completeness and to allow for the proposed lift overrun envelopes to be established.
	Clause 5.10 – Heritage Conservation The site is not identified as a local heritage item, however Sites 2 and 3 are located within the Newcastle City Centre Heritage Conservation Area and a number of local heritage items are located within proximity of the site. The site is also known to have significant archaeological heritage value which is discussed further at Section 5.13 below.
	Clause 6.1 – Acid Sulfate Soils The site is identified as containing class 1 and 3 Acid Sulfate Soil on Council's Acid Sulfate Soils Map. Given that the application only seeks Concept Plan approval, consent for excavation is not sought under this application. An Acid Sulfate Soils Management Plan will be provided with a future detailed design application for the site, or prior to any works commencing.
	Clause 7.5 – Design Excellence Clause 7.5(3) of the LEP requires that all new development in the Newcastle City Centre exhibits 'design excellence'. This is addressed at Section 5.2 below.
Newcastle Development Control Plan 2012	Whilst DCPs do not apply to SSD under Clause 11 of the SEPP (State and Regional Development), the proposal is consistent with the aims of the DCP's 'Honeysuckle' precinct in that: • it addresses both frontages between the former rail corridor and Honeysuckle Drive; • provides through-site links and building addresses to encourage activity, pedestrian and cycle way movement and safety; and • protects heritage significant features of the site.

5.2 Design Excellence

5.2.1 Design Excellence Strategy

UON is committed to buildings that not only meet their specific educational and services requirements but are well designed, well resolved and appropriate to the site and location. In this regard, a Design Excellence Strategy has been prepared (**Appendix G**) which outlines the principles and procedures that will be followed for the delivery of the Concept Plan through subsequent detailed applications. The Design Excellence Strategy is accompanied by Design Guidelines prepared by Cox Architecture (**Appendix A**) which establishes the design parameters for the development of the campus.

These documents will ensure that the architecture and urban design of the campus achieves design excellence and positively contributes to the broader Honeysuckle area and the Newcastle City Centre. The Strategy more specifically articulates the proposed design excellence process and demonstrates how design excellence will be achieved throughout the various stages of the development, including ongoing engagement with the State Design Review Panel (SDRP) and UON's own internal Design Review Panel. This Strategy was presented to the Panel and the approach was endorsed in principle.

5.2.2 Newcastle LEP 2012 Design Excellence Requirements

Clause 7.5(3) of the LEP requires that all new development in the Newcastle City Centre exhibits 'design excellence' and criteria are prescribed in the clause that must be met for design excellence to be achieved. The site is within the defined Newcastle City Centre area and as such must satisfy the design excellence criteria under this clause. Table 8 demonstrates how these criteria is achieved.

Table 8 Assessment against design excellence provisions

Criteria	Assessment
(a) whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved	Design Guidelines have been prepared for the proposal which establish a high standard of architectural design, materials and detailing appropriate to the context of the development and the surrounding public domain. The Concept Plan has been designed to enable future buildings to achieve design excellence and sets a built form framework to support this. The Design Guidelines will be enforced through the proposed Design Excellence Strategy, which will ensure that future applications for the detailed design of each component of the campus achieve these criteria.
(b) whether the form and external appearance of the development will improve the quality and amenity of the public domain	
(c) whether the development detrimentally impacts on view corridors identified in the Newcastle City Development Control Plan 2012	The proposal will not impact on any view corridors identified in the DCP, including those along Worth Place, Settlement Lane and from Newcastle Museum (refer to Section 5.4.3).
(d) how the development addresses the following matters:	
(i) heritage issues and streetscape constraints	Section 6.7 of the proposed Design Guidelines outlines initiatives to celebrate the site's heritage by planning for the integration of important artefacts and discoveries in the overall campus design (refer to Section 5.13).
(ii) the location of any tower proposed, having regard to the need to achieve an acceptable relationship with other towers (existing or proposed) on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form	The proposal does not include any tower forms, however the proposed built form is in keeping with the built form context of the site and seeks to minimise any environmental impacts such as overshadowing, wind and reflectivity (refer to Section 5.3). These matters will be further considered at the detailed design stage.
(iii) bulk, massing and modulation of buildings	
(iv) street frontage heights, overshadowing, wind and reflectivity	
(v) environmental impacts such as sustainable design	Section 6.5 of the proposed Design Guidelines set out a number of requirements that future detailed applications should meet in order to promote sustainability. This includes meeting 5- star Green Star and NABHERS ratings and considering lifecycle costs of development (refer to 5.8).
(vi) the achievement of the principles of ecologically sustainable development	
(vii) pedestrian, cycle, vehicular and service access, circulation and requirements	Section 6.9 of the Masterplan outlines the access strategy for the site which is focused on a series of pedestrian and

Criteria	Assessment
	cycle through-site links which connect to the wider access network. Limited parking is proposed for service vehicles, to meet mobility requirements and for visitors (refer to Section 5.8)
(viii) the impact on, and any proposed improvements to, the public domain	The Design Guidelines establish principles to ensure future detailed proposals deliver a high quality and safe public domain and a common setting for new buildings. Refer to Section 5.3.

In addition to achieving the above design standards, clause 7.5(4) of Newcastle LEP 2012 specifies criteria that trigger the requirement for a design competition to be undertaken for a development, however the development proposed under the Concept Plan does not trigger any of the specific criteria.

5.3 Built Form and Urban Design

Design Guidelines have been prepared by Cox Architecture (**Appendix A**) to establish a structure plan and design objectives for the proposed built form in order to achieve a holistic campus across the various stages of the development. These objectives are based on UON's design principles of creating an engaged, unique and sustainable city campus. Future detailed SSDAs will be required to demonstrate consistency with the vision set out in this document.

5.3.1 Building Configuration and Built Form

The proposed built form massing is the result of extensive design analysis undertaken by Cox Architecture aimed at achieving an optimum urban design outcome for a site with a range of complex variables and competing planning objectives.

The proposed building envelopes have been orientated north-south (unlike other buildings in the precinct which are aligned with the street) to provide the opportunity to deliver the 'Campus Heart' that will have a better relationship with the street and will welcome the public into the campus rather than present as a defensive street wall.

The density of the proposed building envelopes is consistent with the character and scale of existing surrounding buildings and the site's location in Honeysuckle and the Newcastle CBD. **Figure 16** identifies the height in storeys of surrounding development in comparison to that of the site which shows how the development responds to this surrounding character. In particular, the proposed building layout and massing within the site seeks to concentrate density in the west and south-western parts of the campus, where it adjoins existing high density development, and is away from more sensitive uses, adjacent heritage buildings and open space to the east of the site.

Upper portions of the building envelopes which exceed the height limit at the western end of the campus (building envelopes A2 and B) include plant and lift overruns only. It is noted that the parapets of the building envelopes are within the 30m height limit for the site. As detailed in the clause 4.6 variation at **Appendix I**, the elements which exceed the height limit are minor and localised in nature, and will not alter the appropriateness of future development on the site.

