URBIS

ENVIRONMENTAL IMPACT STATEMENT

TAFE NSW CONSTRUCTION CENTRE OF EXCELLENCE

PREPARED FOR

TAFE NSW

MARCH 2021

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Director	Peter Strudwick
Consultant	Eliza Scobie
Project Code	P%28091
Report Number	FINAL LODGEMENT

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FIGURES

GLOSSARY AND ABBREVIATIONS

Abbreviation	Key Term
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIMS	Archaeological Heritage and Information Management System
Better Placed	*Better Placed: An Integrated Design Policy for the Built Environment of NSW*
BC Act	*Biodiversity Conservation Act 2016*
BDAR	Biodiversity Development Assessment Report
CC	Construction Certificate
CIV	Capital Investment Value
CMP	Conservation Management Plan
CPTED	Crime Prevention through Environmental Design
CPTMP	Construction Pedestrian Traffic Management Plan
DPIE	Department of Planning, Industry and Environment
Draft Environment SEPP	*Draft State Environmental Planning Policy (Environment) 2017*
Draft SEPP 55	*Draft State Environmental Planning Policy No. 55 – Remediation of Land*
EES	Environment, Energy and Science
EIS	Environmental Impact Statement
EoTF	End of trip facilities
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulations	*Environmental Planning and Assessment Regulations 2000*
ESD	Ecologically sustainable development
FSR	Floor space ratio
GANSW	Government Architect NSW
GFA	Gross floor area
HAA	Historical Archaeological Assessment
HIS	Heritage Impact Statement
IPC	Independent Planning Commission
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*

Abbreviation	Key Term
LGA	Local Government Area
NCC	National Construction Code
NPI	Noise Policy for Industry
RAP	Registered Aboriginal Parties
Region Plan	Greater Sydney Region Plan – A Metropolis of Three Cities 2018
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of Department of Planning, Industry and Environment
SEPP	State Environmental Planning Policy
SEPP 55	*State Environmental Planning Policy No.55*
SEPP 64	*State Environmental Planning Policy No. 64 – Advertising and Signage*
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
SREP 2005	*Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005*
SSD	State Significant Development
SSDA	State Significant Development Application
TAFE NSW	Technical and further education NSW
TAFE NSW CCE	TAFE NSW Construction Centre of Excellence
TfNSW	Transport for NSW
The Minister	Minister for Planning and Public Spaces
The project	State Significant Development application for an educational facility at 2-44 O'Connell Street, Kingswood
The site	TAFE NSW Nepean Kingswood campus, 2-44 O'Connell Street, Kingswood Lot 1 in DP 866081
Transport Strategy	NSW Future Transport Strategy 2056
Urbis	Urbis Pty Ltd
State Infrastructure Strategy	NSW State Infrastructure Strategy 2018 – 2031
GSRP	Greater Sydney Region Plan 2018
The Quarter Plan	Quarter Health and Education Precinct Structure Plan

STATEMENT OF VALIDITY

SUBMISSION OF ENVIRONMENTAL IMPACT STATEMENT

This Environmental Impact Statement has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*.

Environmental Impact Statement prepared by:	
Names	Peter Strudwick and Eliza Scobie
Address	Urbis Pty Ltd Angel Place, Level 8, 123 Pitt Street, Sydney NSW 2000
In respect of	TAFE NSW

Proponent and Land Details	
Proponent	TAFE NSW c/- Urbis
Land details	TAFE NSW Nepean Kingswood campus, 2-44 O'Connell Street, Kingswood Lot 1 in DP 866081
Project	TAFE NSW Construction Centre of Excellence

Declaration

We certify that the content of the Environmental Assessment, to the best of our knowledge, has been prepared as follows:

- In accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*;
- In accordance with the requirements of the *Environmental Planning and Assessment Act 1979* and the *State Environmental Planning Policy (State and Regional Development) 2011*;
- The statement contains all available information that is relevant to the environmental assessment of the development, activity or infrastructure to which the statement relates;
- The information contained in this report is neither false nor misleading.

Name	**Peter Strudwick, Director**	**Eliza Scobie, Consultant**
Signature		
Date	10 March 2021	10 March 2021

EXECUTIVE SUMMARY

This Environmental Impact Statement (**EIS**) has been prepared by Urbis on behalf of Technical and Further Education (**TAFE**) NSW to accompany a State Significant Development (**SSD**) application (**SSDA**) for an educational facility at 2-44 O'Connell Street, Kingswood (**the project**).

The SSDA seeks development consent for the construction and operation of the TAFE NSW Construction Centre of Excellence (**TAFE NSW CCE**) a multi-level, integrated educational facility specifically designed to accommodate specialised training and education for construction-related TAFE NSW courses. The TAFE NSW CCE will comprise a three-storey building and separate at-grade car park and loading area within the existing TAFE NSW Kingswood campus. Key components of the proposal are summarised in **Table 1.**

Table 1 Key components of the SSD proposal

Component	Description
Demolition, site preparation and remediation	▪ No demolition works proposed. ▪ Preliminary earthworks including cut and fill of up to approximately 5m to create a level slab placement at PAD level 51.23.
Built form	▪ Construction of a three-storey educational facility with a building height of 18.5m and a total GFA of 7,857sqm accommodating both internal and external learning spaces, an auditorium, a café kiosk, collaboration / breakout spaces, practical workshop areas and external terraces. ▪ Architectural features including a 'floating' rooftop parasol and external colonnade surrounding the perimeter of the building footprint.
Gross floor area and use	▪ Educational facility: 7,857sqm GFA.
Access	▪ Alteration to the existing vehicular entry/ exit point (Gate 2) on O'Connell Street to widen the width of the vehicular access and remove the existing road median. ▪ Extension of the existing internal vehicular access network to provide vehicular access to the development. ▪ Provision of two primary pedestrian access points to the building on the eastern and western elevations supported by secondary access surrounding the perimeter of the building.
Parking	▪ 16 car parking spaces, including 1 accessible space. ▪ Provision of a loading dock and waste collection area. ▪ 26 bicycle parking spaces and end of trip facilities.
Servicing and utilities	▪ Augmentation of physical infrastructure and utilities as required, including the provision of a 1000kVA dedicated substation, upgrade to the existing water meter to 150mm and augmentation of the gas and piping system.
Trees and landscaping	▪ Removal of 31 trees (28 of which are identified for removal), and installation of tree protection measures for 57 trees. ▪ Provision of landscaping local to the proposed development.
Signage	▪ Provision of eleven building identification and wayfinding signage panels.
Operation	▪ Operational Hours: – Mon – Friday: 7am – 10pm

Component	Description
	– Sat: 8am – 4pm ▪ Staff & Student Projections – TAFE NSW CCE: – Year 2023: Up to 1,780 student enrolments and 43 staff. – Year 2030: Up to 3,500 student enrolments and 78 staff. ▪ Staff & Student Projections – TAFE Kingswood: – Year 2023: Up to 7,780 student enrolments – Year 2030: Up to 9,500 student enrolments
Jobs	▪ 2023: 43 (full time and casual), 2030: 88 (full time and casual)
Staging	▪ No staging is proposed to construct and operate the proposed development.
CIV	▪ $75,139,463

The project seeks to respond to the need for additional and improved learning and teaching spaces to meet the demand for future TAFE NSW enrolments relevant to the construction industry. The operation of the facility will similarly provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development. The project will also bring together educational facilities and industry to provide pathways to post-TAFE NSW employment and more closely align skills with industry requirements. In doing so, this will create relationships between students, industry and the commercial sector to create broader institutional synergies and opportunities for collaboration.

TAFE NSW are strongly committed to the delivery of an educational facility that exhibits excellence in design, environmental sustainability and learning spaces (including both practical and general learning areas) to ensure the adaptability of the centre to accommodate emerging teaching practices and variation in learning styles. Benchmarking of best-practice educational precedents was firstly undertaken prior to design development of the scheme. As discussed in the Architectural Design Report, this included research and analysis of the TAFE NSW South Australia Tonsley Campus, Victoria University Construction Hub, Bendigo Kangan Institute – Automotive Centre for Excellence, Cicada Innovations – National Innovation Centre, Deakin University – Centre for Advanced Design in Engineering, Monash University, and the Wintec Engineering and Trades Facility in Hamilton, New Zealand.

The design of the TAFE NSW CCE targets these best practice benchmarks as a centre of excellence. This is a key tenant and has resulted in the significant design review and development of the proposal informed by feedback from technical consultants as well as key agencies such as the State Design Review Panel (**SDRP**), Transport for NSW (**TfNSW**), Penrith City Council (**Council**) and internal TAFE NSW educational specialists to achieve the high standard of design as proposed. This also involved a two-stage site structure planning process undertaken by TAFE NSW to inform site planning and the optimal location for the CCE, which was approved on the eastern side of the site as reflected within this EIS and the Architectural Plans.

The design of the proposal has also taken into consideration the existing environmental and physical constraints of the site, including site topography, overland flow paths, built form, acoustic considerations, vegetation and prevailing view corridors. From this position, the proposal then seeks to optimise the opportunities presented by the site including future integration with the adjacent Western Sydney University (**WSU**) campus, use of existing infrastructure, and allowance for future 'infill' as educational needs arise. The site's broader location within the Penrith 'Quarter Precinct', a specifically identified health and education precinct, further aligns with the intended purpose of the project.

Effective engagement and consultation with the community, key agencies, registered Aboriginal stakeholders and existing TAFE NSW students and staff has occurred prior and during to the preparation of this SSDA. Where relevant, recommendations have been incorporated into the proposal in response to issues raised. It is noted that this process is ongoing, with further consultation with registered Aboriginal stakeholders and community members to occur during the assessment period of the SSDA. Relevant updates will be provided

in this respect, concurrent with the formal public exhibition period as required under Division 6 of Part 6 of the *Environmental Planning and Assessment Regulation 2000* (**EP&A Regulation**).

This EIS contains an assessment of the proposed SSDA in accordance with the relevant matters under section 4.15(1) and the objects of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) and the Secretary's Environmental Assessment Requirements (**SEARs**) issued for the project. A range of technical reports to address the SEARs and address the impacts of the proposal are provided as appendices to this EIS. The SSD is submitted to the Department of Planning, Industry and Environment (**DPIE**) for assessment and is subject to the Minister for Planning and Public Spaces' (**Minister**) consent under section 4.5(a) of the EP&A Act if the Independent Planning Commission (**IPC**) has not been declared to be the consent authority for the development by an environmental planning instrument.

In summary, the environmental impact assessment finds:

- The proposal will support a direct increase of approximately 88 new jobs on the site by 2030 (including 68 full time and 20 casual), in addition to positive externalities on the NSW economy through the training of up to 700 apprentices each year in construction trades experiencing the most growth. This will provide local job opportunities and employment pathways for the surrounding area. The training will provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development, which in themselves will generate significant and crucial economic benefits for the State.
- The proposal will improve the quality and quantity of educational facilities across the State, reflecting the anticipated growth in total enrolments within TAFE NSW courses of almost 25% between 2020 and 2030, from 17,500 in 2020-21 to almost 22,000 enrolments per annum by 2029-30 as identified in the
- The proposal is consistent with NSW strategic planning supported by all levels of government to deliver additional educational facilities that closely align with industry requirements and future skills requirements for employment opportunities. The strategic justification for the proposal is further reiterated by the NSW Government 2019 announcement for the direct need for the project and associated commitment of public funding to ensure its timely delivery.
- The proposal integrates with both the existing and future character of the TAFE NSW Kingswood site and the surrounding context. The siting of the proposed building footprint and development of the building envelope has had regard to the TAFE NSW Kingswood Structure Plan, and the opportunities for future infill within the site. The permeable nature of the eastern façade similarly enables future connectivity with the WSU Werrington site as this develops into the future.
- There are no planning envelope controls contained within the *Penrith Local Environmental Plan 2010* (**Penrith LEP 2010**) and as such the proposed scale has been considered on its merits and integration with the surrounding locality. Further, the building design has addressed the recommendations of the SDRP provided within both session 1 and session 2 and provides a cohesive design response which exhibits design excellence.
- Through the adoption of management measures identified within the attached documentation, identified environmental constraints related to salinity and acid sulphate can be suitably mitigated.
- The large scale of the site and the low-density character of the surrounding area ensures the proposed development will not have any direct interfaces with sensitive uses, and the built form will not adversely impact acoustic amenity, visual amenity, privacy or solar access.
- An assessment of the European heritage and archaeology of the site indicates the proposal will have no impact on identified or potential items of significance in the locality. Ongoing updates on the outcomes of the Aboriginal consultation and cultural heritage assessment process will be provided to the DPIE throughout the assessment process.
- The proposal will not have an adverse impact on traffic, access, public transport or pedestrian amenity within the surrounding area. Due to the large scale of the site and the existing provision of 907 car spaces on the site (in addition to the 16 proposed within this application for a total of 923 spaces), the site suitably accommodates the additional demand for car parking resulting from the project and will not impact car parking capacity and utilisation on streets within a 400m radius. Further, the traffic modelling demonstrates the traffic volume generated by the proposal will not significantly impact the surrounding road network during the 2026 and 2030 development scenarios – and as such no infrastructure upgrades are required.

- The preparation of a Green Travel Plan and identification of sustainable transport modes will encourage the use of non-car mode share for students and employees when travelling to and from the site.
- The proposal has been designed with sustainability targets focused on reducing carbon emissions, reuse of water, energy and waste flows, and consideration of climate change impacts to ensure the adaptability of the building into the future. The exhibition of best practice environmental performance within an educational facility will similarly influence sustainable outcomes in future educational facilities.
- Construction management measures have been identified within the preliminary Construction Traffic and Pedestrian Management Plan prepared for the project, ensuring the amenity of the existing area and surrounding sites is maintained throughout the construction of the development. This plan further ensures the safety of pedestrians, cyclists and general motorists in the surrounding area.
- Consultation with service providers demonstrates that the site can be connected to all required utilities and infrastructure. Where required, services will be augmented to accommodate the increased capacity.

With the adoption of the proposed mitigation measures, the environmental risk assessment identifies that all risks are categorised as 'very low' or 'low'. Detailed environmental assessment of these risks has been undertaken in the preparation of this SSDA package and the risk levels associated with these aspects of the development have been considered, and on balance the benefits of the project significantly outweigh these risks. In view of the above, we submit that the proposal is in the public interest and should be approved subject to appropriate conditions.

1. INTRODUCTION

1.1. PROJECT OVERVIEW

The proposed SSDA will facilitate the development of the TAFE NSW CCE, a multi-level, integrated educational facility specifically designed to accommodate specialised training and education for construction-related TAFE NSW courses. The TAFE NSW CCE has been designed and developed in close collaboration with TAFE NSW, educational specialists and potential industry partners to ensure the facility responds directly to educational needs and emerging industry trends; thereby creating an innovative, accessible and inclusive learning environment.

Located within the existing TAFE NSW Kingswood campus, the TAFE NSW CCE will comprise a three-storey building with a separate at-grade car park and loading area. Supporting landscaping and public domain works seek to ensure the built form is integrated with the landscaped character of the site while improving the environmental sustainability of the development.

The building design has been conceived to support the delivery of an overarching Structure Plan, complementing existing buildings, connect with future educational buildings within the TAFE NSW Kingswood campus, and similarly respond to future development and built form on the adjacent WSU campus. The interface between the site and the adjacent WSU campus will strengthen synergies between the two institutions and contribute to the overall strength and pre-eminence of the broader education precinct, known as 'The Quarter'. This adaptive and collaborative approach emphasises the importance of educational infrastructure, aligning with local and district-level strategic objectives to enhance the productivity and pre-eminence of the educational offering in the Western City District.

At a local level, the design has also taken into consideration the existing environmental and physical constraints of the site, including site topography, overland flow paths, built form, acoustic considerations, vegetation and prevailing view corridors.

The project seeks to respond to the need for additional and improved learning and teaching spaces to meet the demand for future TAFE NSW enrolments relevant to the construction industry and provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development. The location of the facility within the Western City District will enable synergies with these city-shaping infrastructure projects. The project will also bring together educational facilities and industry engagement to provide pathways to post-TAFE NSW employment and more closely align skills with industry requirements. In doing so, this will create relationships between students, industry and the commercial sector to create broader institutional synergies and opportunities for collaboration.

TAFE NSW identify the following four objectives of the proposal:

- **Objective 1**: Train up to 700 new apprentices each year in construction trades experiencing the most growth.
- **Objective 2**: Create more jobs, a stronger economy, world-class infrastructure, and better opportunities for young people.
- **Objective 3**: Increase capacity to support more students in those qualifications that lead to jobs.
- **Objective 4:** Support Industry Convergence and address the acute skills shortage.

By 2023, the facility will seek to accommodate up to 1,780 student enrolments and 43 staff, which will increase up to 3,500 student enrolments and 78 staff by 2030. The proposal seeks to open for student enrolments in Semester 1, 2023. The importance of achieving these objectives was recognised by the NSW Government in 2019, which announced in the 2019/2020 budget the investment of $7.3 billion in education infrastructure between 2022-2023. This included the commitment of $79.6 million directly to the project. This SSD represents the execution of this NSW Government commitment and follows the preparation and finalisation of the Strategic Business Case and Final Business Case.

The proposal has therefore been thoroughly considered, developed and refined during this process, as well as during the preparation of this SSD which has involved further consultation with key State agencies, utility providers and the local Aboriginal community. This wealth of consultation and engagement has ensured the proposed SSD represents a refined and considered approach worthy of development approval.

1.2. SECRETARIES ENVIRONMENTAL ASSESSMENT REQUIREMENTS

In accordance with Schedule 2 of the EP&A Regulation, the Secretary of the DPIE issued the SEARs for the preparation of this EIS. These are provided at **Appendix A.**

A response table is contained in **Appendix B** which provides a summary of the individual matters listed in the SEARs and identifies where each requirement has been addressed in this EIS and the accompanying supporting technical studies.