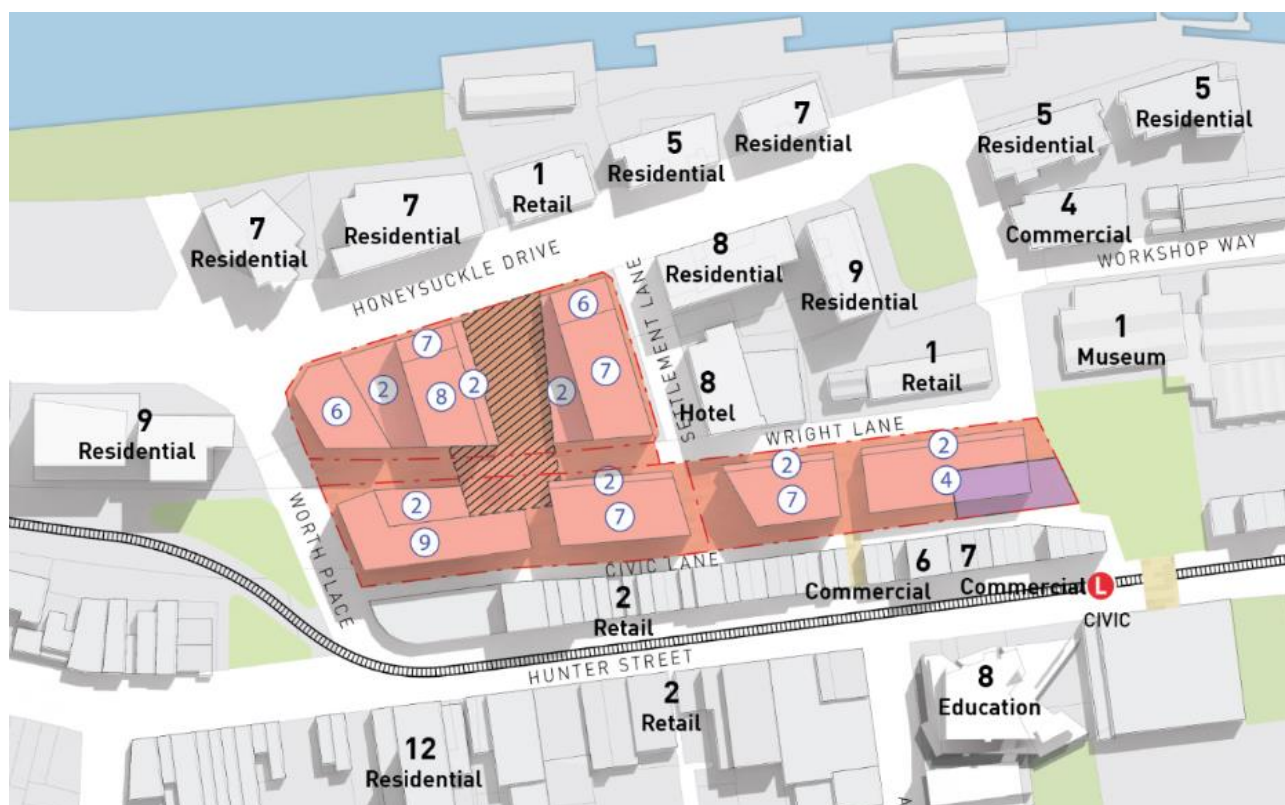


Figure 16 Building height context

Source: Cox Architecture

The proposed building envelope setbacks are shown at **Figure 17** and have been designed to facilitate a suitably scaled public domain for the pedestrian environment of a university campus within the context of a CBD. No setback is provided to Honeysuckle Drive, to be consistent with the surrounding buildings, and a 3m setback is proposed to Worth Place, Settlement Lane and to either side of Wright Lane to promote the free movement of pedestrians and to accommodate underground services. Buildings along Civic Lane are set back 6m to provide appropriate separation between potential future residential development along Hunter Street and to minimise shadowing impacts.

Upper level setbacks are proposed to create human scaled podiums of two storeys around the campus and to provide opportunities for outdoor areas on top of the podiums that maintain a strong connection to the ground plane of the campus. Internal building setbacks and podiums seek to emphasise the key public domain features of the site, including the Campus Heart and Turntable Plaza, and to maximise solar access to the pedestrian/cycleway links.

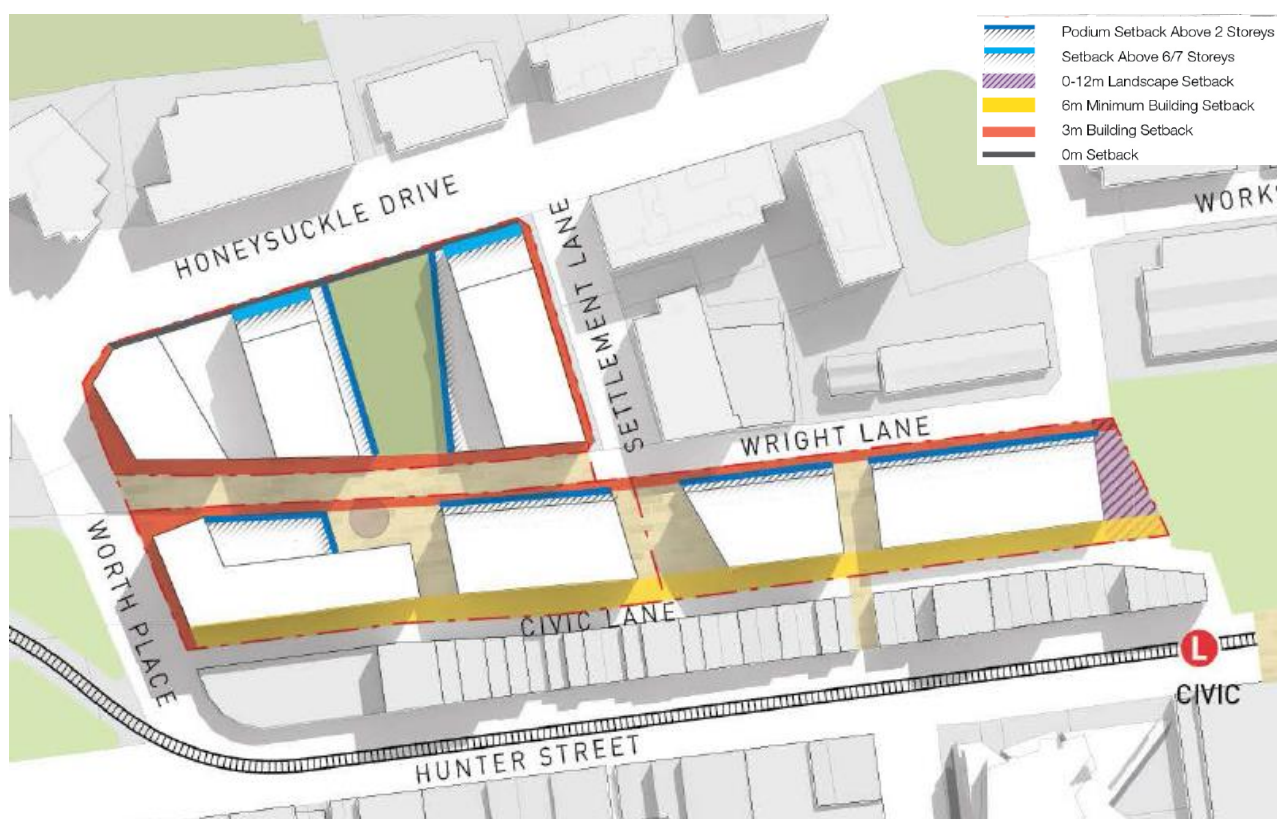


Figure 17 Public domain setbacks

Source: Cox Architecture

The building envelopes proposed offer appropriate interfaces and excellent amenity to ensure the future character of the development is appropriate to its significant location. In this regard, the envelopes provide a sympathetic response to surrounding development, the waterfront and nearby heritage buildings.

5.3.2 Landscaping and Public Domain

Landscaping will play an important role in ensuring a high quality, holistic public domain is delivered across the campus. Cox Architecture has prepared a concept landscape scheme within the site Masterplan (**Appendix A**) to guide the detailed landscape design of the future detailed applications. An extract of the public domain plan is included at **Figure 18** below.

The university buildings are centred around the 'Campus Heart' which is positioned to benefit from excellent solar amenity and to create a generous north-south thoroughfare between Civic Lane, Honeysuckle Drive and on to the waterfront. The character of this area will be enriched through a heritage interpretation strategy based on the uncovering of the existing train turntable to create 'Turntable Plaza'. A north-south link connecting Settlement Lane to Civic Lane is also proposed to the eastern side of Buildings C and D, and there is potential to continue this connection through to Hunter Street in the future by utilising one of UON existing assets.

A major east-west pedestrian/cycle link is proposed down the centre of the site, along Wright Lane, which is envisioned to be closed to traffic between Settlement Lane and Worth Place. This link will be invigorated by ground floor active uses and the two storey podiums of the aligning buildings. A 12m landscaped setback is proposed at the eastern end of this link to transition down to an area of planned open space known as 'Civic Link'.



Figure 18 Public domain structure plan

Source: Cox Architecture

5.4 Impacts on Adjoining Properties

5.4.1 Overshadowing

Shadow diagrams illustrating the shadows cast from the proposed development on 21 June (Winter Solstice) and March 21 (Equinox) have been prepared by Cox Architecture (**Appendix A**) and are extracted below at **Figure 19**. Whilst the properties to the south of the site receive additional overshadowing throughout the day, the proposed buildings are consistent with the scale of surrounding development, as well as that envisioned for the site under the planning controls. Where variations to the height control are proposed for lift overruns, no additional overshadowing is caused as they are positioned in the centre of the building and the shadowing therefore falls within the envelope. It is noted that the overshadowing is only experienced during midwinter, with minimal overshadowing occurring on the Equinox. In addition, the shadow diagrams are based on crude building envelopes which overstate the shadowing that will be experienced upon completion of the development as the subsequent detailed building designs will refine the massing to provide articulation.

The proposed building mass does not overshadow significant areas of open space and the north-south orientation of the buildings maximises solar access to the through-site links and public plaza.



Figure 19 Extract of shadow diagrams

Source: Cox Architecture

5.4.2 Privacy

The proposed built form massing and layout has been designed to avoid any adverse privacy impacts on existing uses surrounding the site. The site contains street frontages on all sides and appropriate setbacks are proposed for the building envelopes which ensure that existing surrounding uses are well separated from the site. Privacy will be further considered as part of the future detailed applications, particular in relation to the student accommodation building.

5.4.3 View Impacts

The Newcastle DCP 2012 identifies significant view corridors within the city centre, including views to the harbour from Hunter Street along Worth Place and from Civic Lane along Settlement Lane. View corridors are also identified from the Newcastle Museum site to the harbour and north-east along Honeysuckle Drive (refer to **Figure 20**).

The proposal will not impact on any of the identified view corridors as these are largely located around the site and will be protected with appropriate setbacks to the public domain. The view corridor along Settlement Lane will be retained by the proposed open pedestrian link connecting to Civic Lane.

It is recognised that some existing buildings to the south of the site, along Hunter Street, and to the east and west of the site, will experience some interruption of local views toward the river. However, this is reflective of the changing nature of the area in accordance with the long-term vision to revitalise Honeysuckle for a medium to high density mixed use precinct. The scale of development is largely consistent with that allowed by the planning controls and the interruption of existing private views that are currently unimpeded by any development is inevitable in the context of urban renewal and the location of the site. Notwithstanding, it is noted that views will be considered as part of each subsequent application for the detailed design of buildings and will seek to implement the principles of view sharing and mitigate view loss where reasonable.

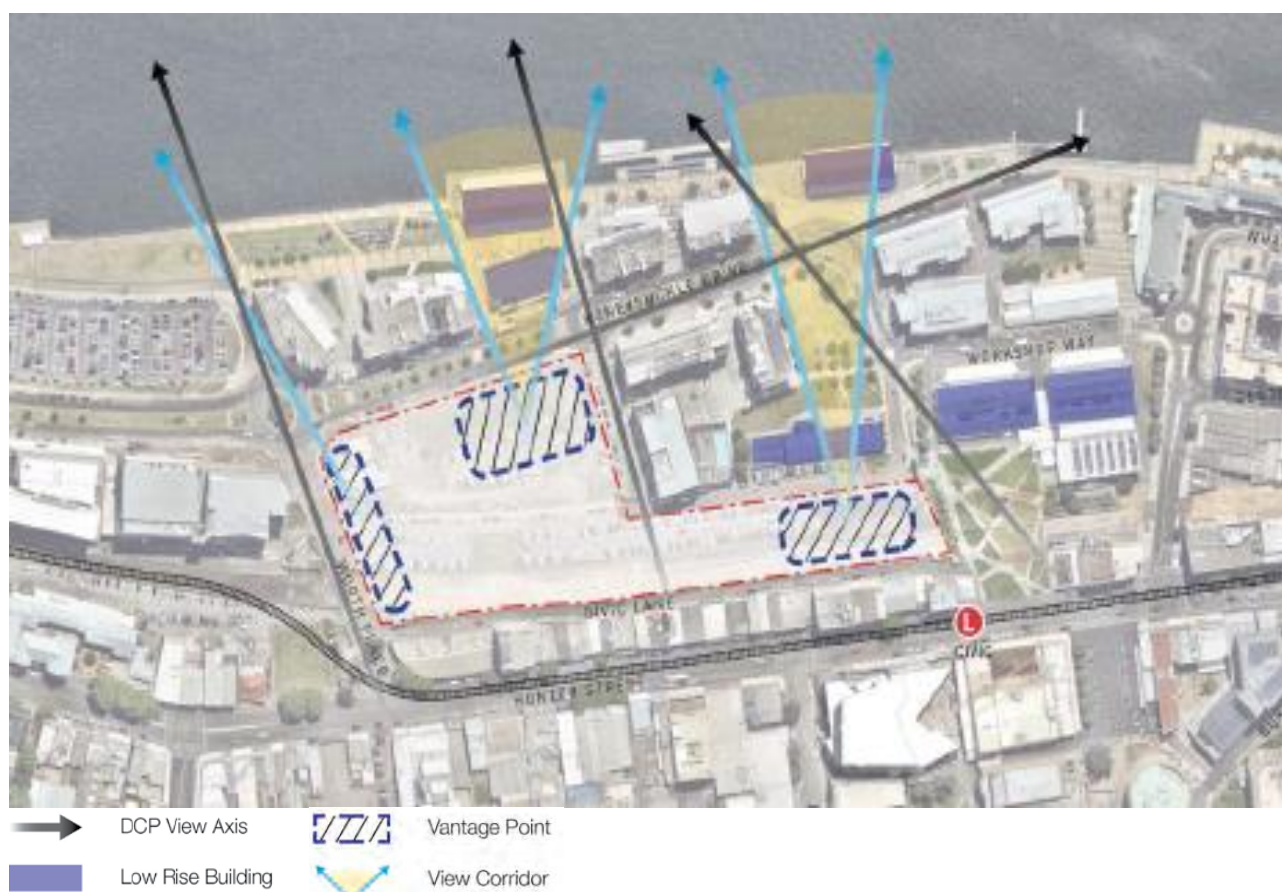


Figure 20 View corridors

Source: Cox Architecture

5.5 Visual Impacts

Section 6.5 of the Masterplan (**Appendix A**) models the visual impact of the proposed development from key areas of the surrounding public domain (refer to extract at **Figure 21**). The proposed envelopes have been designed to respond to the built form context of surrounding development and view corridors through the public domain, consistent with the scale of development envisioned for the site under the LEP. The envelopes form a continuous building line along the streetscape and podiums are used to create a human scale and maintain outlook to the sky. Modulation and articulation of the building forms and their relationship with the public realm will be key considerations of the subsequent detailed design applications.



Figure 21 Built form massing

Source: Cox Architecture

5.6 Residential Amenity of Student Accommodation

The location and proposed massing of the proposed student accommodation building has taken into consideration planning policies and controls which would generally apply to development of this type and scale, including the SEPP (Affordable Rental Housing), as well as the principles of SEPP 65 and the objectives of the Apartment Design Guide (ADG). As set out in Clause 11 of the SEPP SRD, development control plans do not apply to SSD. As such, the Newcastle DCP 2012 does not apply to the proposal. Similarly, SEPP (Affordable Rental Housing) does not strictly apply to the proposal as affordable housing is not proposed, yet the controls within the SEPP (Affordable Rental Housing) act as a suitable guide due to the nature of the residential development being used to house students.