1.3. STRUCTURE OF EIS

This EIS includes:

- A description of the site and surrounding context, including the existing development on the site and surrounding development (**Section 2**);
- A detailed description of the project (**Section 3**);
- A detailed description of the consultation undertaken with respect to the project (**Section 4**);
- An assessment of the project against the relevant strategic and statutory planning controls, and the key planning considerations and impacts generated by the project (**Sections 5** and **6**);
- An assessment of environmental risk and mitigation measures (**Section 7**); and
- An evaluation of the project and conclusion (**Section 8**).

1.4. PROPONENT DETAILS

Proponent details are outlined in the following **Table 2.**

Table 2 Proponent Details

Parameter	**Proponent**
Proponent	TAFE NSW
Address	TAFE NSW Level 2, Building A, Mary Ann Street, Ultimo NSW 2007
Primary Principal	Cameron Lang, Investment Project Director

2. PROJECT BACKGROUND

2.1. PROJECT HISTORY

The proposal reflects the significant need for additional education infrastructure in the area, specifically those related to the construction industry.

The Western Sydney International (Nancy-Bird Walton) Airport, Aerotropolis precinct, Western Sydney Employment Area, Sydney Metro West, M12 Motorway and major Western Sydney revitalisation programs are driving a once-in-a-generation construction boom in the Western City District. The scale of these projects will see a significant and unprecedented demand for construction and associated workers to undertake and support this growth, thereby intrinsically linking the successful execution of these projects with the capability of the construction industry.

However, as the leading vocational training establishment TAFE NSW no longer has the capacity to accommodate the course demand within existing campuses. Between 2020 and 2030, there is an anticipated growth in total enrolments of almost 25%, from 17,500 in 2020-21 to almost 22,000 enrolments per annum by 2029-30. Without investment in additional facilities to accommodate this demand, there will be a significant dearth in skilled and well-trained labour, threatening the ability to deliver the pipeline of infrastructure and development in the region (as well as the associated economic benefits).

This critical need was recognised by the NSW Government in 2019, which announced in the 2019/2020 budget the investment of $7.3 billion in education infrastructure between 2022-2023. This included the commitment of $79.6 million *"to provide a new TAFE in the Western Sydney Construction Hub located close to the Western Sydney Airport."*

The Kingswood Campus was selected due to its proximity to the pipeline of major infrastructure projects, civil construction works and residential developments set to transform Western Sydney including the Western Sydney Airport and Aerotropolis, the North South Rail Link, the Northern Gateway Precinct, as well as future projects to service Western Sydney's fast growing population.

Following the selection of the site, Hassell Studio were engaged by TAFE NSW Infrastructure to facilitate in the development of a preliminary business case for the provision of the facility on the Kingswood campus. As there was no master plan in place for the TAFE NSW Kingswood Campus, a two stage site structure planning approach was adopted to inform the optimal location for the new facility on the Kingswood campus.

- Stage 1 of the structure planning works investigated environmental and access considerations and identified possible locations for the hub. This process yielded six potential site locations and a possible site on the western edge of the campus to enable the commencement of preliminary reference design work to inform the business case analysis.
- The Stage 2 structure planning works further analysed the development potential of the TAFE NSW Kingswood Campus and investigated the potential for better use and connectivity between the existing buildings and stronger links with the neighbouring WSU Werrington Campus. The Stage 2 site structure plan identified a preferred location for the CCE on the eastern side of the site, which was ultimately adopted for the preliminary business case. This position was reviewed by the Minister's office and confirmed as the preferred option.

Further discussion of the options considered and justification for the proposed approach is outlined in **Section 2.2**.

Gray Puksand were subsequently appointed as head design consultant to undertake the scheme development and preparation of an Architectural design for the centre.

The SSDA preparation process began in July 2020, with a Scoping Study undertaken and submitted to the Planning Secretary to obtain the SEARs. The Secretary later issued the SEARs for this EIS under section 4.39 of the EP&A Act. This EIS has been prepared in response to the issued SEARs, as identified in **Appendix B.**

2.2. ANALYSIS OF FEASIBLE ALTERNATIVES

Under the provisions of the EP&A Regulation Schedule 2, Clause 7 there is a requirement to analyse any feasible alternatives to carrying out the development, including the consequences of not carrying out the development.

2.2.1. Do Nothing Scenario

The 'do nothing' scenario, which presents no change to the existing TAFE NSW operations in the Western Sydney region and does not involve the delivery of additional educational infrastructure, is not a viable short, medium or long-term scenario for the site or the Greater Sydney educational community. The TAFE NSW Business Case considered this scenario and identified the following implications that would result from the 'do nothing' approach:

- Excess students attend a TAFE NSW further away – Students enrol in a construction-related or different course at a TAFE NSW campus outside of Western Sydney, meaning some students who would otherwise pursue construction-related training no longer do so, contributing further to the shortage of construction industry workers. Following consultation with stakeholders, 25% of students who would have attended the TAFE NSW CCE would fall into this category.
- Excess students attend a non-TAFE NSW facility – Students either enrol in a construction-related or different course at a facility operated by an alternative education provider, such as the Master Builders or Master Plumbers associations. Due to the limited capacity of other training organisations, only a small percentage of students would study construction through this scenario.
- Excess students do not enrol in VET– Some students either delay enrolling in VET courses or never achieve a qualification beyond Year 12. Following consultation with stakeholders, the base case assumes that 75% of students who would have attended the TAFE NSW CCE would fall into this category.
- Excess students enrol at a later date – Some students may enrol in a construction apprenticeship or certificate at a later date, however this is unlikely to occur without crowding out other potential students as the TAFE NSW network is currently at capacity.

The above implications demonstrate that without the development of the proposal, an increasing number of students will be unable to study a trade in an environment of growing opportunities and there will be additional strain placed on the construction workforce to deliver the pipeline of infrastructure and development within both the Western Sydney and broader Greater Sydney region. Resultantly, growth may be slower than expected due to the unavailability of skilled labour and the cost of available labour will be higher due to increase demand – or alternatively, NSW's planned infrastructure pipeline and the associated economic benefits will be unable to be realised.

2.2.2. Alternative Location

During the concept design development, alternative locations for the proposed facility were considered by the proponent. This included six options for building locations with varying orientations within the site. An overview of these design options is outlined in the Architectural Design Statement at **Appendix F.** In summary, the proposed location is considered the most suitable approach based on the following:

- Integration with the TAFE NSW Kingswood Structure Plan and integration with existing buildings and future development opportunities. A key design consideration includes integration with the main east-west spine.
- Alignment with the adjacent WSU campus, and integration with the built form and land use potential of this site.
- Connection with existing infrastructure, to reduce the cost allocation of extending and augmenting physical infrastructure and utilities.
- Consideration of site isolation and proximity to existing internal roads and pedestrian pathways.
- Where possible, reduction in the amount of site excavation and benching required to create a level placement within the site topography.

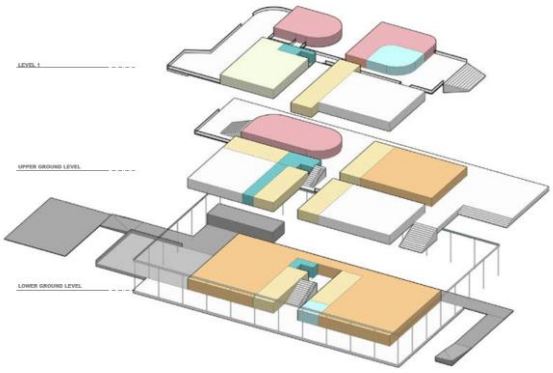
Refer to further discussion in **Section 7.1.1**.

2.2.3. Alternative Design

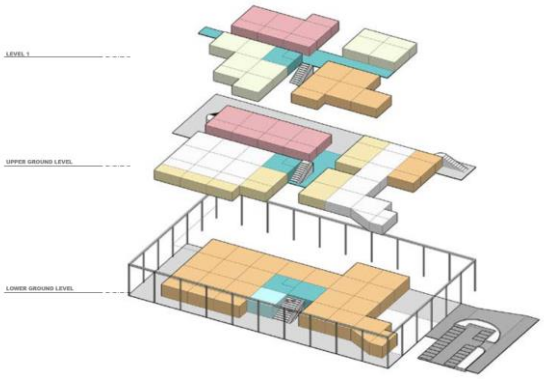
A number of alternative designs for the proposal were considered by the proponent team during design development. These are outlined in **Figure 1**.

Consideration of the various design options for the proposal enabled the emergence of a number of key themes and architectural strategies that have become the key tenants of the proposed development. This includes the concepts of 'pavilion in the landscape', 'building in the round', and the organising floating plane of the parasol. These have been integrated into the design development of the proposal as discussed in **Section 7.1**.

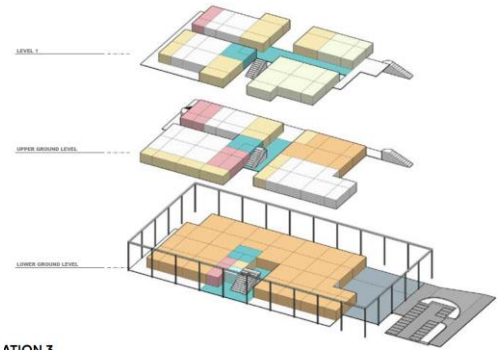
Figure 1 Alternative design considerations



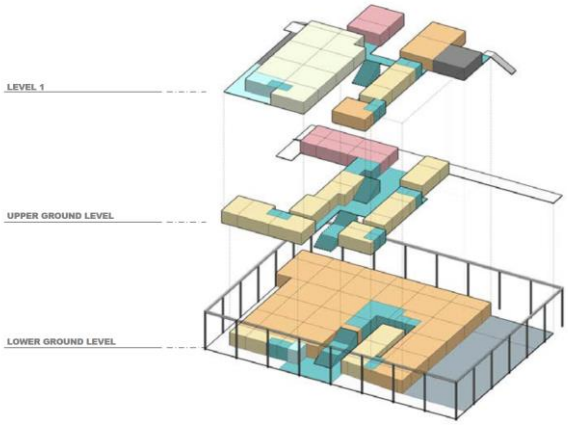
Picture 1 Design iteration 1



Picture 2 Design iteration 2



Picture 3 Design iteration 3



Picture 4 Design iteration 4

Source: Gray Puksand

Whilst the alternative designs considered during the design development process demonstrated a clear understanding of the functional brief, site context and internal connectivity, design iteration 4 demonstrated the best response to TAFE NSW's requirements and improved spatial efficiency when compared to the other three design options. Gray Puksand note the design provides a more resolved spatial adjacency and an improved distribution of functional areas. The consolidation of multiple-volume workshop spaces better corresponds with the covered external workshop space. Similarly, the design enables a reduction in overall excavation as the southern composition of carparks and access roads corresponds with the natural topography of increasing ground levels to the south.

Further discussion of the design development and design excellence of the project is contained within **Section 7.1** of this EIS.

3. SITE ANALYSIS

3.1. THE SITE

3.1.1. Site Description

The land to which this SSDA relates to is the TAFE NSW Kingswood Campus, located at 2-44 O'Connell Street, Kingswood. The legal description of the site is Lot 1 in DP 866081. The site comprises a rectangular lot with an area of approximately 23 hectares, with an interface to Great Western Highway to the north, O'Connell Street to the west, adjoining residential property to the south and the WSU Werrington campus to the east. An identification of the site is provided in **Figure 2.**

The site comprises two distinct characters – a built up institutional character along the western frontage and open fields and landscaping along the eastern frontage. The central and eastern frontage remain as open fields and accommodate a sports field, parking and landscaping. A pond is located on the northern site boundary, which acts as a drainage function. Images of the eastern frontage is provided in **Figure 3.**

Development on the western frontage of the site was established in the early 1980s and features a number of buildings that have been constructed through the 1980s and 1990s, with the most recent building on site completed in 2015. The built form are largely one to two storeys comprising of double brick or brick veneer construction with an institutional character. The earlier building stock are of varying stages of quality and structural condition and are generally aligned to step perpendicular to the slope. Images of the western frontages are provided in **Figure 4.**

The area in which the development is proposed is located on the eastern boundary of the site. This area comprises of clear grassed fields with no site improvements.

Figure 2 Site Location

Source: Urbis

Additional site considerations are outlined in **Table 3.**

Table 3 Site Considerations

Consideration	Site
Site Access	Access to the site is provided from O'Connell Street, principally by car. Car parking areas are located on the northern and southern edges of the site, and features at-grade car parking. Internal pathways provide access between buildings, some of which are provided with a solid awning system.
Services	The site is currently connected to all necessary services including water, gas, electricity and communications.
Topography	Levels in the north eastern portion of the site fall from approx. RL 56.00 AHD to RL 50.00m AHD at an approximate grade of 5-6%. This corresponds to approximately 6.0m difference in elevation.
Geology	The site is underlain by the Wianamatta Group Bringelly Shale, comprising carbonaceous claystone, claystone, laminite, fine to medium grained lithic sandstone, rare coal and tuff. The site is located on Luddenham erosional soil landscape group, which is characterised by undulating to rolling low hills on Wianamatta Group shales often associated with sandstone.
Acid sulphate soils	The ESPADE acid sulfate soil risk mapping indicates that the site is located within an area of 'no known occurrence of Acid Sulfate Soils'. This classification relates to sites where ASS or Potential ASS conditions are not known or not likely to occur.
Vegetation	Vegetation on the site is part of a highly fragmented landscape. The majority of vegetation on site consists of an exotic understorey with weed species and two rows of planted trees. Vegetation within the site is not consistent with any remnant native vegetation communities and does not provide sufficient connectivity to support fauna species. The site features a cluster of trees surrounding the drainage pond, on the site's north-western corner and interspersed between existing buildings. The central portion of large green open space contributes to the site's semi-rural character. As discussed in **Section 5.2.3,** further consideration of the biodiversity impact of the proposal was not considered necessary and a Biodiversity Development Assessment Report (**BDAR**) Waiver was granted by the DPIE on 1 February 2021 (**Appendix G).**
Fauna	No threatened ecological communities or fauna species were identified during primary research and site inspections, likely due to the high level of alteration of the site from its natural state.
Flooding and hydrology	An existing pond is located on the site, along the northern boundary adjacent to Great Western Highway, and a secondary drainage swale is located on the north-western corner. The location of the proposed facility does not lie within the extent of the nominated flood planning area, which is confined primarily to the existing pond towards the north and contains the 1 in 100-year flood event.

Existing images of the eastern frontage of the site where the proposed building is located are provided in **Figure 3**, with images of the western frontage of the site where existing educational buildings are located are provided in **Figure 4.**

Figure 3 Site photos – eastern boundary

Picture 5 The site looking south towards block T with the UWS building on the left

Source: Gray Puksand

Picture 6 The site looking west towards the TAFE NSW buildings

Source: Gray Puksand

Picture 7 The site looking north towards the UWS building

Source: Gray Puksand

Figure 4 Site photos

Picture 8 Looking east towards O'Connell Street

Source: Gray Puksand

Picture 9 Block D looking south-east

Source: Gray Puksand

Picture 10 Block C looking north

Source: Gray Puksand

Picture 11 Looking east towards Block E

Source: Gray Puksand

Picture 12 Looking east towards Building T and UWS

Source: Gray Puksand

Picture 13 Looking east towards Block N

Source: Gray Puksand

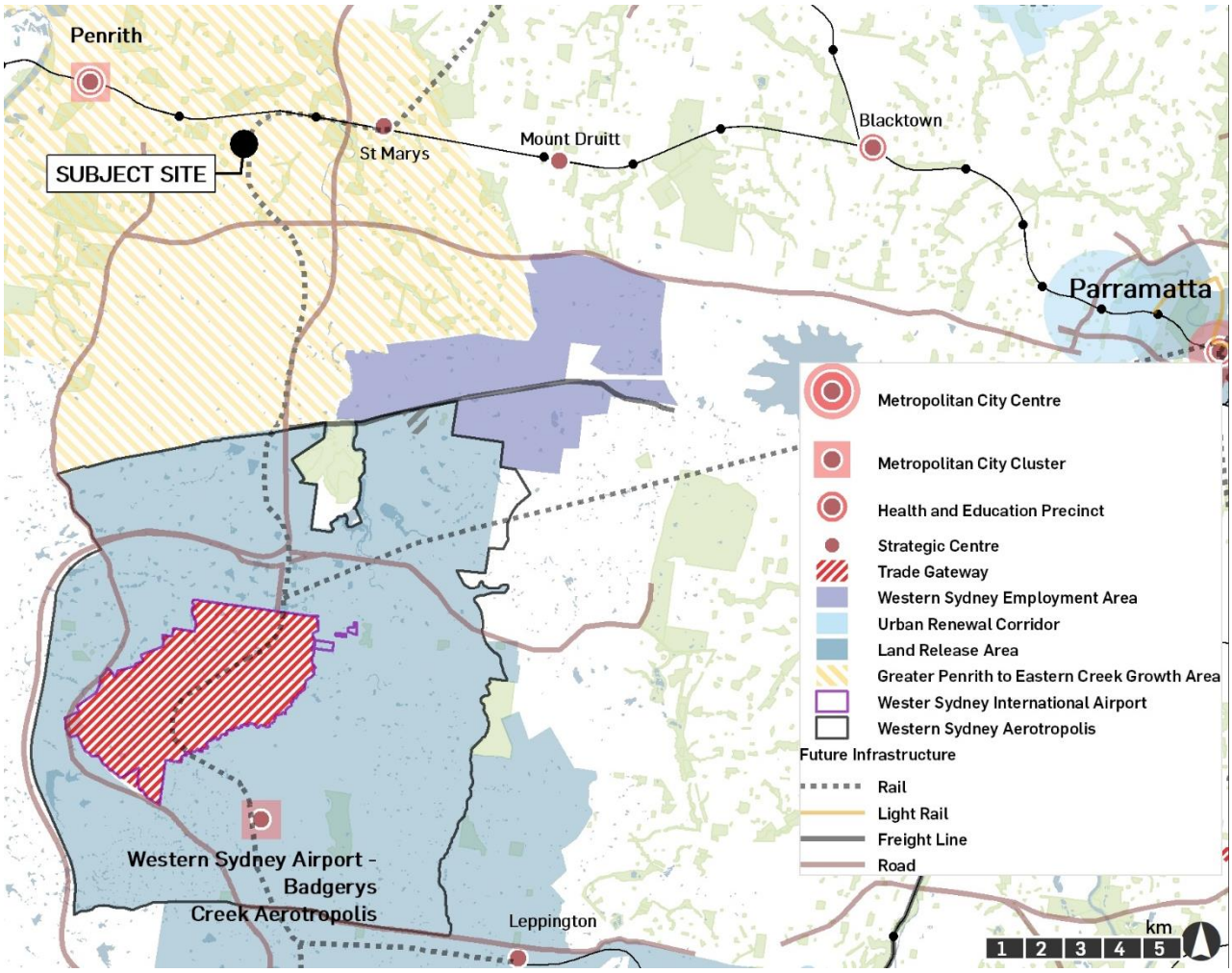
3.1.2. Regional Context

The site is located in Kingswood, located approximately 49 kilometres west of the Sydney CBD within the City of Penrith Local Government Area (**LGA**). The Penrith LGA is located within the Western City District.

The Western City District is the largest district identified by the Greater Sydney Commission (**GSC**) and comprises the Blue Mountains, Camden, Campbelltown, Fairfield, Hawksbury, Liverpool, Penrith and Wollondilly LGAs. This district is experiencing an economic boom facilitated by the Western City Deal, strategic planning priorities and significant investment in transport and freight infrastructure, public and private development.

Kingswood is located on the edge of Penrith, within an evolving context that is currently transition from a predominately rural-residential land use to a suburban character with a mix of residential and institutional. This is fostered by the direct interface to the Great Western Highway, an SP2 classified road that provides east-west access to the Sydney CBD.

Figure 5 Regional Context



Source: Urbis

The site is located within 'The Quarter', a specialised health, education, research and technology precinct. The Quarter spans approximately 245 hectares between Penrith and St Marys and consists of the Nepean Hospital, the TAFE NSW Werrington campus (which accommodates the site), and the WSU Werrington campus and landholdings. This precinct is expected to accommodate 12,000 employment opportunities by 2026 (almost double the existing capacity) through industry clustering and agglomeration. The Quarter has been nominated as part of the collaboration area by the GSC, demonstrating the focus on diversification within the precinct and the adjacent centres such as Penrith City Centre.

The Penrith Quarter Master Plan identifies the WSU Werrington campus and the TAFE NSW Kingswood campus as the two educational anchors, with a priority identified for the continued investment in these anchors to develop the overall predominance of the precinct. This is further discussed in **Section 6**.

3.1.3. Surrounding Development

The site is in proximity to the following land uses and development typologies:

- **North**: To the immediate north of the site is the Great Western Highway. On the site's northern frontage is a local heritage listed item 'Milestone', listed as Item 860 in Schedule 5 of the Penrith LEP 2010. Further north of the Great Western Highway is the WSU Werrington campus, which is identified for future redevelopment as discussed in **Section 3.1.4.** This site also accommodates a local heritage listed 'Werrington Park House', listed as Item 315 in Schedule 5 of the Penrith LEP 2010.
- **East**: Immediately east of the site is the WSU Werrington campus. Further east of the WSU campus is the residential suburb of Claremont Meadows, which accommodates low density master planned housing.
- **South**: Immediately south of the site is a large lot held under single ownership. A development application (DA17/0042) was determined by Penrith Council on 28 November 2017 for a concept plan establishing indicative subdivision pattern, density projections, infrastructure layout and landscape embellishment works. The approval granted consent for a total residential yield of 320 dwellings (with 70 secondary dwellings). Subsequently, a subdivision development application (DA20/0550) was lodged with Penrith Council on 4 July 2020 for a Torrens title subdivision to create 160 new residential allotments, 2 residue lots and road, stormwater and other associated civil infrastructure. It is understood that this application has since been withdrawn. Further south of the residential lot is a large commercial centre known as Caddens Corner. Caddens Corner is owned by WSU and opened in late 2020. The centre accommodates approximately 9,000sqm of retail floor space, car parking and open space.
- **West:** O'Connell Street is located on the site's western boundary. Vehicular access is provided from this interface. Further west of O'Connell Street is residential development, open space and local community facilities. To the south-west of the site is the WSU Kingswood campus.

Development in the surrounding context has a strong institutional character. As illustrated in **Figure 6**, public institutions proximate to the site include WSU campuses (comprising Werrington North (58Ha), Werrington South (50Ha) and WSU's Kingswood campus (56Ha)), the NSW State Archives (13Ha) and the Cobham Juvenile Justice Facility (19Ha). Together these combine into an approximately 220ha precinct owned by four public institutions.

Figure 6 Institutional context

Source: Urbis

3.1.4. Western Sydney University

WSU is a key stakeholder and owns a significant portion of land in proximity to the site. As illustrated in **Figure 6,** WSU have three campuses in proximity to the site as follows:

- WSU Werrington North: Total area of approximately 57.98 hectares, accommodating an observatory and heritage item 'Frogmore House'.
- WSU Werrington South: Total area of approximately 49.44 hectares, accommodating research centres, Caddens corner and car parking.
- WSU Kingswood: Total area of approximately 55.98 hectares, accommodating educational buildings, childcare centre, gym, library, tech and administration, food outlets, research centres, sports fields and an existing pond.

WSU are currently undergoing a master planning activity to determine the future of the WSU Werrington North and South campuses and surrounding landholdings. This process has an extensive history, and it is understood WSU have been in discussions with key stakeholders on determining the planning, land use and built form character of these sites. While the process is preliminary, WSU have indicated this will involve a significant transformation and redevelopment of the campuses. Throughout this process, TAFE NSW have been supportive of identifying potential areas of integration between TAFE NSW and WSU assets through physical pedestrian and vehicular connections, shared use of infrastructure and utilities, establishing shared urban design principles and identifying continuity in open spaces, stormwater paths and recreational pathways.

This connectivity and establishment of an education 'anchor' aligns with the strategic objectives and directions of the Quarter Master Plan, as discussed in **Section 6.1.7**.

The evolving nature of the form and function of the WSU campuses have been considered within the design development of the proposal. While the proposed development responds to the existing built form and of the adjacent WSU Werrington South campus, equally the proposal demonstrates a flexibility to integrate with the future context of the site following the completion of WSU's master planning process.

The locational advantages and synergies of the site's proximity to WSU has been optimised to deliver strategic benefits and generate business and institutional opportunities. Refer to further discussion of the integration of the proposed development with the WSU campus in **Section 7.1.**

4. PROJECT DESCRIPTION

4.1. PROJECT OVERVIEW

The SSDA seeks approval for the construction and operation of a three-storey educational facility, landscaping, signage, vehicular upgrades and an at-grade parking and loading area within the TAFE NSW Kingswood Campus. Known as the "Construction Centre of Excellence", the facility will accommodate specialised training and education for construction-related TAFE NSW courses, accommodating 1,780 enrolments once operational in 2023, with the potential to expand to 3,500 enrolments by 2030.

The design, siting and orientation of the proposal has been conceived to support inter-site connectivity with existing TAFE NSW buildings, and to integrate with the WSU campus located directly east of the site. The modern functional design ensures the proposal can integrate with the surrounding built form and landscape context. Specifically, this SSDA seeks development consent for the following works:

- Preliminary earthworks including cut and fill of up to approximately 5m to create a level slab placement at PAD level 51.23 for the proposed footprint. The surrounding landscaping and public domain area will follow the natural topography of the site with a total fall of 9m from the south-eastern corner to the north-western corner, as illustrated in the proposed Civil Plans at **Appendix H**. The earthworks will result in a total cut volume of 14,518m3 and a total fill of 8,360m3, with the balance to be distributed on site.
- Removal of 31 trees (28 of which are identified as consider or priority for removal), and installation of tree protection zones for 57 trees during construction.
- Associated site landscaping and public domain improvements, including pedestrian pathway connections to the existing car park and western edge of the campus, outdoor seating areas and a lawn terrace. Site lighting is located on all major pedestrian and vehicular routes to the site and within the building curtilage.
- Construction of a three-storey educational facility with a building height of 18.5m and a total GFA of 7,857sqm accommodating both internal and external learning spaces, an auditorium, collaboration / breakout spaces, practical workshop areas and external terraces. The educational facility will provide:
  - Principal building entries on the eastern and western building frontages, level with the adjacent sloped terrain. Secondary access points are located on the northern and southern building frontages. Internal circulation will be provided via two stairways, two lift cores and breezeways.
  - Workshop spaces provided with both single, double and triple-height volumes to accommodate a range of physical activities associated with trade and construction courses.
  - A specialised industry engagement area on the eastern elevation of the building.
  - An internal café kiosk for use of TAFE NSW students and employees.
  - Installation of rooftop photovoltaic panels.
  - End of trip facilities.
  - Plant, storage and amenities dispersed where required throughout the building.
- Provision of an at-grade car parking, loading and access area on the building's southern frontage with:
  - 16 car parking spaces (including 1 accessible) and 26 bicycle spaces within a bicycle storage area.
  - A loading and waste collection area.
- Provision of eleven building identification and wayfinding signage panels.
- Alteration to the existing vehicular entry/ exit point (Gate 2) on O'Connell Street to widen the width of the vehicular access and remove the existing road median, and extension of the existing internal vehicular access network to provide vehicular access to the development on the southern elevation.
- Augmentation of physical infrastructure and utilities as required, including the provision of a 1000kVA dedicated substation within the southern car park and loading area.

Further discussion of the proposal is provided in the following subsections, illustrated in the Architectural Plans at **Appendix E** and discussed in the Architectural Design Statement at **Appendix F**.

4.2. DETAILED DESCRIPTION

4.2.1. Built Form and Design

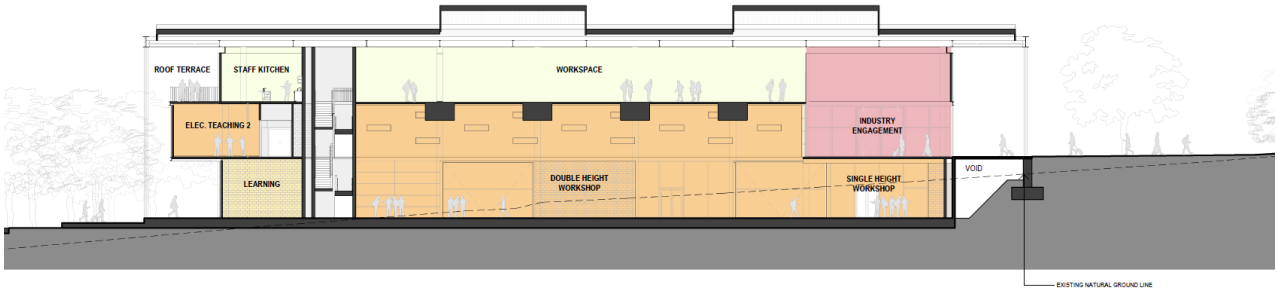
The proposed CCE has a rectangular shaped building footprint with two main pedestrian entries located on the eastern and western elevations, and secondary entrances surrounding the building perimeter. The eastern interface is seen as the institutional frontage with a civic presence to address the adjacent WSU campus, whilst the western frontage provides a more relaxed, student-oriented entrance towards existing TAFE NSW buildings. The narrow northern elevation is oriented towards the Great Western Highway and is setback approximately 150m from the site boundary. An extension of the internal road network up to the southern loading dock, service entry and car park area is also proposed. These separated entries respond to a simple rectangular floor plate proposed with a cross axis (east/west) accommodating a student and civic entry, and an opposing cross axis (north/south) accommodating delivery, services and amenity areas.

Due to the approximate 8m fall of the site, the CCE will appear as a two-storey building at is eastern elevation and graduate to a three-storey building at its western elevation, which is oriented internally towards the TAFE NSW campus. This is illustrated in **Figure 7.** The height will vary between the maximum of 18.5m – 14m at the top of the parapet as a result of the topography. This variation allows for a variety of double and triple height internal and external workshops to accommodate various construction activities. The design proposes a slender roof plane supported by expressed columns along the building perimeter to provide shelter for external workshops, upper-level decks and peripheral areas.

The proposed car park is sited in alignment with the proposed building and is oriented north-south, located to the immediate north of existing TAFE NSW Building T and with its longest side adjacent to the eastern boundary of the site. A combined entry and exit provide access off an extension to the existing road network.

The building is of contemporary design with external materials and finishes that complement the surrounding natural and built environment, whilst also exhibiting the institutional nature of the building. Hard and soft landscaping is proposed surrounding the building to enable its integration with the site, as well as providing a variety of outdoor amenity spaces and promoting water sustainable urban design (**WSUD**) principles.

Figure 7 Proposed building sections



Picture 14 East-west section plan

Picture 15 North-south section plan

Source: Gray Puksand

4.2.2. Structural Solution

Due to the sloped topography of the site, Northrop have developed a structural solution to ensure the structural adequacy of the proposed development. As identified in the Structural Plans (**Appendix I)**, this includes the provision of retaining walls, load-bearing walls and permanent batters in the sub-floor space on the beneath the northern elevation of the building.

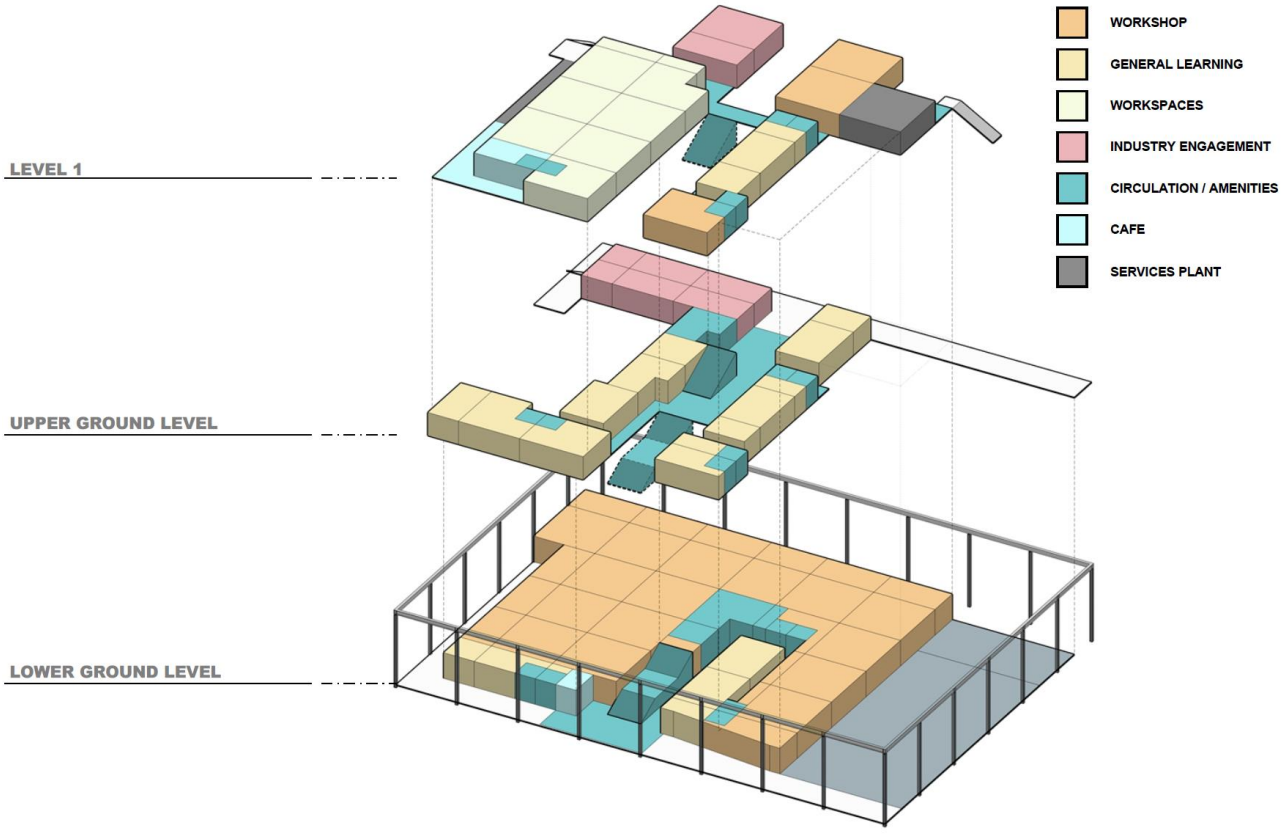
4.2.3. Internal Circulation and Learning Typologies

The proposed development responds to the required spatial typologies, functional relationships and the educational brief established by TAFE NSW for the new facility. Internally, the planning program provides physical and visual connectivity to promote cross-collaboration and engagement between courses. The functional nature of the design strategy seeks to ensure the centre can adapt to future teaching methods and technological advances.