Similarly, whilst SEPP 65 and the ADG do not apply to student accommodation, the Masterplan has been designed with consideration to the objectives of these policies. In particular, the proposed student housing building envelope is:

- of an appropriate size, orientation and form to allow rooms sizes in accordance with SEPP (Affordable Rental Housing);
- orientated to maximise solar access and to achieve natural ventilation;
- located to avoid privacy impacts with residential and commercial buildings on surrounding sites and other proposed buildings on the campus;
- large enough to incorporate communal facilities and includes an expansive podium area which could be utilised as communal outdoor open space; and
- positioned to take advantage of significant views and/or a pleasant outlook to the landscaped campus and the river (at upper levels).

The amenity of the student accommodation will be addressed in detail as part of the detailed application for the student accommodation building.

5.7 Biodiversity and the Natural Environment

The site does not contain any significant vegetation, having been previously cleared and currently used for car parking and the storage of construction material. Accordingly, the proposal will not cause any significant impacts on biodiversity or the natural environment as recognised by the Department of Planning and Environment and the Office of Environment and Heritage in their granting of a waiver for the preparation of a Biodiversity Development Assessment Report (BDAR) on 8 May 2018 (refer to **Appendix D**).

5.7.1 Coastal Management SEPP

The site is located within a 'Coastal Environmental Area' and 'Coastal Use Area' under SEPP (Coastal Management) 2018. As such, an assessment of the relevant provisions for land within these areas is provided at **Table 9**.

Table 9 Coastal Management SEPP Assessment

Control	Assessment
Division 3 Coastal environment area	
(1) The consent authority must consider whether the proposed development is likely to cause an adverse impact on: (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment, (b) coastal environmental values and natural coastal processes, (c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1, (d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms, (e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, (f) Aboriginal cultural heritage, practices and places, (g) the use of the surf zone.	The site is located within a dense CBD environment and is not located immediately adjacent the waterfront. Given the application is for a Concept Plan only, the proposal will not adversely impact: - the biophysical, hydrological and ecological environment; - coastal environmental values or processes - the water quality of a marine estate; - marine vegetation or fauna; - public open space or access to the foreshore - Aboriginal cultural heritage (refer to Section 5.13.3 below); or - the use of the surf zone. These matters will be further addressed through the detailed design process and mitigation measures will be implemented where required.
Division 4 Coastal use area	
(1) In granting consent, the consent authority must consider whether the proposed development is likely to cause an adverse impact on the following: (i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability, (ii) overshadowing, wind funnelling and the loss of views from public places to foreshores, (iii) the visual amenity and scenic qualities of the coast, including coastal headlands, (iv) Aboriginal cultural heritage, practices and places, (v) cultural and built environment heritage, and (b) is satisfied that: (i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or (ii) if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or (iii) if that impact cannot be minimised—the development will be managed to mitigate that impact, and	For the same reasons as above, the development is unlikely to cause adverse impact on: - access to the foreshore; - overshadowing, wind funnelling and loss of views from public places (refer to Sections 5.4.1 and 5.4.3); - the visual amenity and scenic qualities of the coast - Aboriginal cultural heritage (refer to Section 5.13.3 below); - cultural and built heritage (refer to Section 5.13 below); and - the scale and bulk of the development in relation to the surrounding coastal and built environment (refer to Section 5.3). The Concept Plan has been designed and sited to avoid impact on the above matters. Further consideration of the Coastal Use Area will be given at the detailed design stage and mitigations measures will be implemented where required.

Control	Assessment
(c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.	

5.8 Environmentally Sustainable Development

A Sustainability Masterplan has been prepared by Aecom which outlines key Ecologically Sustainable Development (ESD) requirements and drivers (refer to **Appendix K**). It provides a Sustainability Framework which defines the principles that are to be incorporated into the future design, construction and operation of the Honeysuckle City Campus.

The Plan is informed by the applicable sustainability requirements including statutory obligations defined by the Building Code of Australia Section J, EP&A Regulation, SEARS and Newcastle City Council Development Control Policies. Sustainable design considerations for the future development of the Honeysuckle City Campus include:

- rehabilitation and restoration of environmental conditions on the site through decontamination and stabilisation of the mine shafts;
- use of landscaping to manage stormwater and increase local biodiversity and site ecological value and improve local amenity;
- passively designed buildings with high-performing building envelope elements and façade materials to minimise need for artificial lighting and to manage heating and cooling loads;
- use of energy-efficient building services including HVAC, lighting devices and smart control systems;
- application of on-site energy generation through use of solar technology. This could include both generation of electrical energy and thermal energy for generation of hot water;
- appropriate stormwater management and potable water reduction measures through efficient fixtures and use of rainwater harvesting for reuse;
- utilisation of low-emissions materials and mixed mode ventilation to improve indoor air quality;
- utilisation of recycled materials and alternatives to concrete and steel where possible to reduce project life cycle impacts;
- implementation of responsible construction practices that manage environmental impacts and reduce construction and demolition waste;
- comprehensive building operations and facilities management practices including extensive energy and water metering and monitoring systems; and
- operational waste management through recycling and waste handling facilities and procedures.

On the basis of this review, the proposal is capable of complying with the applicable sustainability requirements and statutory obligations.

5.9 Transport and Accessibility

SECA Solution has prepared a Transport and Accessibility Assessment (**Appendix L**) to assess the traffic and parking impacts associated with the proposed expansion of the University campus. This is accompanied by a Transport Access Strategy (**Appendix M**) which provides an ongoing framework for the promotion of sustainable travel modes to minimise reliance on private motor vehicles.

5.9.1 Parking

Consistent with the success of the transport strategy implemented for the University's NeW Space building, it is proposed to implement a restricted parking strategy for the campus expansion to leverage off its prominent CBD location and excellent access to public transport and active transport options. The parking strategy is supported by:

- the site's excellent access to public transport, including two light rail stations within 100m of the campus, bus and ferry services;

- Newcastle Transport's fare free zone in the city centre;
- UON's existing campus shuttle which provides a direct connection between the city and Callaghan campus for students and staff (this shuttle also acts as a Park and Ride service);
- the promotion of cycling and walking through the provision of state-of-the-art end of trip facilities and bike storage;
- bike share programs and electric bike charging stations to align with Council's Smart Cities program;
- pedestrian and cycleways throughout the campus, providing legible and easy connections to the key attractions such as the city centre, the waterfront and public transport;
- provision of information for students and visitors on transport options (including on the University's website);
- the promotion of UON's existing RideShare policy and spaces at the Conservatorium;
- the uptake of carshare programs such as GoGet and rideshare services such as Uber; and
- the provision of student accommodation onsite reducing the need to travel.

Considering the abundance of alternative transport options available to the University, SECA Solution has established a mode share target for future students of 0% car travel, 7% cycling, 39% public transport and 54% walking. It is noted that this is comparable to the mode share of New Space. Accordingly, the Concept Plan only proposes parking spaces for visiting lectures (3 spaces), operations vehicles (6 spaces) and mobility impaired (3 spaces). Student and staff who choose to drive have the option of parking in a public parking station in the CBD or utilising a park and ride facility.

5.9.2 Traffic Generation

Due to the proposed Transport Access Strategy which heavily promotes alternative transport modes for the site, traffic generation associated with the proposed university uses is expected to be below that previously estimated for the site based on it being developed for commercial uses and the commuter parking for the former railway. Accordingly, the proposal is not expected to result in any undue traffic impacts.

5.9.3 Servicing

Civic Lane will be utilised for servicing of the site (including waste management and deliveries) which is consistent with other businesses along Hunter Street. Some loading areas will also be available along the local streets for servicing of end users of the site (such as cafés) which can be accommodated outside of peak hours.

5.10 Contamination and Groundwater

Coffey has prepared a Site Contamination and Mine Subsidence Statement (**Appendix H**). Based on previous contamination assessments, the Statement provides a summary of the contamination status of the site and provides recommendations for further investigations, remediation and / or management of residual contamination.