A key objective of the development is the creation of a rational and adaptable program of educational spaces in response to TAFE NSW requirements and emerging pedagogical methods. The configuration of the various learning space typologies spaces within the development is illustrated in **Figure 8** and includes:

- **Practical learning spaces**: Including shared workshop areas (multi-trades triple height spaces, work bench zones and open scaffolding and delivery areas), roof plumbing workshop area (large double volume space with an open format workshop and external sandpit), machine room and welding area.
- **General learning spaces**: Including large group learning/ events spaces (accommodating up to 100 students), general learning spaces (accommodating up to 20 students) and seminar spaces (up to 8 students).
- **Staff workspaces**: Staff amenities including quiet rooms, boardrooms and meeting rooms.
- **Industry engagement spaces**: An exhibition space, events space and collaborative workspaces.

Figure 8 Configuration of learning spaces



Source: Gray Puksand

4.2.4. Façade Design, Signage and Materiality

A number of conventional façade systems have been incorporated into the development which maximise daylight and external views whilst protecting against glare and thermal heat load. As discussed in the Architectural Design Statement, these façades include:

- **Type 1:** Structural glazed window wall on the sub-sill and sub head.
- **Type 2:** Prefabricated façade panels (concrete look or similar).
- **Type 3:** Pre-finished standing seam metal cladding on lightweight façade framing.
- **Type 4:** Prefabricated façade panels with variation in finish and tone to façade panels.
- **Type 5**: Entry structural glazed unitised curtain wall.
- **Type 6:** Plant screening – single staged powder-coated aluminium louvres.

The composition of these façade types and external presence is illustrated in **Figure 9.**

Figure 9 Photomontage of proposed building façade

Source: Gray Puksand

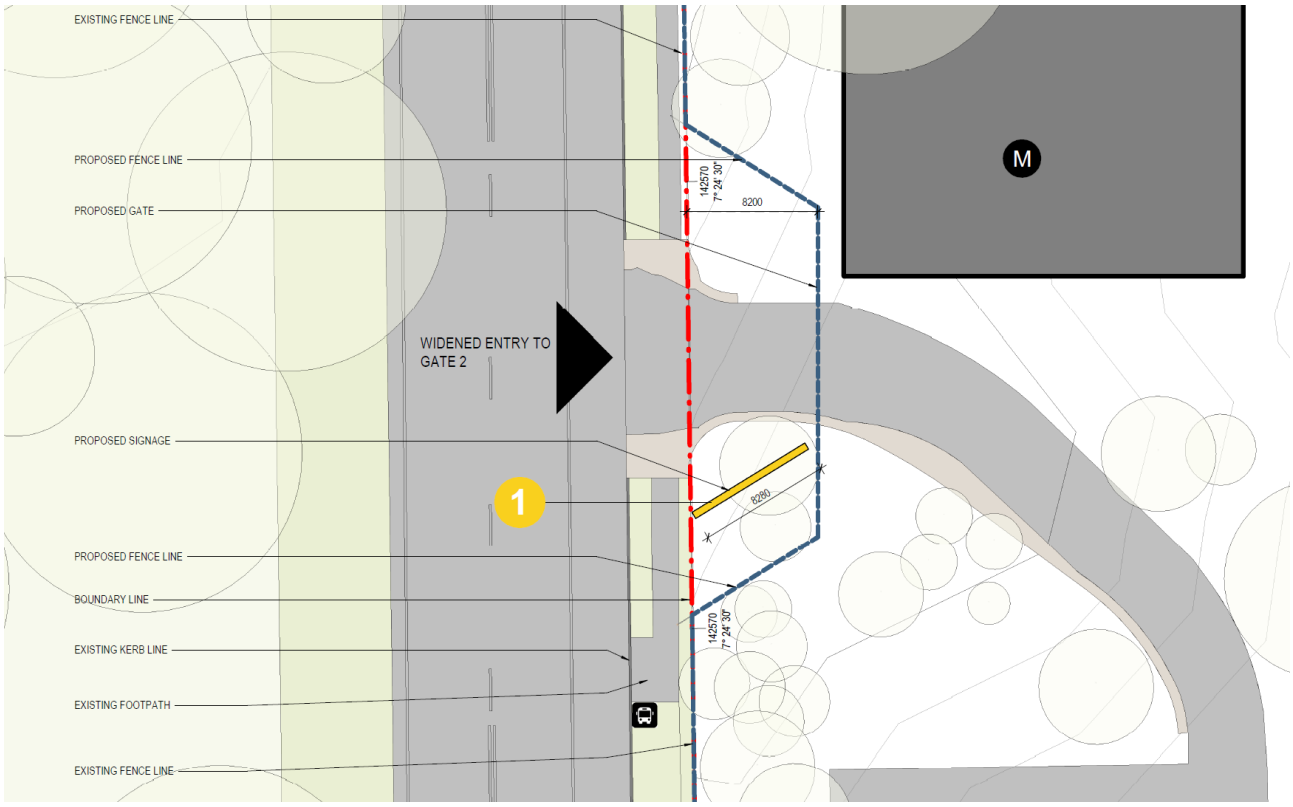
The proposal also involves the erection of ten signage panels (Refer to Signage Plans within the Architectural Plans at **Appendix E)**. This includes two at-grade signage panels for building identification signage (Signage type 1), five wayfinding signage pylons (Signage type 2 and 3), and two wall-mounted façade signage panels for building identification signage (Signage type 4 and 5) as follows:

- Signage type 1: 'TAFE' at-grade signage panel adjacent to the eastern and western building elevations with an indicative height of 1.95m and width of 7.84m, and one located at the Gate 2 site entrance.
- Signage type 2: Directional signage pylon located on the southern boundary of the site adjacent to existing Building T with an indicative height of 3.66m and a width of 0.78m.
- Signage type 3: Directional signage pylon located adjacent to the car park and internal access road with an indicative height of 3m and a width of 0.57m.
- Signage type 4: 'Construction Centre of Excellence' wall-mounted façade signage on the western elevation above the entry doors, with an indicative height of 0.05m and width of 16.36m.
- Signage type 5: 'Construction Centre of Excellence' wall-mounted façade signage on the eastern and western elevations above primary and secondary entries, with an indicative height of 0.015m and width of 2.95m.

4.2.5. Access and Parking

The proposal seeks to amend the existing Gate 2 vehicular access point and internal road from O'Connell Street to increase width and facilitate improved access to the site, as illustrated in **Figure 10.** The proposed amendments involve the removal of the existing median island, widening of the vehicular access and provision of a new safety gate.

Figure 10 Proposed amendment to Gate 2 access



Source: Gray Puksand

An extension to the existing east-west road is proposed to provide access to the loading, services and car park area on the building's southern elevation. This will comprise a combined entry/ exit for efficiencies. The car park seeks to accommodate 16 at-grade spaces, including 1 accessible space. These areas will be for DDA access (both student and staff) and visitor parking, managed in accordance with the existing TAFE NSW parking operations. A separate loading zone is provided to minimise potential risk of vehicular conflict.

A bicycle storage area for 26 bicycles is provided on lower ground, in addition to EOTF.

The proposal includes the creation of a new pedestrian linkage to connect the existing car park area with the CCE, as well as a north/south pedestrian linkage to connect the proposed car park area with the building. These pedestrian linkages will be suitably embellished with landscaping, signage and lighting. Students, staff and visitors arriving via car and public transport stops on O'Connell Street will be able to use these linkages, provide a more direct and safe access than using Great Western Highway footpaths.

4.2.6. Public Domain and Landscape Design

The landscape design concept prepared by 360 Design seek to enhance the site's semi-rural character and provide usable outdoor learning spaces for student amenity and learning. The design of the public domain similarly seeks to integrate with the broader TAFE NSW Kingswood campus and provide for future interactions with the adjacent WSU Werrington campus.

Notably, the generous roof canopy provides a sheltered pedestrian spine which wraps around the perimeter of the building to provide shade and achieve the architectural concept of a 'building in the round'.

The landscape and public domain design for the site comprises:

- The western elevation on the lower ground accommodates an external entry forecourt, a lawn amphitheatre/ terrace oriented towards the west, and an outdoor seating breakout space for student, teacher and industry connections (refer **Figure 11**).
- An external learning 'deck' accommodating social seating and learning spaces is provided on the northern elevation of the building. This deck is directly adjacent to the northern double-height workshop, to provide internal/external connections.
- The eastern elevation on the upper ground provides a more formalised entry forecourt to engage directly with the WSU Werrington campus. A direct linear connection is provided from the pedestrian path, eastern building entrance and internal east/west spine. The provision of bench seating, seating steps and a viewing area to the southern double-height workshop creates an activated and lively public domain.
- WSUD gardens are proposed alongside hardstand areas to reduce runoff, and lawn terraces are proposed adjacent to the western building elevation.
- Pedestrian path connections to the existing car park and western edge of the campus are identified as well as potential future path connections to WSU and the Great Western Highway.
- Endemic planting is proposed in response to site topography and existing microclimates in order to support habitat creation. Refer to Landscape Plans at **Appendix G.**

The proposed landscaping solution seamlessly integrates the building with the adjacent landscape, whilst providing a variety of learning and engagement spaces as illustrated in **Figure 11.**

Figure 11 Integration with TAFE NSW campus adjacent to the primary entrance on the western elevation

Source: 360 Design

4.2.7. Construction

An overview of preliminary construction management practices is provided in the Construction Traffic and Pedestrian Management Plan at **Appendix T**. The proposal will be constructed over a construction period of approximately 68-77 weeks in accordance with the following hours of construction:

- Monday – Friday: 7am – 5pm
- Saturday: 8am – 1pm

Where works are required to be carried out outside of the standard construction hours, prior approval and permits will be sought by the relevant contractor. The preparation of relevant construction management documentation, including a detailed Site Establishment Plan, will be prepared prior to the issue of a Construction Certificate once the contractor has been appointed.

During construction, vehicular access will be provided from the adjacent WSU Werrington South internal road network, which is directly accessed from the Great Western Highway. This is discussed further in the Memorandum of Understanding (**MOU**) provided at **Appendix V.** It is noted that a Construction Access Deed will be executed with WSU prior to the use of this network.

It is intended that construction will be staged to allow the progressive development of the site in accordance with the following indicative stages:

- Stage 1 – Enabling, Civil Works & Inground Services
- Stage 2 – Structure Part 1: In ground and slab on ground
- Stage 3 – Structure Part 2: All Remaining
- Stage 4 – Façade, internal fit-out, landscaping

It is noted that these stages are indicative only and will be subject to further consultation and confirmation with the contractor upon appointment. Further aspects of this construction staging including details of work and other activities to be carried out in each stage and the general timing of when construction of each stage will commence and finish will be resolved post-determination.

4.2.8. Operation

It is intended that following construction; the site will be occupied in a single stage.

The site will be managed in accordance with the existing Security and Operational Management Plan prepared for the site. The TAFE NSW CCE will operate in accordance with the following:

- **Operational Hours:**
  - Monday – Thursday: 7:30am – 10pm
  - Friday: 7:30am – 6pm
  - Saturday: 8am – 4pm
- **Staff & Student Projections – TAFE NSW CCE:**
  - Year 2023: Up to 1,780 student enrolments, 43 staff (full time and part time)
  - Year 2030: Up to 3,500 student enrolments, 78 staff (full time and part time)
- **Staff & Student Projections – TAFE NSW Kingswood campus:**
  - Year 2023: Up to 7,780 student enrolments
  - Year 2030: Up to 9,500 student enrolments

5. ENGAGEMENT AND CONSULTATION

This section describes the consultation activities undertaken by the project team during the preparation of the scheme and the SSDA. Consultation has been carried out with the local community and relevant stakeholders, Government agencies and service providers as directed by the SEARs requirements. The consultation and advice (where provided) has been considered and incorporated into the proposed development, where necessary.

5.1. COMMUNITY ENGAGEMENT

5.1.1. Consultation Methodology

Community consultation will be undertaken with the local community, key stakeholders and existing and future TAFE NSW students. The consultation programme developed by Cadence in collaboration with TAFE NSW commences following the lodgement of this SSDA to the DPIE, to provide additional clarity and certainty to the community on the design approach and intention of TAFE NSW to deliver the proposal.

An overview of the consultation activities proposed is provided below. It is anticipated that these activities will occur in March – April 2021.

- Supporting collateral will be developed for usage across digital and face to face (physical) communication channels
- Project Website linked from the TAFE NSW Nepean-Kingswood website would be the central point of information and engagement for external stakeholders.
- Intranet page, project page linked from the TAFE NSW Centre of Excellence home page would be the central point of information and engagement for internal stakeholders.
- Information Displays / Factsheets, to be used to support all engagement activities
- All staff email, would build on earlier internal communications about the project
- Postcard, via letterbox drop to neighbours, distribute on TAFE NSW Nepean-Kingswood Campus and to WSU for their internal distribution
- Key stakeholder direct engagement / meetings, as required, could include (to be confirmed through stakeholder analysis)
  - Neighbouring developers – Legacy Property, Caddens Hill including shopping centre
  - State Archives
  - WSU internal campus stakeholders (noting that the project team has been engaging with WSU)

An update on the progress of these consultation activities will be provided to the DPIE throughout the process and most importantly at the RTS stage following the public exhibition of the SSD.

5.1.2. Consultation Feedback

Feedback generated from the community engagement process will be considered and integrated into the project where possible. An update on this process will be provided to the DPIE as this occurs at key milestones, including at submission of the RTS report.

5.1.3. Aboriginal Consultation

Consistent with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (**the Consultation Guidelines**), Urbis have commenced consultation with the Aboriginal community regarding the Aboriginal cultural heritage values and cultural significance of Aboriginal objects and/or places within the site. An overview of the consultation activities undertaken is outlined in **Table 4.**

Table 4 Overview of consultation with the Aboriginal community

Consultation activity	**Timing**
Notice to Department of Premier and Cabinet	Issued 6 December 2020
Notice to public in the Koori Mail	Published in 16 December 2020 edition
Invitation to Register letter sent to identified stakeholders	Issued 11th December 2020 and closed 31 December 2020 18 Stakeholders registered for the project
Registered Aboriginal Party (**RAP**) notification to Department of Premier and Cabinet and Deerubbin Local Aboriginal Land Council (**LALC**)	Issued 18 January 2021
Request for comments from RAPs on the provided project information and proposed methodology.	Document provided to the RAPs on 21st January 2021 with the consultation period closing on 18th February 2021.
Notification to Heritage NSW under requirement 15C of Archaeological Test Excavation & Sampling Strategy	Issued 3 March 2021
Test excavation program	22 March 2021 – 26 March 2021

Refer to further discussion in **Section 7.4.3** and the Interim Aboriginal Cultural Heritage Assessment Report at **Appendix M.** A further update on ongoing Aboriginal consultation activities will be provided to the DPIE as this occurs at key milestones, including at submission of the RTS report.

5.2. AGENCY ENGAGEMENT

The proponent and project consultants have consulted with the relevant Government agencies as outlined in **Table 5.**

Table 5 Summary of consultation with government agencies

Government agency/ body	**Consultation**
Penrith City Council	7 September 2020 ▪ Strategic briefing of proposal with Penrith Council City Futures and City Marketing team. ▪ Discussion of planning pathways. 2 February 2021 ▪ Meeting with senior planning and assessment officers. ▪ Agenda included discussion on design development and localised issues including traffic and flooding. ▪ Support provided by Council toward the proposed facility and its overall design.

Government agency/ body	Consultation
	▪ Questions and issues were discussed regarding building design, landscaping, tree removal, parking, access design, traffic volumes, pedestrian links, WSUD, waste disposal and overland flow. ▪ Further details responding to these matters have been included in the relevant part of Section 7 of this EIS and the relevant specialist report in the appendix list.
Government Architect NSW	18 November 2020 ▪ SDRP Session 1. ▪ Briefing with Panel on the project and design response. Refer to **Section 7.1.3**. 17 February 2021 ▪ SDRP Session 2. ▪ Follow up briefing with the Panel on the design development and response to feedback provided in SDRP Session 1. Refer to **Section 7.1.3.**
Environment, Energy and Science Group	▪ Email and telephone discussion on BDAR waiver. Refer to **Appendix H** for BDAR waiver issued 1 February 2021.
Transport for NSW	▪ Consultation with TfNSW has occurred between November 2020 – December 2020 to inform appropriate assessment of the traffic impacts of the development. This consultation confirmed an appropriate approach to COVID conditions was undertaken and resulted in the incorporation and use of SCATS data from 2019 in the traffic impact assessment. ▪ Refer to Transport and Accessibility Impact Assessment at **Appendix S.**
Endeavour Energy	▪ Consultation with Endeavour Energy to establish the requirements for power connection and substation provision within the site. ▪ Application for Connection of Load submitted, and Connection of Load Offer issued by Endeavour Energy on 21 December 2020. ▪ Refer to Utilities and Infrastructure Management Plan at **Appendix GG.**
Jemena	▪ Consultation with Jemena to establish the requirements for gas connectivity and servicing of the site. ▪ Refer to Utilities and Infrastructure Management Plan at **Appendix GG.**
Sydney Water	▪ Consultation with Sydney Water ▪ Application for Feasibility Section 73 issued on 23 December 2020. ▪ Ongoing discussions to formalise approvals. ▪ Refer to Water Related Infrastructure Requirements Report at **Appendix GG.**
Aboriginal groups	▪ Statutory consultation with Registered Aboriginal Parties (**RAPs**) as part of the preparation of the Aboriginal Cultural Heritage Assessment
NSW Department of Premier and Cabinet (**DPC**)	▪ Aboriginal consultation stakeholder list provided to DPC on 17 November 2020. ▪ RAP notification issued on 18 January 2021.

Government agency/ body	Consultation
Minister for Skills and Tertiary Education	▪ Ongoing consultation, review and sign off from Minister for Skills and Tertiary Education throughout the development of the strategic business case and preparation of the SSD. This included approval of the strategic business case in March 2020, public announcement by Minister in June 2020, and approval of the final business case in February 2021. ▪ EOI process initiated by the Minister for Skills and Tertiary Education for industry and universities to partner with TAFE NSW in the design and delivery of the proposal in October 2020.
Infrastructure NSW	▪ Ongoing consultation, review and sign off from Infrastructure NSW throughout the development of the strategic business case and preparation of the SSD. This included multiple reviews in February 2020, July 2020 and December 2020.
Western Sydney University	▪ Ongoing consultation throughout the design development process, comprising a regular meeting and update on progress.

6. STRATEGIC AND STATUTORY CONTEXT

6.1. STRATEGIC PLANNING FRAMEWORK

The need for the project stems from, and is consistent with, the suite of strategic planning studies developed at a State, regional and local level that identifies the integral role played by vocational facilities and universities in educating and developing a strong, educated workforce to support economic growth in NSW.

These strategic policies identify a significant level of investment and development within Western Sydney including, but not limited to, the Western Sydney International (Nancy-Bird Walton) Airport, Aerotropolis precinct, Western Sydney Employment Area, Sydney Metro West, M12 Motorway and Outer Orbital link. Integral to the successful execution of these projects, which are in various stages of planning, construction and operation, is skilled labour within the region to undertake these projects. The proposed TAFE NSW CCE will respond to these strategic priorities and provide training and up-skilling to align with and enable the infrastructure and construction boom within Western Sydney and into the future. Alignment with strategic priorities is discussed in the following subsections.

6.1.1. NSW Premier's Priorities

The NSW Premier's Priorities were announced in June 2019 and are a set of 14 priorities that aim to keep the economy strong, create jobs, deliver world-class services, protect the vulnerable and ensure that all NSW citizens and communities share in the state's success. Specifically, the proposal is directly consistent with the Premier's Priorities "*Bumping up education results for children*" and "*Greening our city"*.

Whilst the proposal will provide vocational training for students (rather than child education), the proposed development is in accordance with the broader Premier's objectives of lifting educational standards and providing high-quality education, thereby facilitating greater job opportunities and economic stimulus. The proposed facility has been designed as a robust and flexible facility that can accommodate new teaching methods in the future. The proposed development will similarly contribute to the objective to increase tree canopy across Greater Sydney, which is critically important in the Penrith LGA to mitigate increasing temperatures. The proposal retains the largely landscaped character of the site through the integration of the built form with the topography and vegetation of the site, and the proposed landscaping design surrounding the building.

6.1.2. NSW State Infrastructure Strategy 2018-2038

The NSW State Infrastructure Strategy 2018 – 2031 (**State Infrastructure Strategy**) is a 20-year strategy that identifies policies and strategies needed to provide infrastructure for the population and economy. Education is the key infrastructure sector identified in the State Infrastructure Strategy of relevance to the proposal. Building on the education sector, the State Infrastructure Strategy sets six cross-sectoral strategic directions to guide the use and management of the State's asset base across infrastructure sectors.

The Minister's commitment of $79 million for the development of the TAFE NSW CCE demonstrates the prioritisation of and investment in the educational sector, and more specifically this proposal. The proposal similarly responds to a key objective of integrating land and infrastructure planning through delivering the proposal within an area with access to railway and bus networks as discussed in **Section 6.1.3**.

The strategic objective identified for the education sector is *"Deliver infrastructure to keep pace with student numbers and provide modern, digitally-enabled learning environments for all students"*. The proposal is in direct accordance with this objective as follows:

- The TAFE NSW CCE will respond to and support changing skills requirements as informed by industry through a robust and flexible learning environment that can accommodate new teaching methods, digital advancements and practical skills.
- Approximately by 2030, up to 3,500 students will be accommodated within the TAFE NSW CCE; a direct increase to the capacity of educational facilities within the area in response to increasing demand.
- The proposal leverages partnerships with the WSU through physical, visual and institutional connections with the adjacent Werrington campus.
- The proposal will deliver a modern TAFE NSW vocational facility that supports new educational offerings in response to increasing competition, advances in digital learning and contemporary training methods.

6.1.3. NSW Future Transport 2056 Strategy

The *NSW Future Transport Strategy 2056* (**Transport Strategy**), issued in March 2018, is an update of NSW's Long-Term Transport Master Plan. The Strategy identifies objectives to improve transport in NSW and an overview of initiatives for investigation in the immediate future. In proximity to the site, this includes the M4 Smart Motorway (0-10 years), North-south Rail link (0-10 years), Western Sydney Growth Roads Program (0-10 years), Western Sydney Freight Line (10-20 years) and the Outer Sydney Orbital (10-20 years).

The proposal will both benefit from, and contribute to, the success and realisation of the Transport Strategy objectives. The site's proximity to both Kingswood and Werrington railway stations will support the use of these stations as key transport nodes within the region. Furthermore, the location of an educational establishment within this area will increase customer patronage and transport demand in this area, endorsing the indicative transport corridors within the Transport Strategy as identified above.

6.1.4. Greater Sydney Region Plan

The Greater Sydney Region Plan 2018 '*A Metropolis of Three Cities'* (**GSRP 2018**) is the current metropolitan plan for Greater Sydney. The GSRP 2018 sets a 40-year vision for the three cities – the Western Parkland City, Central River City and Eastern Harbour City.

The site is located within the Western Parkland City. An assessment of the proposal's compliance with the applicable objectives of the GSRP 2018 is provided in **Table 6.**

Table 6 Greater Sydney Region Plan consideration

Objective	Evaluation
Objective 1 Infrastructure supports the three cities	The proposed development seeks to provide a critical form of new educational infrastructure to ensure the equitable balance and provision of vocational facilities across Greater Sydney. The provision of this infrastructure will enhance local employment opportunities and similarly contribute to the successful completion of a range of physical infrastructure projects within the Western Parkland City, supporting the shaping of a connected city.
Objective 3 Infrastructure adapts to meet future needs	Creating a flexible and adaptable facility is a key tenet of the design response, to ensure the facility can accommodate emerging teaching and learning methods in response to industry feedback and evolution in the construction industry. Agreements for shared use of infrastructure has been considered by TAFE NSW through shared use of the WSU access road and will be explored in the future as the adjacent WSU Werrington South campus evolves. This will ensure facilities are maximised and efficiencies are created.
Objective 5 Benefits of growth realised by collaboration of governments, community and business	This SSDA is a unique proposal due to the extent of collaboration and involvement of key government and State agencies in the evolution of the proposal. As discussed in **Section 2.1**, the need for the proposal was recognised by the State government through the commitment of $79.6 million to the proposal. Since this investment decision, coordination between TAFE NSW, government agencies and key stakeholders such as WSU has occurred to ensure the efficient and successful delivery of the project. It is noted the site is also located within the Greater Penrith collaboration area, and specifically within the Kingswood health and education precinct. Consistent with the Greater Penrith Place Strategy developed by the GSC, the proposal seeks to strengthen the health and education precinct through the provision of additional learning facilities, facilitating business/ industry relationships and maximising access and use of the Kingswood and Werrington stations.

Objective	Evaluation
Objective 6 Services and infrastructure meet communities' changing needs	Improving the distribution, quality and access to vocational facilities is a key objective of the proposed development. The provision of the TAFE NSW CCE within the Kingswood campus is a strategic decision to stimulate learning opportunities in the Western Parkland City, wherein a number of major physical infrastructure projects are currently underway. Similarly, the co-location of the facility with the WSU campus will enable opportunities for collaboration, as well as stimulate connectivity within the community.
Objective 7 Communities are healthy, resilient and socially connected	The design of the proposed development incorporates opportunities for shared learning, collaboration, break out spaces (indoor and outdoor) and industry engagement. The social connectivity accommodated within these areas will support a healthy and resilient student cohort, with opportunities to expand this to the broader community.
Objective 13 Environmental heritage is identified, conserved and enhanced	The proposal is consistent with the statutory framework which identifies and conserves places of heritage significance. As discussed in **Section 7.4**, the proposal will not have an adverse impact on the significance of local heritage items, and mitigation measures are proposed to ensure archaeological items of significance are retained (where identified) during construction and operation. A robust ongoing analysis and consultation with the Aboriginal community will similarly ensure the protection and management of Aboriginal values related to the site and locality.
Objective 15 The Eastern, GPOP and Western Economic Corridors are better connected and more competitive	A well-trained and skilled construction workforce is crucial to the success and delivery of the Western Economic Corridor. Providing residents with access to tertiary education within the corridor is identified as a key matter of consideration in the GSRP 2018, which this proposal directly responds to. Growing skills, investment and educational opportunities within the TAFE NSW CCE will create employment opportunities and enhance economic success of the corridor.
Objective 20 Western Sydney Airport and Badgerys Creek Aerotropolis are economic catalysts for Western Parkland City	The proposed development will contribute to the economic success and growth of the Western Parkland City through the creation of a skilled construction workforce to undertake the physical execution of the works, as well as contributing to the emergence of a education cluster within 'The Quarter' health and education precinct. The proposal will anchor the university presence within Greater Penrith and create synergies between existing institutions such as WSU Werrington and Kingswood campuses, Nepean Hospital and Nepean Private Hospital. Emergence of this cluster will provide critical population services as the Western Parkland City develops.
Objective 21 Internationally competitive health, education, research and innovation precincts	As stated above, the proposal will contribute to the emergence of a health and education precinct within Greater Penrith. Tertiary education is identified as a key factor in the success of these precincts, and also plays a critical role in driving the export industry which is a critical sector in the NSW economy. At a local level, the design of the proposed development has considered global best practice for educational facilities as discussed in the Urban Design Statement (**Appendix F)** to support high-quality learning, attract business and industry, and respond to future advancements in the industry.

Objective	Evaluation
Objective 24 Economic sectors are targeted for success	Education and training is an identified sector within the GSRP 2018. The development of a new vocational facility and investment in the educational sector will contribute to the broader success of the economy. It is noted that TAFE NSW play a key role at a national level to drive investment and create opportunities to ensure access is available for further education and training.
Objective 27 Biodiversity is protected, urban bushland and remnant vegetation is enhanced	The existing landscaped character of the site will be retained through integration of the built form with the site topography and vegetation. Retention of existing vegetation was a key factor in the siting of the built form on the eastern boundary of the site. The proposed landscaping scheme will further provide shade, reduce ambient temperatures and mitigate the heat island effect within the site. As demonstrated by the issue of a BDAR waiver, the proposal will not impact the biodiversity values of the site.
Objective 33 A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change	The Sustainability Framework developed for the TAFE NSW CCE seeks identifies an aim for the project of building decarbonization. Refer to further discussion in **Section 7.2**. The provision of bicycle storage and EOTF will further encourage the use of sustainable modes of transport and a shift to achieve an overall reduction in vehicular emissions.
Objective 34 Energy and water flows are captured, used and re-used	The proposed development adopts the 'circular economy' approach to energy and water use as identified in the GSRP 2018 to ensure energy, water and waste are used efficiently and re-used where possible. The sustainability framework discussed in **Section 7.2** demonstrates that this will be achieved through use of high-performance fabric, photovoltaic panels, rainwater collection, geothermal heat pumps and displacement ventilation. The proposal targets 5-Star Green Star as well as required compliance with Section J of the BCA.
Objective 38 Heatwaves and extreme heat are managed	The site's location within the Western Parkland City requires pertinent consideration of increased exposure to rising temperatures and extreme heat waves. The proposal responds to this through cooling the landscape by enhancing site vegetation to mitigate the urban heat island effect, architectural measures such as the large planar roof structure to provide shade to outdoor areas and promote natural cross-ventilation, and energy efficient measures to combat increased usage of mechanical ventilation.

6.1.5. Western City District Plan

The Western City District Plan (**District Plan**) was released in March 2018 and outlines the 20-year vision for the economic, social and environmental growth of the Western District. The District Plan has been prepared to align the Region Plan and the detailed planning controls for local areas.

The site is located within the Western City District (**Western District**), which includes the local government areas of Blue Mountains, Camden, Campbelltown, Fairfield, Hawkesbury, Liverpool, Penrith and Wollondilly.

The District Plan includes several key planning priorities which this proposal will contribute to achieving:

- Planning Priority W3: Providing services and social infrastructure to meet people's changing needs

The District Plan identifies a significant increase in residents aged 20-24 for the Camden, Liverpool, Penrith and Wollondilly LGAs. The provision of a new vocational institution and training in Kingswood will allow these residents to gain and refine skills for employment, and also create social connections with adjacent facilities such as WSU. The identified focus on good design in educational infrastructure is responded to through the proposed high-quality design and ongoing design development and refinement undertaken by the proponent team.

- Planning Priority W8: Leveraging industry opportunities from the Western Sydney Airport and Badgerys Creek Aerotropolis

  The role of TAFE NSW in providing educational facilities that strengthen the educational sector and provide training for the range of essential trade and service jobs to support the District is identified as essential to the District's emergence as a major region. Both the location of the facility in Kingswood and the key critical driver for the need for a skilled construction workforce stems from the significant investment in the Western Sydney Airport and Aerotropolis. The proposal has been developed in direct response to the following:

  > *A number of initiatives will directly address skills shortages which hinder economic growth and support the ability for residents to be engaged with the high level of infrastructure and development investment occurring in the Western City District.*

  The TAFE NSW CCE forms a part of these initiatives and will accommodate up to 3,500 students by 2030 and provide pathways to future employment opportunities and additional economic contribution to the District's economy.

- Planning Priority W14: Protecting and enhancing bushland and biodiversity

  The proposed development supports the broader strategic approach to protect biodiversity in the Western District through retaining and conserving the landscaped character of the site, and ensuring the built form integrates with urban vegetation. While the site is largely free of biodiversity and vegetation impediments, the impact on bushland is managed through reducing tree loss where possible, provision of additional landscaping, and retaining natural habitats on the site such as the existing pond on the site's northern boundary.

- Planning Priority W19: Reducing carbon emissions and managing energy, water and waste efficiently

  The proposal seeks to manage the increased demand for energy and water as a result of a new facility through implementing sustainability approaches within the proposed design and operation. As discussed in the ESD Report at **Appendix V**, the proposal has been designed in response to the three key objectives of resources efficiency, environmental comfort and creating a learning and engaging environment to ensure the ongoing efficient use of resources.

- Planning Priority W20: Adapting to the impacts of urban and natural hazards and climate change

  The climate and natural landscape of the Western District experiences natural hazards that are anticipated to be exacerbated by climate change. Relevant to the site, the ESD Report at **Appendix V** identifies the site is vulnerable to extreme heat temperatures, severe thunderstorms/ hail and extreme winds. In response to the increasing hazard and risk, the proposal incorporates measures to respond to the projected impacts of climate change, as discussed in **Section 7.2**.

Overall, the proposal demonstrates a high level of compliance with the District Plan and will contribute to the strategic objectives and directions identified for the Western District.

6.1.6. Penrith Local Strategic Planning Statement

The Penrith Local Strategic Planning Statement (**LSPS**) was prepared by Council in March 2020 to outline Penrith's economic, social and environmental land use needs over the next 20 years. By 2036, Penrith will accommodate 260,00 residents, representing an increase of 60,000 people over a 16-year period.

The Penrith LSPS identifies the unique location of the Penrith LGA at the centre of the north-south and east-west growth corridors and the opportunity to both contribute to, and leverage upon, the benefits of these economic corridors in enhancing the economic productivity of the LGA. The strengths of the LGA are within the health, education and retail precincts; largely accommodated within the growing centres of Greater Penrith, St Marys and 'The Quarter'. Notably, the Penrith LSPS seeks to increase the productivity of these centres and leverage on the investment in the Western Sydney Airport.

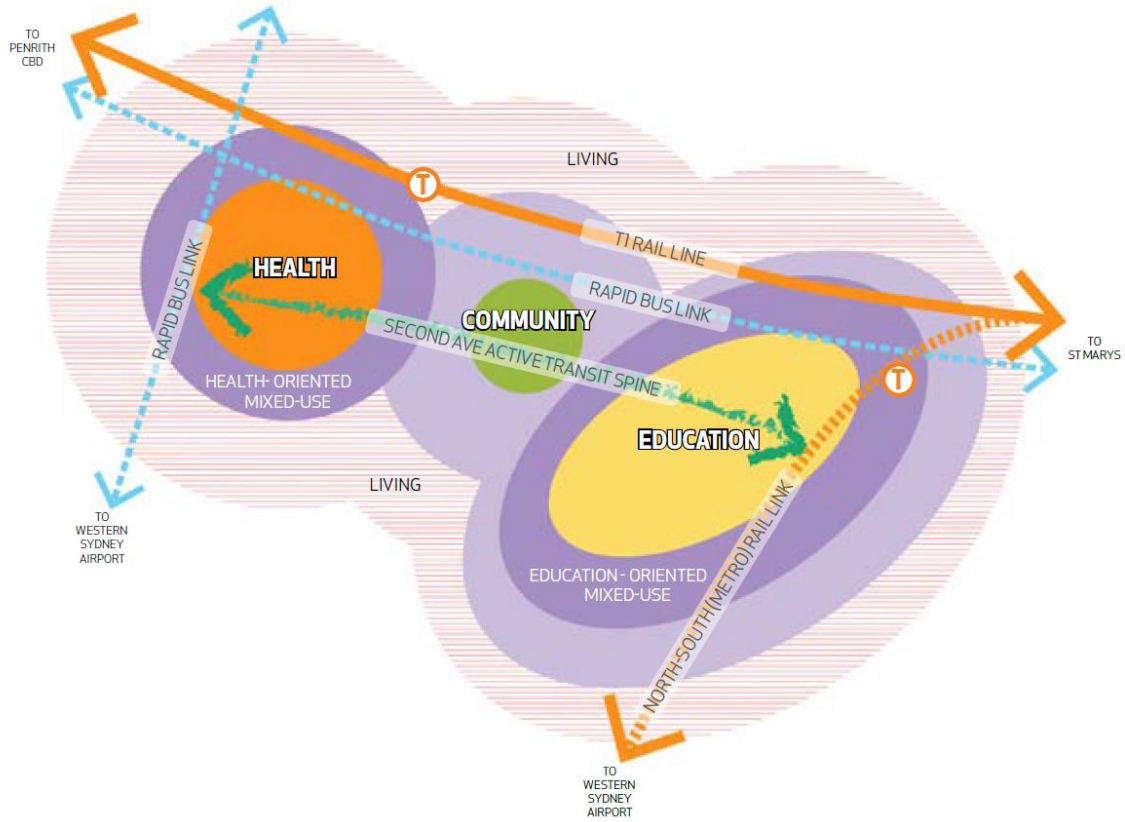
The site's contribution to the educational prominence and strength of 'The Quarter' is a significant benefit of the proposal. The development of a world-class educational facility is in direct response to Planning Priority 13 of the Penrith LSPS and will facilitate increased student enrolments, institutional agglomerations and industry connections. The specialised nature of the proposal accommodating construction courses will enable the precinct to develop industry specialisations that differ from traditional educational hubs - thereby driving economic opportunities and contributing to the reputation of the precinct as a specialised education hub. Refer to further discussion of the alignment of the proposal and contribution to 'The Quarter' in **Section 6.1.7**.