The Statement provides a summary for each of the three sites. Key findings include:

- Site 1 currently has seven (7) sampling locations assessed for a suite of contaminants of concern (CoCs) and requires an additional thirteen (13) locations to comply with the requirements detailed in the NSW Sampling Design Guidelines (1995). The existing samples were compared against the National Environment Protection (Assessment of Site Contamination) Amendment Measure 2013. The comparison of results showed that the concentrations of contaminants were generally below the adopted criteria, except for lead in two samples at depths of 0.1m to 0.5m, and asbestos detected in two samples along the eastern boundary at 0.1m depth.
- Groundwater at Site 1 contained heavy metal impacts, including copper, zinc, manganese and lead. An additional assessment of groundwater may be required in order to update the status of contamination in line with current guidance and regulations regarding dewatering. Groundwater should not to be used on site unless it is demonstrated to be suitable for its intended use.
- Sites 2 and 3 have been previously assessed by others, with lead and asbestos being identified at less than 1 metre below the surface in the fill. Sites 2 and 3 are currently managed under a site audit statement (SAS) for the specific use as a car park.

- The concentrations of contaminants analysed in groundwater at Sites 2 and 3 indicate that besides arsenic, copper, zinc, which were identified at low concentrations, contamination is not present at levels exceeding the adopted criteria. The source of the arsenic, copper and zinc detected in groundwater is likely to be attributed to local background conditions and is not at levels that would indicate an unacceptable risk to human health or the environment.

5.10.1 Contamination Management and Remediation Strategy

Further assessments have been proposed across each of the three sites (including the currently unassessed areas of the former rail corridor (parts of Sites 2 and 3)) in order to better understand the current status and extent of contamination.

The additional assessments will also develop site specific in situ waste classifications for the management of excavated material. These assessments will directly inform the remediation and contaminated material management strategies moving forward.

Onsite reuse of excavated material is considered the most cost-effective approach so that disposal costs to landfill are eliminated or minimised. The remediation strategy adopted will prioritise the reuse of material generated from onsite excavations (foundation works or services installation/diversions) within the existing site boundary.

Should options for onsite retention prove unviable, or the material not meet resource recovery criteria, then disposal offsite will be the final option employed.

Coffey concludes that provided the recommended assessments across all sites are carried out, appropriate remedial actions taken, and contaminated material managed in accordance with existing guidance, the overall development can be made suitable for the proposed mixed-use development in accordance with the requirements of SEPP 55.

5.11 Mine Subsidence

Coffey has prepared a Site Contamination and Mine Subsidence Statement (**Appendix H**). The Statement indicates that the site is underlain by mine workings within the Borehole Seam at a depth of approximately 75m (Site 1). Sites 2 and 3 are underlain by abandoned bord-and-pillar mine workings in the Borehole Seam. These workings are part of the historic Australian Agricultural Company owned New Winning Pit, with the workings likely carried out between 1906 and 1916.

As a result, Coffey has advised that grouting is required for stabilisation. The proposed grouting works will be discussed with the Mine Subsidence Board and approval will be secured for the grouting works through Newcastle City Council prior to the commencement of works to ensure that the future redevelopment of the site will be safe, serviceable and repairable.

5.12 Flooding and Stormwater Management

A Stormwater and Servicing Assessment has been prepared by Northrop (**Appendix E**) and details the proposed flood mitigation and water cycle management strategies to be implemented for the proposed development. These matters are discussed below.

5.12.1 Flooding

Existing Flood Behaviour and Impact of Climate Change

Existing flood behaviour has been obtained from Flood Information Certificate No. FL2018/00123. The subject site is affected by ocean and local catchment flooding. In summary:

- A peak water level of 2.43m AHD is expected at the site during the 1% Annual Exceedance Probability (AEP) event, as a result of local catchment flooding.
- A peak water level of 3.40m AHD is expected in the Probable Maximum Flood (PMF) as a result of ocean flooding. Flood waters for the ocean flooding are expected to rise slowly relative to the local catchment flood and enter the site from the north-west. A sea level rise of 90cm has been incorporated into this estimate, and as such, it is assumed that this information adequately estimates the impact due to climate change.

- The Flood Information Certificate indicates that the Highest Life Hazard Category for the overall site is L5 for local catchment flooding, however this is applicable to the nearby floodway, and not to the development area. This was confirmed with Council. The highest Hydraulic Behaviour Threshold for the development area is H3, which is equivalent to a Life Hazard Category of L4. An L4 hazard classification is commensurate with flash flooding, and requires evacuation to a suitable flood free refuge within the enclosed flood waters.
- For ocean flooding, the Highest Life Hazard Category is L1. An L1 hazard classification is commensurate with slow rising flood waters, and requires evacuation to flood free land outside of the entire flood.

The site has various flood classifications, however the most critical classification for the subject area within the development footprint is flood fringe. Flood fringe areas are described in DCP 2012 as *'the remaining areas of floodplain not included in flood storage areas and floodways'*.

Proposed Impact of the Development on Flooding and the Environment

As noted above, the most critical flood classification for the subject area within the development footprint is flood fringe. As such, it is expected that the development will have no significant adverse impact on the flood behaviour both onsite and on the adjacent properties.

The Waterfront and Cottage Creek Flood Management Plan (1999) shows a floodway directly to the west of the proposed site, referred to as the Worth Place floodway. The Honeysuckle Redevelopment Area Flood Study (2018), which supersedes the earlier plan, retains the 20m Worth Place floodway, and also includes a 10m wide floodway between building envelopes B and D to allow an overland flow path to be maintained between Civic Lane and Wright Lane. Design consideration will need to be given to this floodway, however the proposed development footprint does not impede on the floodway and is therefore considered to be consistent with the Flood Management Plan.

Compatibility with Floodplain Risk Management Plans and Flood Hazard

The proposed development is generally compatible with the DCP and Newcastle Citywide Floodplain Risk Management Study and Plan (2012) with respect to habitable floor levels and on-site refuge. The Flood Planning Level was obtained from Council in Flood Certificate FL2018/0002 and is derived from The Honeysuckle Redevelopment Area Flood Study (2018). All habitable floor levels are set at the Flood Planning Level, being 2.80m AHD, which equates to the 1% AEP plus 370mm freeboard.

The L4 hazard category, which is applicable to the site, requires on-site refuge above the PMF. Refuge may be sought in all levels above the ground floor for each building, in line with Council's DCP. Further details will be provided in a Flood Emergency Management Plan to be prepared as part of each subsequent development application.

Emergency Management and Evacuation

The emergency response will depend on the type of flooding experienced at the site. For ocean dominated flooding, sufficient warning should be available to evacuate building occupants to higher ground. Conversely, for extreme local catchment flooding, refuge should be sought onsite.

It is expected that prior to occupation, emergency response plans for a range of scenarios will be developed and displayed at prominent locations around the building in the form of a Flood Emergency Management Plan.

5.12.2 Stormwater Management

Existing stormwater drainage networks exist along Honeysuckle Drive, Worth Place and Wright Lane. These stormwater networks all discharge to a trunk drainage culvert which drains to Newcastle Harbour. There is no known existing drainage infrastructure within the former rail corridor. Onsite stormwater retention and detention will be provided as part of the development. On this basis, it is not expected that the existing stormwater network will require upgrading as a direct result of the development.

This stormwater management strategy has been developed in accordance with Council's DCP and the Newcastle City Council Stormwater and Water Efficiency for Development Technical Manual (2017).

Proposed Stormwater Management Strategy

The proposed stormwater management strategy for the development site is summarised below. The strategy will be detailed as part of future detailed development applications for each building:

- The roof area of each building will be captured via charged or gravity downpipes and directed to the proposed storage tanks. The stored volume will be reused internally through toilet and laundry connections and external uses.
- Runoff from internal paved areas and footpaths will be collected and conveyed to aboveground bio-retention basins (rain gardens) in an underground pit and pipe network via a gross pollutant trap. Outlet subsoil drainage pipes from the basins will be directed to the proposed detention storage tanks. The internal pit and pipe network will be designed to cater for the 10% Annual Exceedance Probability (AEP) Storm Event. Overland flow paths will be designed for the 100% AEP Storm Event in accordance with Council's requirements.
- Outlets from the detention / retention storage tanks will be directed to the nearest existing stormwater pit in Honeysuckle Drive, Worth Place or Wright Lane. Depending on the outlet location, the construction of additional junction or kerb inlet pits along the existing stormwater line may be required.

Stormwater Quantity Assessment

Council's DCP requires the provision of site storage controls to limit peak runoff from the development. The objectives of these measures are to reduce the impact of the development on downstream stormwater infrastructure and receiving waters. To satisfy these requirements, stormwater storage is to be provided for each of the proposed buildings. Preliminary storage volumes have been estimated in accordance with Council's storage depth calculation method, and are outlined at Section 3.2 of Northrop's report.

Captured rainwater would be reticulated internally for recycled-water uses, including toilet and laundry connections, as well as externally for landscape irrigation. The volume of reuse provided would be subject to a reuse efficiency analysis, with a typical target efficiency of 80% desirable.

The detention component will be provided in below-ground storage tanks which will be designed to ensure the development results in no increase in stormwater outflows to the external stormwater network. As the storage will be below the flood level, a backflow prevention device will be provided at the outlet of each storage device. Full stormwater modelling of the proposed detention system will be undertaken at the detailed design phase.

Stormwater Quality Assessment

Stormwater quality on-site is proposed to be managed through a treatment train approach to minimise any adverse impacts on the ecology of downstream watercourses and to meet the pollutant removal efficiency targets outlined in Council's DCP. These targets are outlined at Section 3.3 of Northrop's report.

The performance of the proposed stormwater management strategy was assessed against Council's targets using MUSIC modelling. The MUSIC model catchment area includes Sites 1, 2 and 3.

The source nodes adopted to represent the development were the Urban Mixed node and the Urban Roof node. The impervious percentage of the Urban Mixed node was modelled as 85% which is considered conservative.

It has been assumed in the model that 5% of the ground level catchment will by-pass the treatment train. The treatment train incorporates the following:

- primary treatment via rainwater tanks and proprietary gross pollutant traps; and
- tertiary treatment via a series of bio-retention basins.

The MUSIC modelling results shows that the proposed stormwater management strategy is predicted to achieve the load reduction targets set out in the DCP.

5.13 Heritage

Curio Projects has prepared a Heritage Impact Statement (**Appendix N**) for the proposed UON City Campus Concept Plan to identify its potential impact on heritage items, heritage conservation areas, potential archaeological resources and Aboriginal cultural heritage values. The study concludes that the majority of the potential impacts can

be addressed through careful detailed design of the proposed development, consideration of surrounding heritage items, and application of archaeological investigation and mitigation techniques. The key findings are summarised below.

5.13.1 Built Heritage

No built form heritage items are located at the site, however the site is located partially within the Newcastle City Centre Heritage Conservation Area and partially within the curtilage of the State listed Civic Railway Workshops Group and the Civic Railway Station Group.

The study considers that the proposed Concept Plan would have a neutral to minor visual impact on the heritage values of these surrounding heritage items and curtilages. As required by the proposed Design Guidelines, the detailed design of each stage of the development will further address heritage impacts and mitigate these where possible, including through the use of materiality and scale sympathetic to the conservation area and Civic Railway Workshop buildings.

It is noted that there is a separate proposal by HDC for the adaptive reuse of Civic Railway Station which includes the removal of the western platforms located at the south eastern end of the campus. If this proposal is not approved prior to a future detailed design application for this part of the campus, a further Heritage Impact Statement will be required.

The proposed uncovering of the existing heritage significant railway turntable and its integration into the campus design as a central feature of the public domain would represent a major heritage contribution and add to the unique character of the campus.

5.13.2 Historical Archaeology

The archaeological investigations previously undertaken around the study area show that there is potential for the following historical archaeology at the site:

- moderate potential for relics associated with remains of 'Bishop's Settlement' to the south of the original Honeysuckle Point shoreline;
- moderate to high potential for structural remains associated with Mortuary Station in the southwest of Site 2; and
- a moderate to high archaeological potential for remains associated with early railway workshop buildings across the site.

To mitigate the potential disturbance of any archaeological heritage, upon approval of the SSDA, an Archaeological Research Design and Excavation Methodology will be prepared and reviewed by the NSW Heritage Division to allow for the investigation of the above potential sources.

5.13.3 Aboriginal Archaeology

An Archaeological Assessment report for the site was prepared by Curio in accordance with NSW OEH guidelines Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (Due Diligence Code of Practice). This study found that there is:

- no potential for intact Aboriginal archaeological deposits in the majority of Site 1 as it consists of reclaimed land (however disturbed objects may be present);
- moderate to high potential for intact Aboriginal archaeology in the south east corner of Sites 1 and 2, and across Site 3; and
- moderate to high potential for isolated Aboriginal artefacts in disturbed contexts across the site.

In light of the potential Aboriginal archaeology, the process of Aboriginal cultural heritage assessment has been initiated which includes; consultation with the local Aboriginal community, preparation of methodology, preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Archaeological Technical Report (ATR). These documents should be reviewed by OEH and as such a condition of consent requiring this review should be imposed on the Concept Plan.

5.14 Public Benefit and Contributions

The relevant contributions plan for the site is the *City of Newcastle 94A Development Contributions Plan 2009* (as revised in August 2015).

Exemptions from a levy under the existing section 94A Plan may be considered by the relevant consent authority for the following development, or components of development (amongst others):

- *An application on or behalf of Council for community infrastructure, such as but not limited to libraries, community facilities, recreation areas, recreation facilities and car parks.*
- *An application by a NSW government department to enable development defined as an 'Infrastructure Facility' under State Environmental Planning Policy (Infrastructure) 2007.*
- *Any other development for which Council considers an exemption warranted, where a decision is made by formal ratification of the Council at a public Council meeting.*

Where an applicant would like to apply for an exemption to the payment of a Section 94A Levy, they are required to submit to Council at development assessment stage, an application for an exemption giving reasons and providing any necessary evidence for the exemption.

It is noted that the payment of any contribution on this development is discretionary, and that the approval authority, in this case the Minister for Planning, while empowered to impose a condition requiring the payment of a monetary contribution is not required to under either the EP&A Act or Council's Contributions Plan.

University as the Crown and Public Educational Institution

UON is recognised as the Crown by virtue of clause 226 of the EP&A Regulation. Section 4.6 of the EP&A Act provides that in relation to Crown applications, a consent authority is unable to impose a condition of consent without the approval of the University or the Minister. However, the University is conscious of its central position in the Newcastle LGA and its ongoing relationship with Council and the local community. UON also understands the need to continue to work cooperatively with Council to reach agreement on an appropriate balance of development conditions that meet Council's planning responsibilities, whilst also meeting the University's need to provide critical infrastructure.

The Public Nature of the Proposed Development

UON and its functions are inherently of a public nature, providing educational and employment opportunities to the Newcastle community. The proposed expansion of their city campus for new research and teaching facilities is part of the University's core academic functions.

The inherent public character of the campus development is in contrast to a strictly commercial development where a full levy might be considered reasonable (such as applicable in a section 94A Plan).

The underlying purpose of Council's Contributions Plan is to raise funds from private, commercially driven developments to be put towards the cost of public facilities and infrastructure which are burdened by those developments. Imposing a levy on the University's own public infrastructure (and in doing so financially compromising the University's ability to perform its teaching and research functions) conflicts with the public tenet of the Contributions Plan. Indeed, to do so would be simply diverting education-based funding away from the University for other unrelated purposes, potentially with no nexus to UON.

Whilst Council's Contributions Plan does not automatically exclude Crown Developments from the payment of developer contributions, applicants are able to seek an exemption under Section 7 of the Plan.