6.1.7. The Quarter Health and Education Precinct Structure Plan

The *Quarter Health and Education Precinct Structure Plan* (**the Quarter Structure Plan**) was released in draft format in November 2019. The Quarter Structure Plan provides a framework for the development of the Quarter to support employment opportunities specifically for the education, health and research industries, and to improve connectivity to the broader Western City District.

The Quarter is a 345-hectare precinct that is envisaged to become an "*international destination for investment and excellence in health care, medical research, world-class education and related technology*". When fully developed, the Quarter is anticipated to accommodate 25,000 knowledge jobs, 15,000 homes and education for up to 25,000 students. A key theme is to develop a centre of excellence in education through continued investment in the two major health and education anchors – Nepean Hospital and the WSU/ TAFE NSW campuses, as illustrated in the core principles plan illustrated in **Figure 12.**

Figure 12 The Quarter Precinct – Key Principles



Source: The Quarter Precinct Plan

The proposal directly responds to the objectives and principles of the Quarter Structure Plan through the delivery of the TAFE NSW CCE, which will improve, diversify and increase the educational offering of the Quarter. The delivery of the TAFE NSW CCE within the existing Kingswood campus strengthens this educational anchor and will create synergies with the adjacent WSU. This includes both physical and institutional connections created by the siting of the proposed development, visual sightlines and infrastructure connectivity. Further, the identification of the TAFE NSW CCE as a place of excellence will allow the Quarter to develop as a nationally recognised centre of education, health and research in direct accordance with the precinct vision.

6.1.8. Additional Policies

An assessment of the proposal's compliance with additional policies is outlined in **Table 7**.

Table 7 Compliance assessment – additional policies

Policy	Evaluation
GANSW Better Placed: An integrated design policy for the built environment of NSW	The *Better Placed Policy* (**Better Placed**) was released in September 2017 by the Government Architect NSW (**GANSW**), to create a clear approach to ensure good design outcomes are achieved to deliver desired architecture, public places and environments throughout NSW. The design of the project has been subject to an extensive review process involving a collaborative and cyclical design process that has result in a more refined development proposal. This iterative process has involved formal engagement with the SDRP in December 2020, as well as a subsequent session to held on 17 February 2021. Refer to further discussion in **Section 7.1.3** on how the proposal has responded to key matters of feedback given by the SDRP. The detailed design of the project accommodates a built form that is sustainable, functional, sensitive to its context and visually distinctive as encouraged by objectives of Better Placed.
GANSW Draft Greener Places Guide	The draft Greener Places Guide (**draft Greener Places**) was prepared by the GANSW to provide information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The draft guide was placed on public exhibition from 25 June to 28 August 2019, with this feedback utilised to inform the new Design and Place SEPP being developed in 2020-2021.
GANSW Draft Connecting with Country Guide	The draft Connecting with Country Guide (**draft Country Guide**) was prepared by the GANSW in November 2020 and provides a draft framework for developing connections with Country to inform the planning, design and delivery of built environment projects. The draft Country Guide encourages place-led design approaches to support a strong and vibrant Aboriginal culture in the built environment. The project seeks to align with Aboriginal values through cultural awareness and implementation of tangible responses to the Indigenous history of the site. This will be achieved through incorporation of Aboriginal art in the site landscaping, with an option to provide a cultural walk along the internal pathway leading to the building. Engagement with the Aboriginal community will occur during the detailed design development of this initiative. Refer to further discussion in the Public Art Indicative Proposal at **Appendix KK.**
Healthy Built Environment Checklist	The Healthy Built Environment Checklist was released by the NSW Ministry of Health in 2020 and supersedes the previous Healthy Urban Development Checklist (2009). It is used to assess built environment factors that impact on health. The proposal responds to the 11 checklist themes as follows: ▪ The TAFE NSW CCE will promote physical activity and opportunities for walking and cycling through the retention of a large portion of open field space

Policy	Evaluation
	on the site and provision of well-designed and connected walking and cycling paths between site buildings. ▪ The site is located within proximity of the existing Kingswood and Werrington railway stations, encouraging future students to utilise public transport services and reduce private car usage. ▪ The proposal provides access to appropriate training for the construction sector, improving the range of employment opportunities and reducing the unemployment rate. ▪ The TAFE NSW CCE has been designed with consideration of crime prevention and a sense of security for future students and employees. The proposal does not increase environmental hazards or potential health effects, as discussed in **Section 7**.
Sydney's Cycling Future 2013	The Sydney's Cycling Future 2013 was released by NSW Government in December 2013 to facilitate improved bicycle networks. The proposal will deliver cycle and pedestrian paths that integrate with existing pathways within the site and will similarly provide 26 bicycle spaces. This will encourage students and employees to use sustainable methods of transport to the site.
Sydney's Walking Future 2013	Sydney's Walking Future 2013 was released by the NSW Government in December 2013 and seeks to create a culture of walking for transport by promoting walking as a viable and attractive transport choice. The proposal includes a highly activated ground plane with supporting pedestrian pathways that connect to existing internal site connections. This connectivity will increase walking and pedestrian permeability, both for students accessing various buildings within the TAFE NSW site and encouraging students and employees to walk to the site from surrounding destinations. The public domain surrounding the site will be monitored by passive surveillance methods, lighting and clear linkages to improve pedestrian safety and minimise opportunities for crime in the walking network.
Sydney's Bus Future 2013	Sydney's Bus Future was released by the NSW Government in December 2013. The Plan seeks to shape the bus network to meet customer needs and the four customer objectives of convenience, frequency and reliability, connectivity and comfort. The site benefits from direct proximity to bus stops on the western boundary on O'Connell Street, which services the 770, 775, 776 and 835 bus routes. The location of a new educational facility within proximity to bus services demonstrates an integrated approach to transport and land use planning which will encourage usage of public transport.
CPTED Principles	The development responds to the four main principles of CPTED– natural surveillance, access control, territorial reinforcement and space management. As discussed in the CPTED Report at **Appendix O** and in **Section 7.1.4**, the design of the proposal promotes casual surveillance of the public domain and campus, activates the surrounding area and provides appropriate security measures to ensure the safety of students and broader public.

6.2. STATUTORY PLANNING FRAMEWORK

6.2.1. Environmental Planning and Assessment Act 1979

The EP&A Act establishes the assessment framework for SSD, and in Section 4.36 indicates that a state environmental planning policy may declare a development to be SSD. The project is subject to the Minister's consent under section 4.5(a) of the EP&A Act if the IPC has not been declared to be the consent authority for the development by an environmental planning instrument.

As the proponent is a public authority, the application is also categorised as a Crown development application under Division 4.6 of Part 4 of the EP&A Act. The application therefore benefits from the relevant assessment and determination provisions under this division, which recognises the critical role Crown development plays in providing essential community services and employment opportunities.

Table 8 identifies the matters for consideration under section 4.15(1) EP&A Act that apply to SSD in accordance with section 4.40 EP&A Act. The table represents a summary for which additional information and consideration is provided for in **Section 7** and relevant appendices or other sections of this report and the application, referenced in the table.

Table 8 EP&A Act - Section 4.15(1) matters for consideration

Section 4.15(1) Consideration	**Evaluation**
(a)(i) any environmental planning instrument	Satisfactorily complies. Refer to further consideration of relevant EPIs in **Section 6.2.**
(a)(ii) any proposed instrument	Satisfactorily complies. Refer to further consideration of relevant EPIs in **Section 6.2.5.**
(a)(iii) any development control plan	Under clause 11 of the SRD SEPP development control plans (**DCPs**) do not apply to SSD. However, consideration has been given to the controls under the Penrith Development Control Plan 2014 (**Penrith DCP**), were relevant, at **Section 7.**
(a)(iii) any planning agreement	N/A
(a)(iv) the regulations	The application satisfactorily meets the relevant requirements of the EP&A Regulation, including the procedures relating to applications (Part 6 of the EP&A Regulation), public participation procedures for SSD and Schedule 2 of the EP&A Regulation relating to EIS.
(b) the likely impacts of that development,	The likely impacts of the development have been considered in **Section 6** and appropriately mitigated and managed as outlined in **Section 7.**
(c) the suitability of the site for the development,	The site is suitable for the development as discussed in **Section 6.11.**
(d) any submissions made in accordance with this Act or the regulations,	Consideration will be given to submissions received during the public exhibition period.
(e) the public interest.	The proposal is in the public interest as discussed in **Section 6.12.**

6.2.2. Environmental Planning and Assessment Regulation 2000

Section 78(8A) of the EP&A Act requires that all development applications for SSD be accompanied by an EIS prepared by or on behalf of the proponent in the form prescribed by the EP&A Regulations. Schedule 2 of the EP&A Regulations provides that environmental assessment requirements will be issued by the Secretary of the DPIE with respect to the proposed EIS.

This EIS has been prepared to address the requirements of Schedule 2 of the EP&A Regulations and the SEARs issued for the project.

6.2.3. Biodiversity Conservation Act 2016

The purpose of the *Biodiversity Conservation Act 2016* (**Biodiversity Act**) is to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.

Section 7.9(2) of the Biodiversity Act provides the following in relation to an application for SSD:

> *"Any such application is to be accompanied by a biodiversity development assessment report unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values."*

A BDAR Waiver was submitted to the DPIE on 15 January 2021 (**Appendix H**). This waiver was granted by Environment, Energy and Science as delegate of the Environment Agency Head on 19 January 2021, and subsequently the DPIE as delegate of the Planning Agency Head on 1 February 2020.

6.2.4. State Environmental Planning Policies

6.2.4.1. State Environmental Planning Policy (State & Regional Development) 2011

The SRD SEPP has the purpose of identifying development that is SSD, state significant infrastructure (including critical) and regionally significant development. Clause 15 of Schedule 1 of the SRD SEPP indicates the following development is SSD:

15 Educational establishments

> *(1) Development for the purpose of a new school (regardless of the capital investment value).*
>
> *(2) Development that has a capital investment value of more than $20 million for the purpose of alterations or additions to an existing school.*
>
> ***(3) Development for the purpose of a tertiary institution (within the meaning of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017), including associated research facilities, that has a capital investment value of more than $30 million.***

The proposed development is for a tertiary institution and has a capital investment value of $75,139,463, and as such can be declared SSD under section 4.5 of the EP&A Act. Refer to QS Statement at **Appendix C.**

6.2.4.2. State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (**ISEPP**) aims to facilitate the effective delivery of infrastructure across NSW. The ISEPP identifies matters for consideration in the assessment of development adjacent to particular types of infrastructure development.

Division 17

The proposed access to the site via O'Connell Street is located 350m south of the intersection with the Great Western Highway, a State classified road. Referral to the RMS under section 104 of the ISEPP 'traffic generating development' is therefore required should the proposed development generate 200 or more motor vehicles per hour. The traffic generation of the existing and proposed development has been assessed in the Traffic Impact Statement prepared by Traffix and included at **Appendix O.**

The proposal will generate an additional 218 vehicular tripes during the morning network weekday peak (7:45am – 8:45am). Accordingly, the SSDA will be referred to TfNSW (RMS) for notice and will consider the relevant matters owutlined in clause 104 (3)(b).

6.2.4.3. State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017 (**Education SEPP**) aims to facilitate the effective delivery of educational establishments and early education and care facilities across the State.

Part 6

Part 6 of the Education SEPP applies to TAFE NSW establishments and as such has been considered in the preparation of this SSDA. Clause 52 includes requirements for TAFE NSW developments permitted with consent. An assessment of the development against clause 52 is provided at **Table 9.**

Table 9 Education SEPP - Clause 52 matters for consideration

Clause 52 Consideration	Evaluation
(1) Development for the purpose of a TAFE establishment may be carried out by any person with development consent on land in a prescribed zone.	The TAFE NSW Kingswood Campus is located on land zoned SP2 Infrastructure, which is a prescribed zone.
(2) Development for a purpose specified in clause 56(1) may be carried out by any person with development consent on land within the boundaries of an existing TAFE establishment.	Not Applicable. The development is not to be carried out as 'complying development'.
(3) Development for the purpose of a TAFE establishment may be carried out by any person with development consent on land that is not in a prescribed zone if it is carried out on land within the boundaries of an existing TAFE establishment.	Not applicable.
(4) A TAFE establishment (including any part of its site and any of its facilities) may be used, with development consent, for the physical, social, cultural or intellectual development or welfare of the community, whether or not it is a commercial use of the establishment.	The proposed development will further the physical, social, cultural and intellectual development of the community through the provision of a new educational facility. However, the proposal does not seek to provide areas for public usage.
(5) Subclause (3) does not require development consent to carry out development on land if that development could, but for this Policy, be carried out on that land without development consent.	Not applicable.
(6) Development for the purpose of a centre-based child care facility may be carried out by any person with development consent on land within the boundaries of an existing TAFE establishment.	Not applicable. A centre-based childcare facility is not proposed.
(7) Development for the purpose of residential accommodation for students that is associated with a TAFE establishment may be carried out by any person with development consent on land within the boundaries of an existing TAFE establishment.	Not applicable. Residential accommodation is not proposed.

Part 7

Clause 57 of the Education SEPP applies to development for new educational establishments with 50 or more students on a site with direct vehicular or pedestrian access to any road. The consent authority must therefore notify the RMS and consider the matters under clause 57(3). An assessment of these provisions is provided in **Table 10.**

Table 10 Education SEPP – Clause 57 matters for consideration

Clause 57 Consideration	**Evaluation**
(a) any submission that RMS provides in response to that notice within 21 days after the notice was given (unless, before the 21 days have passed, RMS advises that it will not be making a submission), and	Submissions made by TfNSW will be considered by the DPIE and responded to where necessary.
(b) the accessibility of the site concerned, including— (i) the efficiency of movement of people and freight to and from the site and the extent of multi-purpose trips, and (ii) the potential to minimise the need for travel by car, and	The site is located within a highly accessible location with access provided to the Great Western Highway from O'Connell Street. The availability of access to the site from both the existing O'Connell Street Gate 1 and Gate 2, as well as through the adjacent WSU Werrington South internal road access (during construction) demonstrates the suitability of the site to accommodate the proposal. The site also benefits from direct access to bus stops located on O'Connell Street, as well as a shuttle bus service providing free connections for students and employees to Kingswood Station.
(c) any potential traffic safety, road congestion or parking implications of the development.	The proposed development will not have an adverse impact on traffic safety, road congestion or on-street parking. As discussed in the Transport and Accessibility Impact Assessment (**Appendix S**) the construction and operation of the proposal will not generate any potential traffic safety issues, road congestion or parking implications. Refer to further discussion in **Section 7.5.**

Schedule 1

Schedule 1 of the Education SEPP outlines exempt development provisions related to education applications.

Identification, directional, community information or safety signs are identified as exempt development where located within the property boundary, have a surface area of less than 8 square metres, and have a distance between ground level (existing) and bottom edge of sign of 6m. Signage also cannot involve electronic signage or moving displays and must be controlled in accordance with AS 4282–1997, Control of the obtrusive effects of outdoor lighting.

This application seeks development consent for the installation of ten signage zones. As such, the exempt development provisions will not be relied upon for installation of this signage. Refer to further assessment in **Section 6.2.4.5.**

6.2.4.4. State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No 55 - Remediation of Land (**SEPP 55**) is the primary environmental planning instrument guiding the remediation of contaminated land in NSW and requires a consent authority to consider whether the land is contaminated, and if so, whether the land will be remediated before the land is used for the intended purpose.