An exemption is considered appropriate as the University is a not-for-profit public institution which often relies on government grants, donations, and community funding to provide new facilities for both the University community, and the public at large. The levying of a development contribution would divert a portion of these public funds, which have been specifically provided for an educational purpose, to local services without any direct nexus to the impact on those services.

As outlined in further detail below, the nature of the development as a university campus means that many of the categories of infrastructure that Council (such as libraries, recreational areas and community space) is seeking to

levy for are already provided by the University, for use by staff, students and the general public. On this basis, it is considered unnecessary that the development be levied for community facilities, public domain or new open space contributions.

Additionally, the project represents a significant benefit to the immediate community, the City of Newcastle, and the wider region. Not only is the campus expansion acting as a key catalyst for the revitalisation of Newcastle's CBD, fulfilling a key NSW Government initiative, the project is a key piece of education infrastructure. The proposal has direct public benefits and is purpose built to assist and improve the prosperity of present and future generations of people within Newcastle and the state of NSW.

Crown applications – Department of Planning Circular D6

It is noted that Council does not automatically grant exemptions to Crown Developments, however the Department's Circular D6 sets out the reasons why Crown developers should be able to seek exemptions from developer contributions payments.

While Circular D6 "Crown Development Applications and Conditions of Consent" was formulated in 1995, it still remains the guiding document in relation to Crown applications and development contributions. The effect of this circular is, that where the applicant is a Crown authority and the development is for Educational Services, no contributions should be collected for open space, community facilities, parking, and general local and main road upgrades. As the proposed development is for the purpose of a new university campus, it is clearly development for the purposes of Educational Services. Contributions may be levied for stormwater works.

The exemption from payment of contributions relating to community facilities, public domain and new open space is considered appropriate, as the new campus will provide significant areas of accessible open space for public recreation, as well as a range of community facilities available for the general public. These include:

- Grounds and open space (providing activity after hours, enhancing the safety of the area)
- Library (NeW Space);
- Gallery – (Watt Space);
- Legal centre (University House);
- Concert hall (Conservatorium of Music);
- Gymnasiums, pool and other recreation facilities (The Forum Harbourside);
- Teaching space for schools and schools programs (such as moot trials and debating);
- Child care facilities;
- Medical facilities; and
- Auditoriums.

The availability of these amenities and services, which are maintained by UON, reduces the demand on public amenities outside the campus.

6.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the proposed university campus expansion has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

In accordance with the SEARs, the ERA addresses the following significant risk issues:

- the adequacy of baseline data;
- the potential cumulative impacts arising from other developments in the vicinity of the site; and
- measures to avoid, minimise, offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the environment.

Figure 22 indicates the significance of environmental impacts and assigns a value between 1 and 10 based on:

- the receiving environment;
- the level of understanding of the type and extent of impacts; and
- the likely community response to the environmental consequence of the project;

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- the complexity of mitigation measures;
- the known level of performance of the safeguards proposed; and
- the opportunity for adaptive management.

The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

Significance of impact	Manageability of impact				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 – Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Figure 22 Risk Assessment Matrix

Risk Assessment						
Item	Phase	Potential Environmental Impact	Proposed Mitigation Measures and / or Comment	Significance of Impact	Manageability of Impact	Residual Impact
Traffic and Parking	O	- Increased traffic on local roads - Increased parking on local roads	- The existing and proposed parking arrangements and access to public transport have been assessed by SECA Solution in the Transport and Accessibility Assessment (Appendix M). - Actively encourage active transport strategy.	3	2	5 Low / medium
Heritage	C / O	- Impact on surrounding heritage items / conservation areas - Impact on archaeological heritage (Aboriginal and general)	The development has the potential to impact on heritage values, relating to nearby heritage listings, as well as Aboriginal and historical archaeology. However, the potential impacts can be addressed through careful detailed design of the proposed development, consideration of surrounding heritage items, and application of archaeological investigation and mitigation techniques.	3	2	5 Low / medium
Contamination	C	Exposure of contamination or hazardous materials during construction	Implementation of the site remediation strategy and further testing for each stage of the development.	3	2	5 Low / medium
Visual Impact	O	Visual impact of additional development	Visual impacts arising from the form and scale of the proposed buildings will be mitigated through the detailed design process and the establishment of building setbacks and location of plant.	3	2	5 Low / medium
Biodiversity	C	Loss of biodiversity	Given the developed nature of the site and current and historical uses, there are not likely to be any impacts on any threatened species, populations or ecological communities or their habitats.	1	1	2 Low
Water quality	C	No significant impact	Develop a construction management plan for each stage of the development, including erosion and sediment controls and management of storm water.	1	2	3 Low
Flooding	O	Site flooding	Implementation of building freeboards and development of stormwater management strategy for each stage of the development.	2	1	3 Low
Construction noise and impacts	C	- Increase in noise levels during construction activities - Increase in noise levels of operations including students and staff	- Adoption of a construction management plan to minimise and manage noise and vibration emissions from the site. - Construction traffic management measures to be identified through the preparation of a Construction Traffic Management Plan (CTMP) for each stage of the development.	3	1	4 Low / medium

7.0 Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed works are detailed in Table 10 below. These measures have been derived from the previous assessment in Section 5.0 and those detailed in appended consultants' reports.

Table 10 Mitigation Measures

Mitigation Measures
Contamination Undertake all necessary assessments and remedial actions recommended in the Coffey Report dated 21 May 2018.
Mine Subsidence Implement the recommended remediation actions of the Coffey Report (dated 21 May 2018) of Site 1 and consider further structural design to mitigate risks at the detailed design of each development stage.
Noise and vibration Implement the recommendations of the Construction Noise and Vibration Strategy prepared by Aecom dated 22 May 2018 (Appendix O) and undertake an assessment of any likely impacts as part of the detailed design of each development stage.
Sustainability Consider the strategies outlined in the Sustainability Statement prepared by Aecom (dated 16 May 2018) and implement the strategies as part of the detailed design of each development stage.
Flooding and Stormwater - Consider the findings of the Northrop Stormwater and Servicing assessment (dated 11 May 2018) as part of the detailed design of each development stage. - Prepare a full Stormwater
Heritage/Archaeology - Implement the recommendations of the Curio Heritage Impact Statement in relation to built form heritage, historical archaeology and Aboriginal archaeology. - Ensure careful consideration of surrounding heritage at the detailed design for each stage of the development. - Undertake the recommended archaeological investigations and mitigation techniques.

8.0 Justification of the Proposal

In general, investment in major projects can only be justified if the benefits of doing so exceed the costs. Such an assessment must consider all costs and benefits, and not simply those that can be easily quantified. As a result, the EP&A Act specifies that such a justification must be made having regard to biophysical, economic and social considerations and the principles of ecologically sustainable development.

This means that the decision on whether a project can proceed or not needs to be made in the full knowledge of its effects, both positive and negative, whether those impacts can be quantified or not. The proposal involves the development of an inner city brown field site for the expansion of the UON city campus. The assessment must therefore focus on the identification and appraisal of the effects of the proposed change over the site's existing condition.

Various components of the biophysical, social and economic environments have been examined in this EIS and are summarised below.

8.1 Social and Economic

Construction and operation of the proposed development will generate significant economic and social benefits for the Newcastle CBD, the Newcastle LGA and wider Hunter Region during construction and operation. Outlined below is a summary of the direct, indirect and wider social and economic benefits generated by the proposed development:

8.1.1 Construction Benefits

The construction of the proposal will create new employment opportunities for the local and regional economy. The Capital Investment Value (CIV) for proposed development has been estimated by Muller Partnership at approximately \$383 million over the lifetime of the project. A project with a CIV of \$383 million is estimated to support approximately 2,558 full-time equivalent jobs during the construction phase of the project.

As construction of a project of this size relies on the input of a range of industries, the economic contribution and benefits extend beyond the direct capital expenditure for project goods and on-site employment. The flow-on benefits of construction activity are categorised for measurement into two types of economic multipliers described as a production induced effect and consumption induced effect:

Production induced effect – including both a first-round effect which is all of the direct inputs and employment required to construct the project, and an industrial-support effect which relates to the flow-on employment and expenditure required to produce the inputs into the materials/services obtained in the first-round effect. For example, the purchase of reinforced steel bars from a supplier is measured in the first-round expenditure and employment, whilst the induced demand for mining, transport and manufacturing to produce this product is captured in the industrial-support effect.