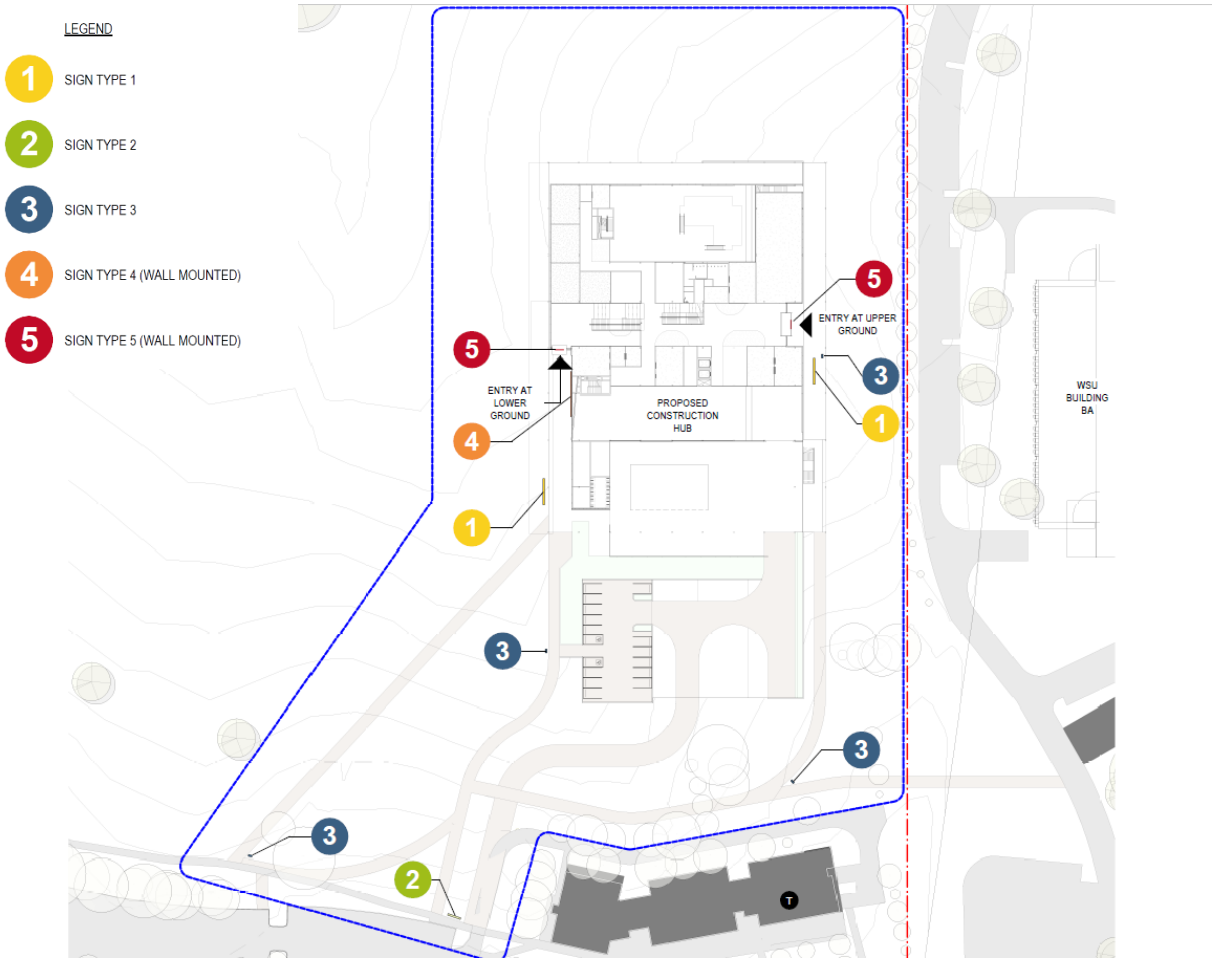
In accordance with the requirements of SEPP 55 and SEARs Item 13, various geotechnical and environmental investigations have been undertaken to address contamination across the site. As discussed in the Preliminary Site Investigation (**PSI**) at **Appendix X**, JBS&G confirm the site does not have any history for contaminating land uses and the site is not identified on the NSW EPA contaminated land register. Whilst historical review and site observations identified a low concentration of contaminants of potential concern (**COPC**) in soil samples, these were not identified at levels posing an unacceptable risk to human or ecological receptors. As these contaminants are identified in solid forms, the potential for migration is considered low. The reports conclude that as the risk of contamination is low, the site is considered suitable for the proposed educational facility. Refer to further discussion in **Section 7.7.1**.

6.2.4.5. State Environmental Planning Policy No. 64 – Advertising and Signage

State Environmental Planning Policy No. 64 – Advertising and Signage (**SEPP 64**) aims to regulate signage to ensure that signage is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations, and is of high-quality design and finish.

The proposal seeks consent for installation of eleven building identification and wayfinding signage panels as illustrated in **Figure 13**, in addition to a identification signage panel **adjacent to Gate 2** on the O'Connell Street entrance.

Figure 13 Proposed signage zones



Source: Gray Puksand

The signage typology proposed includes:

- **Signage type 1**: 'TAFE' at-grade signage panel adjacent to the eastern and western building elevations and on the western entrance at Gate 2 with an approximate height of 1.95m and width of 7.84m.
- **Signage type 2:** Directional signage pylon located on the southern boundary of the site adjacent to existing Building T with an approximate height of 3.66m and a width of 0.78m.
- **Signage type 3**: Directional signage pylon located adjacent to the car park and internal access road with an approximate height of 3m and a width of 0.57m.
- **Signage type 4:** 'Construction Centre of Excellence' wall-mounted façade signage on the western elevation above the entry doors, with an approximate height of 0.05m and width of 16.36m.
- **Signage type 5**: 'Construction Centre of Excellence' wall-mounted façade signage on the eastern and western elevations above primary and secondary entries, with an approximate height of 0.015m and a width of 2.95m.

As discussed in **Section 6.2.4.3**, the provision of identification signage within the boundary of an education facility is exempt development. Notwithstanding this, an assessment of the proposal against the SEPP 64 objectives and the Schedule 1 assessment criteria is provided in **Table 10.**

Table 11 SEPP 64 – Schedule 1 matters for consideration

Schedule 1 Consideration	Evaluation
1 Character of the area • Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located? • Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	The proposal is compatible with the existing character of the area and is not expected to have any adverse impacts. The proposed signage zones relate to the TAFE NSW campus and as such is consistent with the existing TAFE NSW signage theme within the Kingswood site.
2 Special areas • Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The site is not located within an environmentally sensitive area and does not contain a heritage item. The signage zones are proposed to be located a sufficient distance away from the 'Milestone' heritage item adjacent to the northern boundary of the site. The signs will not detract from the amenity or visual quality of the surrounding area.
3 Views and vistas • Does the proposal obscure or compromise important views? • Does the proposal dominate the skyline and reduce the quality of vistas? • Does the proposal respect the viewing rights of other advertisers?	The signs are proposed to be free-standing and set within the proposed landscaping, and also situated on the façade of the proposed building. The proposal will therefore not obscure or compromise any important views. Due to the varying topography of the site, the signs will be integrated with the landscape of the site and as such will not dominate the skyline or reduce the quality of vistas. For the façade signage zones, these will be located beneath the parapet of the building.

Schedule 1 Consideration	Evaluation
	The signs are not proposed in proximity to any other advertisements and would therefore not impact on the viewing rights of other advertisers.
4 Streetscape, setting or landscape • Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape? • Does the proposal contribute to the visual interest of the streetscape, setting or landscape? • Does the proposal reduce clutter by rationalising and simplifying existing advertising? • Does the proposal screen unsightliness? • Does the proposal protrude above buildings, structures or tree canopies in the area or locality? • Does the proposal require ongoing vegetation management?	The signs are modest for the size of the site and would not detract from the streetscape or setting. The façade signage zones are consistent with the large proportion of the eastern and western elevations on which they will be located. The proposed signs will be of a high quality in modern materials, consistent with the building, and as such will complement the built form and broader TAFE NSW campus. The signs are simple in design (with a key purpose to provide building identification and wayfinding assistance) and would not result in visual clutter. There are currently no signage panels within the area of the site proposed. The panel signs are free-standing and would not protrude above any buildings, structures or tree canopies, and the façade signs are located beneath the building parapet. No ongoing vegetation management is needed.
5 Site and building • Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located? • Does the proposal respect important features of the site or building, or both? • Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The signs are compatible with the scale and proportion of the proposed development. The proposed height and width of signage types 4 and 5 (façade signage) has been defined in accordance with the proportion of the eastern and western elevations, and similarly corresponds with the dimensions of the pedestrian entries on these elevations. The scale of the wayfinding panels is consistent with the height of pedestrians to improve readability. The purpose of the signs is to identify the site/building and assist with way finding. All signage types are visually interesting and incorporate the TAFE NSW logo.
6 Associated devices and logos with advertisements and advertising structures • Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Up-lighting is proposed for signage typology 1. This lighting is designed to fall directly upon the sign to ensure there is no associated light spill impacts. The 'TAFE NSW' logo is proposed on signage types 1, 2 and 3. This is consistent with the use of the logo within the broader site and the purpose of the site as a TAFE NSW facility.

Schedule 1 Consideration	Evaluation
7 Illumination • Would illumination result in unacceptable glare? • Would illumination affect safety for pedestrians, vehicles or aircraft? • Would illumination detract from the amenity of any residence or other form of accommodation? • Can the intensity of the illumination be adjusted, if necessary? • Is the illumination subject to a curfew?	The building identification sign (Signage type 1) would be up-lit. The lighting would be directed to ensure there will be no adverse impacts on the surrounding area. It is noted the location of the sign on the western façade of the building ensures this sign will be oriented inwards to the site and will have no direct interface with the surrounding receivers. Accordingly, it is not considered a curfew is necessary given the up-lighting will have no adverse amenity impacts and will not be visible from the surrounding area.
8 Safety • Would the proposal reduce the safety for any public road? • Would the proposal reduce the safety for pedestrians or bicyclists? • Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The signage is located wholly within the site and would not reduce safety or obscure sightlines from public areas. The proposed signage is set back from the roadway and would not reduce road safety.

6.2.5. Draft State Environmental Planning Policies

6.2.5.1. Draft State Environmental Planning Policy (Remediation)

The *Draft State Environmental Planning Policy (Remediation of Land)* (**Draft Remediation SEPP**) is the proposed new land remediation SEPP set to replace SEPP 55. Public exhibition of the 'explanation of intended effect' for the Draft Remediation SEPP and draft planning guidelines was completed in January 2018.

The draft Remediation SEPP will retain the objectives of SEPP 55 and reinforce the successful aspects of the framework. In terms of relevant changes applicable to development applications clause 7 of SEPP 55 is proposed to be incorporated into the Draft Remediation SEPP. In addition, the list of potentially contaminating activities and the purpose of a PSI and DSI will be integrated into clause 7 of the Draft Remediation SEPP.

As outlined in **Section 6.2.4.4**, contamination investigations have been undertaken by JBS&G which confirm the suitability for the site for the proposed educational use.

6.2.5.2. Review of State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017

A number of amendments to the Education SEPP are proposed by the DPIE to improve the operation, efficiency and usability of the SEPP and supporting documents. The proposed changes were outlined in the Explanation of Intended Effect (**EIE**) and were on exhibition from 20 November until 17 December 2020.

An overview of the proposed amendments to the Education SEPP (where relevant) and an assessment against the proposed development is provided in **Table 12.**

Table 12 Education SEPP proposed amendments – matters for consideration

Proposed change	Evaluation
Clarification of terms in vegetation clearing clause	This EIS seeks development consent for the removal of 31 trees. This will not be undertaken as 'development permitted without consent' and the proposed amendment is not relevant to the proposal.
Bush fire prone land	The site is considered as bushfire prone land as the site partially contains the 100-metre buffer zone from Category 1 Vegetation and 30 metre buffer zone from Category 2 Vegetation in the site's south-western corner. The proposed amendments to clause 30(3) and clause 14(1) of Schedule 3 do not apply to applications for tertiary facilities seeking development consent and is therefore not relevant to the proposal.
Enabling student housing on sites with existing educational establishments	The application does not seek consent for student housing.
Directional signage and information boards	The ten signage zones proposed in this application do not rely on the exempt development provisions of Schedule 1 or subclause 38 of the Education SEPP. The proposed removal of subclause 38 are not applicable.
Innovation spaces/hubs within existing tertiary institutions	The proposal does not seek consent for the development of an innovation hub within the Kingswood campus. However, it is noted the proposed facility will similarly facilitate relationships between tertiary institutions and industry partners to contribute to the diversification of the economy and future employment pathways for students.
Amendmetns to complying development provisions	This application seeks SSD development consent for the proposed development. The proposed amendments to complying development provisions are not applicable.

6.2.6. Penrith Local Environmental Plan 2010

The *Penrith Local Environmental Plan 2010* (**Penrith LEP 2010**) is the applicable local environmental plan pertaining to the site. Assessment against the relevant considerations of the Penrith LEP 2010 is provided below.

Zoning

The site is zoned SP2 infrastructure – Educational Establishment. This SSDA seeks consent for a '*tertiary instruction'*, which is a form of '*educational establishment*' as defined accordingly:

> *educational establishment means a building or place used for education (including teaching), being—*
>
> *(a) a school, or*
>
> ***(b) a tertiary institution, including a university or a TAFE establishment, that provides formal education and is constituted by or under an Act.***

Development for the purposes of a '*educational establishment'* is permitted with consent in the zone and is consistent with the objectives to provide for educational infrastructure. The proposal will satisfy the educational needs of students in the area and provides employment that can maximise public transport

patronage and encourage walking and cycling. The proposal will also provide a much-needed service to respond to the construction boom within the Western Sydney precinct.

Clause 4.3 – Height of Buildings

There is no height of building development standard that applies to the site.

Clause 4.4 – Floor Space Ratio

There is no floor space ratio development standard that applies to the site.

Clause 5.10 – Heritage Conservation

The site is not identified as a local heritage item in Schedule 5 of the Penrith LEP 2010, however is in proximity to a number of heritage listed items as follows:

- Item 670 – Teacher's residence (former) located at 56 Second Avenue, Kingswood.
- Item 860 – Milestone located on the Great Western Highway.
- Item 315 – "Werrington Park House", garden and poplar avenue located at 653-729 Great Western Highway.

The consent authority is required to consider the effect of the proposed development on the heritage significance of items that are within the vicinity of heritage items. Accordingly, a Heritage Impact Statement has been prepared by Urbis and is provided at **Appendix H** and addressed in **Section 7.4**.

In summary, there are no heritage items located in such proximity that would have a critical visual or physical interface with the subject site. The closest heritage item is the 'Milestone' heritage item located to the immediate north of the subject site on the Great Western Highway. Development within the subject site will have no adverse impact on the significance of this Milestone heritage item which will retain its relationship with the Great Western Highway and will not be visually or physically dominated by the proposal.

The broader vicinity heritage items are located at such a distance from the subject site and the location of the proposed works, that there will be no visual or physical adverse heritage impacts on these items as a result of the proposal.

Clause 7.2 – Flood Planning

Clause 7.2 of the Penrith LEP 2010 requires consideration of potential flood risk to life and property and detrimental flooding impacts on the natural environment as a result of development. The site is not identified within the Penrith 'Clause Application Map' nor is it located at or below the flood planning level.

Notwithstanding this, in accordance with the SEARS, consideration of flooding impacts of the proposed development has been undertaken. This is discussed in the Flooding Report at **Appendix CC** and in **Section 7.6.1.**

Clause 7.4 – Sustainable Development

The proposed development has been sited, designed and managed in accordance with the principles of ecologically sustainable development (**ESD**) based on a 'whole of building' approach in accordance with clause 7.4 of the Penrith LEP 2010.

A Sustainability Framework has been developed by Northrop as outlined in the ESD Report at **Appendix V.** The framework demonstrates how the proposal considers and reflects national best practice sustainable building practices to improve environmental performance and reduce ecological impact. In addition to this framework, the proposed development targets:

- 5 Star Green Star Design & As Built v1.3 rating, considered Australian 'Best Practice'.
- Compliance with mandatory Section J targets.

Refer to further discussion in **Section 7.2.**

Clause 7.6 – Salinity

The proposed development considers the effects of rising salinity and the impact on natural hydrological systems through the minimisation of land use disturbance and appropriate land use management.

An assessment of the site salinity is provided in the Salinity Assessment and Management Plan at **Appendix Z** and discussed in **Section 7.7.2**. Subject to implementation of the recommendation measures, the effects of rising salinity will not adversely impact the operation of the proposed development.

Clause 7.7 – Servicing

The objective of Clause 7.7 is to ensure the development of land reflects the availability of services.

As discussed in the Utilities and Infrastructure Management Plan (**Appendix GG**) and **Section 7.8**, appropriate provision for site servicing including connection to water, waste and sewer management has been considered in the preparation of this SSDA package. The proposed development seeks consent for augmentation of physical infrastructure and utilities as required, including the provision of a 1000kVA dedicated substation, upgrade to the existing water meter to 150mm and augmentation of the gas and piping system. This will satisfactorily service the development without impact on surrounding land.

6.2.7. Penrith Development Control Plan 2014

The Penrith DCP provides detailed planning provisions relating to the Penrith LGA. In accordance with clause 11 of the SRD SEPP, the provisions of development control plans do not apply to SSD applications. Notwithstanding this, the proposal has had consideration to the relevant provisions of the Penrith DCP as discussed in **Section 7.**

6.2.8. Werrington Enterprise Living and Learning Precinct Development Contributions Plan

The Council Section 7.11 Werrington Enterprise Living and Learning Precinct Development Contributions Plan (**WELL Contributions Plan**) is the applicable development contributions plan for the site. The site is located within the WSU and TAFE South Werrington sub-precinct.

Non-residential development in the WSU & TAFE South Werrington sub-precinct is required to contribute towards the provision of open space and recreation facilities included in the WELL Contributions Plan. Contributions are determined on a per hectare of net developable land basis.

However, section 2.5.1 of the WELL Contribution Plan identifies the following:

> *Council may consider exempting developments, or components of developments from the requirement for a contribution. For such claims to be considered, a development application will need to include a comprehensive submission arguing the case for exemption.*

This application hereby constitutes a submission justifying the exclusion of the proposed development from paying section 7.11 contributions under the WELL Contributions Plan.