Consumption induced effect – being the forward effects of expenditure in all industries from wages/salaries of persons employed as a result of the direct and production-induced effects of the project.

The Australian National Accounts 2008/09, published by the Australian Bureau of Statistics, indicate that for every 1 job directly supported in construction, a further 0.57 jobs are supported within the region as a result of production induced and consumption induced effect within the local region. Input-output (I-O) models for Australian construction projects indicate that for every 1 job directly provided directly by a construction project, an additional 0.3 to 0.9 jobs are supported throughout the broader Australian economy. Therefore, based on the estimated direct employment for the construction phase of the project, it is estimated that the proposed developed will support a total flow on effect to approximately 2,226 jobs across the Australian economy. Cumulatively the project will therefore support approximately 4,784 jobs (production and consumption induced) during construction.

8.1.2 Supporting the Knowledge Economy

Once construction is complete and the buildings are fully tenanted it is estimated that they will accommodate approximately 850 (FTE) academic, academic and student support staff and other university workers¹. This type of workforce will directly support the growth and development of Newcastle's knowledge economy.

8.1.3 Increased Economic Activity

As operation of the proposed development is estimated to support approximately 850 academic and academic and student support staff workers, this will significantly change the economic activity generated within the Newcastle CBD. To better understand how much ongoing economic activity is likely to be generated by the proposed development an assessment of workers' to be accommodated in the development is required.

Assessing the salaries generated by workers on the site is the best estimate for calculating changes in economic activity. Similar to the income approach for calculating GDP, it assumes that the total income, or economic output, generated by businesses on the site, must be higher than the total salaries paid to workers. If the economic output of the site was lower than the total salaries paid to workers, the university would not be viable and would cease operation.

For the Newcastle area, the 2016 ABS Census data is used. For the City of Newcastle, derived average income for workers in the Tertiary Education sector was approximately \$77,000. As the proposal will support an estimated 850 workers once completed, the minimum annual economic output for the site is estimated to be \$65,450,000.

8.1.4 Increased Local Expenditure

The additional workers generated by the operation of the proposed development will increase retail expenditure in the local area. This local retail expenditure is expected to be directed toward food-related purchases such as take-away, cafés, restaurant dining and take-home groceries. The remainder of workforce expenditure is dedicated to spending on retail goods, such as clothing and accessories, entertainment, leisure activities and personal services. As a result, the trading conditions of retailers near the proposed development will likely improve.

8.1.5 Access to Work Closer to Home

Residents within the Newcastle CBD predominantly work in industries such as Health Care and Social Assistance Workers (20.03%), Education and Training Workers (11.97%) and Professional, Scientific and Technical Service Workers (10.55%).

Despite the high proportion of residents working in the Education and Training Industry, only a small proportion of the resident population work within the Newcastle CBD with many commuting to other areas within the City of Newcastle and Hunter Region. The proposed development could provide greater access which is closer to the home of residents within the Newcastle CBD.

8.1.6 Agglomeration Benefits

The proposed development will significantly increase the scale and scope of economic activity within the Newcastle CBD. This is likely to generate agglomeration benefits for local businesses. With increasing scale and scope of economic activity, businesses within the Newcastle CBD are able to share costs of production with common suppliers as well share skill labor and knowledge. This means the Newcastle CBD will become a more competitive and desirable place for economic activity.

8.1.7 Local Youth Unemployment

At the time of the 2016 Census it was noted that young residents (aged between 15 to 24) within the Newcastle CBD had an unemployment rate of 10.8%, which was almost double the overall unemployment rate for the area of 5.7%. As noted in Section 8.1.4 above, operation of the proposed development will increase the amount of retail

¹ Ethos Urban estimates, one office worker is supported by every 60m² of commercial GFA. This is derived from the employment estimated from the Western Sydney Parramatta campus available here: https://www.westernsydney.edu.au/campuses_structure/cas/campuses/parramattacity/one_parramatta_square. Other university workers includes food and catering services and security.

expenditure within the local area. This will likely create new employment opportunities in industries such as Retail Trade and Accommodation and Food Services which are generally filled by young workers.

8.1.8 Precinct Development

The proposed development will form a key part of the Newcastle CBD's Civil Precinct and assist Council achieve its objectives to enhance the night time economy, revitalise Hunter Street, promote the use of public and active transport and have vibrant and safe streets. As a major economic activity generator which operates during and outside standard business hours, the proposed development will consolidate and significantly enhance the Civic precinct and help make the Newcastle CBD a world class education, innovation and business hub.

8.2 Biophysical

Section 5.7 above provides an assessment of the biophysical impacts of the proposal and the environmental risk assessment contained at Section 6.0 demonstrates that the proposed development will not result in any significant adverse environmental impacts that cannot be appropriately addressed through standard conditions of consent or the mitigation measures included at Section 7.0.

8.3 Ecologically Sustainable Development

In addition to the ESD principles outlined for the development at Section 5.8, the following section analyses the project against the four principles of ecologically sustainable development in accordance with the EP&A Regulations.

Precautionary Principle

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides 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. The precautionary principle requires careful evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This EIS has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not strictly relevant to the proposal. It is noted, however, that a conservative approach has been applied to all specialist studies supporting the application.

Intergenerational Equity

Intergenerational equity is concerned with ensuring that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations. The proposal has been designed to benefit both the existing and future generations by:

- unearthing heritage significant archaeology for future generations to appreciate and enjoy;
- implementing safeguards and management measures to protect environmental values.
- facilitating job creation and the expansion of a university and student housing in close proximity to public transport; and
- improving the public domain and amenity in the Newcastle CBD.

The proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long term operation implications such as waste disposal would be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this EIS and the appended technical reports.

Conservation of biological diversity and ecological integrity

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration.

The proposal would not have any significant effect on the biological diversity and ecological integrity of the study area.

Improved valuation, pricing and incentive mechanisms

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. Mitigation measures for avoiding, reusing, recycling and managing waste during construction and operation would be implemented to ensure resources are used responsibly in the first instance.

Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases.

9.0 Conclusion

The Environmental Impact Statement (EIS) has been prepared to consider the environmental, social and economic impacts of the proposed UON city campus expansion. The EIS has addressed the issues outlined in the SEARs (**Appendix A**) and accords with Schedule 2 of the EP&A Regulation with regards to consideration of relevant environmental planning instruments, built form, social and environmental impacts.

This report provides an assessment and justification for the development, consistent with the relevant local and State environmental plans and policies. The environmental assessment provided in Section 6 demonstrates the proposed development will have minimal environmental impacts upon the surrounding neighbourhood and any impacts can be managed through the proposed mitigation measures listed at Section 8, conditions of consent or through the detailed design process of a subsequent detailed SSDAs. The proposed envelopes establish the preconditions to appropriately develop and refine the architecture of the building, landscaping and public domain to achieve a design excellence outcome commensurate with the site's prominent location within the Newcastle CBD.

Having regard to biophysical, economic and social considerations, including the principles of ecologically sustainable development, the carrying out of the project is justified for the following reasons:

- it will provide a world class educational precinct within the Newcastle CBD;
- it will establish building envelopes capable of achieving design excellence with minimal impact on adjoining land uses;
- it will be integrated with the surrounding context and provides a high level of pedestrian amenity and permeability at ground level with high quality public domain and landscaping treatments;
- it will contribute to the revitalisation and activation of the Newcastle CBD, promoting investment in the CBD and the growth of complementary land uses; and
- it will help achieve the objectives of the Hunter Regional Plan 2036, Draft Greater Newcastle Metropolitan Plan 2036 and the Newcastle Urban Renewal Strategy 2014.

Given the merits described above it is requested that the application be approved.