In addition to this, Section 7.13(2)(a) of the EP&A Act identifies the following:

> *(2) However, in the case of a consent authority other than a council—*
>
> *(a) the consent authority may impose a condition under section 7.11 or 7.12 even though it is not authorised (or of a kind allowed) by, or is not determined in accordance with, a contributions plan, but*
>
> *(b) the consent authority must, before imposing the condition, have regard to any contributions plan that applies to the whole or any part of the area in which development is to be carried out.*

The above provision extends to the waiving or reduction of the contribution that would otherwise be applied by a consent authority. This further demonstrates the Minister (or their delegate) can suitably exclude the proposed development from the payment of section 7.11 contributions under the WELL Contributions Plan.

Development for the purposes of infrastructure

The WELL Contributions Plan identifies examples of the type of development that Council would exclude from being subject to contributions under the plan. This includes the provision of "infrastructure" as follows:

> *Development for the purposes of infrastructure provided or to be provided under this Plan or another contributions plan*.

While the proposed use is defined as an 'educational establishment' and thus this provision does not specifically apply, it nevertheless adds weight to the consideration for an exemption to apply, given:

- This specific exemption reference has been directly translated from the WELL Contributions Plan, which was prepared in 2009.
- At the time the 2009 was introduced, the Infrastructure SEPP would have included 'tertiary institutions' within the meaning of 'Infrastructure Facility' (Universities and TAFE facilities have since been excised from the Infrastructure SEPP by the introduction of the Education SEPP).

The proposed facility will increase the quantity and amenity of educational infrastructure provided within the TAFE NSW Kingswood campus. There is a strong merit justification for the consideration of the proposed facility as a form of public infrastructure and such be exempt from the payment of contributions in accordance with the WELL Contribution Plan.

TAFE NSW as the Crown and Public Education Institution

A TAFE establishment is recognised as the Crown by virtue of clause 226 of the EP&A Regulation. Section 4.33 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 applicant (TAFE NSW) or the Minister.

TAFE NSW and its functions are inherently of a public nature and will provide for skills development and training for the Penrith community and to the broader public. The proposed CCE is a significant contribution to the vocational offering of TAFE NSW and will improve job opportunities and employment pathways for future students.

Other Public Amenities Provided by the University on Campus

The exemption from payment of contributions relating to open space, recreation and community facilities as per Section 1.4 of the WELL Contributions Plan is considered appropriate, as the proposal will provide significant public benefit, in addition to those already provided on the broader TAFE NSW Kingswood site.

The public benefits generated by this proposal include:

- A high-quality educational building which provides practical learning spaces, general learning spaces and staff workspaces.
- Provision of industry engagement spaces within the facility including an exhibition space, events space and collaborative workshops to encourage and facilitate relationships between TAFE NSW students and industry.
- Landscaping, WSUD, irrigation, internal vehicular access and pedestrian pathways within the site.
- Integration of public art, with the opportunity for a 'cultural walk' to reference the Indigenous history of the site.
- Ecological sustainable development including photovoltaic panels (including both rooftop panels and integrated into the building fabric), rainwater collection, geothermal heat pumps and displacement ventilation.
- On the broader campus, the library would ordinarily accommodate public users, however in the current COVID climate restrictions have limited this usage.

The provision of this infrastructure and services will reduce the demand on public amenities outside of the Kingswood campus. Taking into account the significant public benefits which the proposed development, the economic contribution of the TAFE NSW facility to the local area and the presence of TAFE NSW generally, justifies that an exemption is considered appropriate.

Crown Applications – Department of Planning Circular D6

There has been further historical guidance around this matter contained in the Department of Planning Circular D6 "Crown Development Applications and Conditions of Consent". The circular sets out the reasons why Crown developments should be able to seek exemptions from contributions payments.

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. The entire purpose of the proposed CCE is to provide additional vocational facilities for the community. The application responds to a clear demand for educational facilities.

As the leading vocational training establishment TAFE NSW no longer has the capacity to accommodate the course demand within existing campuses, or the anticipated student enrolment growth of 25% between 2020 and 2030. As the proposed development is integral to supporting TAFE NSW's function as a vocational establishment it clearly satisfies and is consistent with the Department's Circular D6 and identification of exemptions for educational services.

The Circular provides that for Educational Services, contributions should only be levied towards funding for drainage (where the proposal is likely to increase site runoff or add to drainage infrastructure needs) or local traffic management at the site entrance, if required. This EIS has illustrated that neither of these are required.

As stated in Circular D6:

> *"Crown Activities providing a public service or facility lead to significant benefits for the public, in terms of essential community services and employment opportunities. Therefore, it is important that these essential community services are not delayed by unnecessary disputes over conditions of consent. These activities are not likely to require the provision of public services and amenities in the same way as developments undertaken with a commercial objective."*

Taking into account that the proposal will not result in increased runoff or the need for roadworks to the site entrance coupled with the significant public benefits which the proposed development, and the presence the TAFE NSW generally provides, it is considered that the contribution requirement should not apply in this circumstance.

7. ENVIRONMENTAL IMPACT ASSESSMENT

7.1. BUILT FORM AND URBAN DESIGN

The following section responds to SEARs Item 4 which requires this EIS to assess the proposal with respect to its integration with the surrounding context. This section includes an assessment of the rationale for site selection, as well as the height, bulk and scale of the proposed development in the context of the broader TAFE NSW Kingswood campus and adjacent institutional uses.

7.1.1. Site Selection and Urban Integration

The TAFE NSW CCE is located on the eastern boundary of the site and has been designed to 'sit within' the existing site topography, to respond to the physical and amenity constraints of the site and integrate with the adjacent uses.

In developing the location of the building within the broader TAFE NSW Kingswood campus, Gray Puksand conducted a comprehensive site and context analysis to identify constraints and opportunities. As documented in the Architectural Design Report at **Appendix F** and discussed in **Section 2.2.2,** several siting options have been explored to provide maximum connectivity with existing infrastructure, visual prominence and economical constructability. These options have been informed by consultation with relevant stakeholders within TAFE NSW and specialist input from the consultant team.

The siting of the proposed facility is considered suitable and the best outcome for the site as it achieves the following:

1. **Integration with Western Sydney University**. The location of the building on the eastern side of the campus will promote and enhance future training and business synergies with the adjacent WSU Werrington site. This is a critical connection and a key driver for the proposal. As discussed in **Section 3.1.4**, the WSU Werrington North and South campuses are the subject of a master planning process in the future and as such the proposal responds to the future uses and character of the site, rather than the detailed design and form of current buildings.
2. **Continuation of existing campus 'spines' and integration with future campus development**. The location of the building will also offer opportunities for campus expansion and 'infill' as future educational needs arise and presents an alignment with the strong existing campus axis. The orientation of the building footprint generally responds to the diagonal east-west spines established on the site as well as the perpendicular spine of the eastern boundary. Refer to further discussion in **Table 13.**
3. **Creation of a 'destination' building and enhance visual exposure to Great Western Highway**. The proposed location will establish of a sense of arrival and presence on the eastern side of the Kingswood campus. This will signify the arrival to the strategic centre and the 'Quarter' educational and health precinct.
4. **Optimise view corridors**. The location of the building on a high-ridge point capitalises on views towards the Blue Mountains, as well as views towards the east of the landscaped site.
5. **Response to constraints of the State classified Great Western Highway**. The setback of the built form from the northern property boundary reduces vehicular noise intrusion to achieve compliance with the internal acoustic criteria for an educational facility. The physical connectivity with the existing road network along the southern portion of the site facilitates direct vehicular access to the CCE, noting the challenges and restrictions associated with providing direct access from classified roads.
6. **Retention of overland flow paths to site watercourses**. The site topography slopes down towards a low point along the mid-northern boundary where the existing dam is located, with overland flow paths draining down towards this point. The siting of the footprint on a high ridge point outside of this low-lying area ensures the building is not located within the nominated Flood Planning Area (along the northern boundary surrounding the dam), that floor levels sit above the 1%AEP flood level, and that overland flow paths and existing stormwater detention are not physically obstructed.
7. **Loss of existing vegetation is reduced where possible**. The building footprint is located within an area that is largely clear of significant trees and vegetation. Whilst the proposal will require the loss of 31 existing trees, this has been minimised as much as possible and is considered the best outcome given the size of the building footprint.

7.1.2. Building Envelope and Façade Articulation

A key principle of this development is integrating with the existing built form, landscape character and future adjacencies. The development has not been designed in silo, rather provides a refined and contextually relevant aesthetic in response to place and function.

The proposed urban form and design of the building builds upon the site selection to provide a holistic response to surrounding uses. The design provides for a strong arrival presence to the east (**Picture 16)** and west (**Picture 17)** in respect of the WSU institutional connection and internal student connection, respectively. This is predominately achieved through the large entry forecourts, the 'floating' rooftop parasol and external colonnade. The permeability and open reception of these facades is illustrated in **Figure 14.**

Figure 14 Building frontages

Picture 16 External eastern building frontage oriented towards the WSU boundary

Picture 17 Internal western building frontage oriented internally towards existing TAFE NSW buildings

Source: Gray Puksand

The simple and refined nature of the rectangular building envelope complements the institutional character of the broader campus. Due to the lack of building height and density controls applicable to the site under relevant environmental planning instruments, the proposed three-storey form has been developed with regard to the bulk and scale of existing buildings and existing view corridors, whilst also delivering the quantum of floor space required to accommodate TAFE NSW's educational requirements. The overall building height and provision of double and triple-height spaces similarly reflects the spatial need and clearances of trade activities accommodated within the facility. In this way, the proposed form has been built for purpose with the requirements of the end user (student and learning practices) in mind.

In addition, the proposed 21m setback to the eastern property boundary provides sufficient building separation to maintain visual and acoustic privacy between uses, and to retain the existing low-density character of the surrounding area.

The façade of the proposal is comprised of a number of elements which give the building its articulated form and result in several design and performance outcomes that contribute to the overall success of the design. As discussed in **Section 4.2.4,** seven façade types are proposed to achieve the following objectives:

- Operable windows and door to contribute to a natural ventilation strategy and reduction in mechanical ventilation, and provision of an open façade to the central core atrium to allow this space to promote natural airflow.
- Use of high-performance double glazing and building materials to improve energy efficiency, acoustic separation and thermal comfort.
- Provision of glazing to provide amenity and outlook towards the Blue Mountains and the existing site landscaping, as well as views into the educational activities within.
- Installation of roof skylights to increase internal daylight access and reduce reliant on artificial lighting.
- The use of concrete walls, metal cladding and powder-coated aluminium louvres to minimise internal temperature variation. These materials also have a respectful yet considered colour palette, allowing the building to integrate within the existing landscape and respond to the functional architectural style.

The ESD Report provided at **Appendix V** provides further detail of the façade system and its contribution to the ESD principles and outcomes delivered by the development. Overall, the proposed façade provides a refined response that contributes to and engages with its surrounds, and the existing and future urban context of the area.

7.1.3. Design Excellence

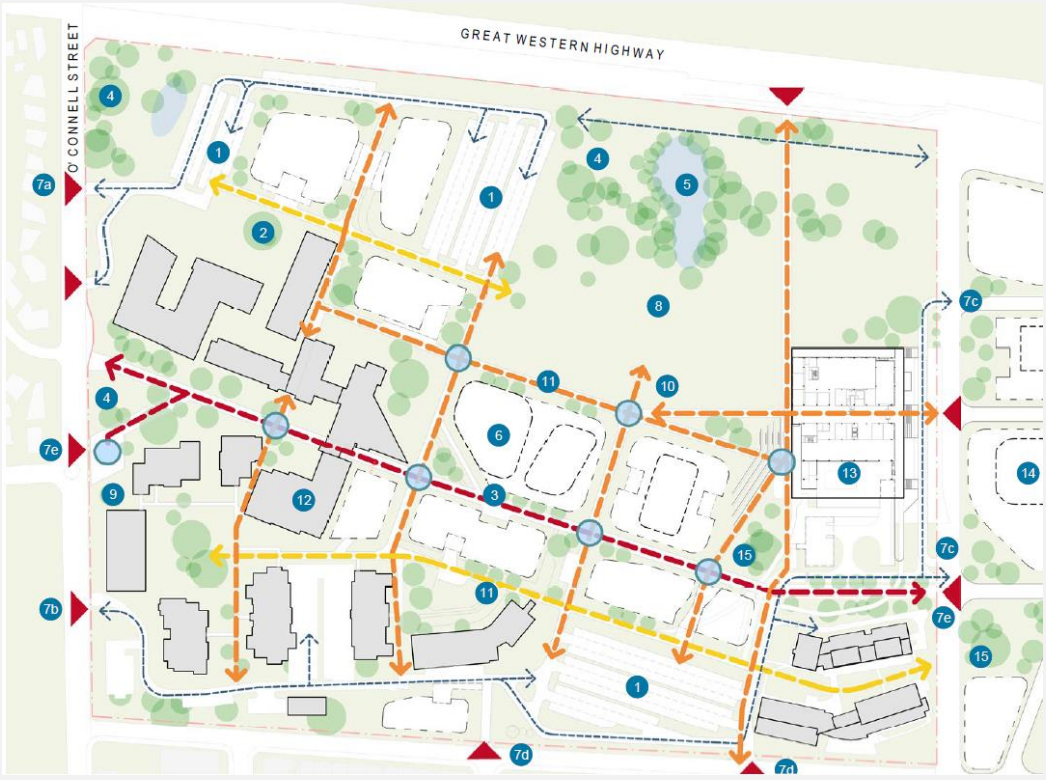
The SEARs require consultation with the GANSW through the NSW SDRP process. In response, the proponent engaged with the GANSW on 18 November 2020, and subsequently on the 17 February 2021. It is noted within the SDRP Session 1 minutes, the Panel expressed their support for the proposal as follows:

> *The panel supports the creation of the Western Sydney Construction Hub Centre for Excellence to accommodate building, construction and engineering education which is well located to service industry needs in growing Western Sydney.*

The consideration of alternative design options and implementation of Panel recommendations has resulted in significant design improvements and refinements to ensure the built form responds to the site's unique landscape qualities and the proponent's educational requirements.

Within Session 1, the Panel identified three key items which were to be further considered and refined as part of design development. A response to each of the recommendations are discussed in **Table 13** and further within the Architectural Design Statement at **Appendix F.**

Table 13 Response to SDRP Session 1 feedback

SDRP Item	Response
Master plan and landscape	The orientation of the building footprint has been developed with regard to the internal TAFE NSW assets and opportunities for future infill. **Figure 15** provides an amended structure plan for the TAFE NSW Kingswood site and illustrates the integration of the proposed development with the campus arrangement. The proposal seeks to balance internal linear building alignments with perimeter boundaries to achieve a suitable building orientation, whilst also meeting spatial requirements for the new facility. The strong parallel alignment with the western boundary is maintained to support future connectivity and institutional relations with WSU. While the future direction and built form of the WSU Werrington South campus is uncertain, potential future vehicular and pedestrian connections are identified to demonstrate the improved extension with the surrounding context as a result of the proposal. Internally, the proposal represents a logical infill of the eastern portion of the site and seeks to address the existing site imbalance. While the building envelope does not directly align with the east-west axis, as discussed in the Architectural Design Statement adopting this alignment involves significant site excavation and benching due to the site topography. The proposed siting balances natural constraints, building alignments, feasible excavation and connectivity of utilities and infrastructure. Further, it is considered that the alignment of the proposed building retains the development potential of the campus centre, as illustrated by the dark grey future envelopes below. Where new nodal points are created at the intersection of building contours, open spaces and landscaping is provided to soften and improve this connection. Figure 15 Integration with TAFE NSW campus structure plan  *Source: Gray Puksand*

SDRP Item	Response
Architecture	The Panel identified a number of matters for further consideration in regard to the architecture of the proposed development. Key matters are addressed as follows: ▪ Detailed site and landscaping plans have been developed to provide a positive arrival sequence from the southern vehicular entry to the building**.** The location of the primary entry on the western façade of the building has been retained as this location achieves a balance between the topographical positioning of the building and the integration with the broader site structure plan. The provision of landscaping and public domain elements such as lighting and signage provides for a more developed civic address for student arrival. ▪ Sun shading analysis has been undertaken to confirm the 'floating' rooftop parasol provides adequate sun shading to the façade whilst permitting visual connection with the surrounding landscape. ▪ A sectional analysis to illustrate the building's location within the site topography and its relationship to existing buildings and WSU campus is provided in the Architectural Design Report and in **Figure 7.** ▪ The internal layout and function of the proposed development has been developed to co-locate similar uses and facilities including workshop areas, learning spaces and collaboration areas to maintain the acoustic amenity of each of these uses. In addition to this, the Noise and Vibration Report has undertaken an assessment of the internal amenity of the facility and confirms the proposal provides adequate amenity for students and staff. Refer to further discussion in **Section 7.3.3.** Benchmarking of best-practice educational precedents was also undertaken prior to design development of the scheme. As discussed in the Architectural Design Report, this included research and analysis of the TAFE South Australia Tonsley Campus, Victoria University Construction Hub, Bendigo Kangan Institute – Automotive Centre for Excellence, Cicada Innovations – National Innovation Centre, Deakin University – Centre for Advanced Design in Engineering, Monash University, and the Wintec Engineering and Trades Facility in Hamilton, New Zealand. ▪ The proposed modular and prefabricated construction approach is an emerging trend within the construction industry that reflects desires to construct more efficiently (both time and cost), as well as sustainably. These trends have been adopted into the proposal to promote best practice, as well as ensure the delivery of the facility within a timely manner.
Sustainability	The design represents a strong focus on the effective management and use of water in response to the site's context and the expansive roof design. The design incorporates a recycled rainwater installation system with a capacity for approximately 80,000L, a greywater collection and treatment system (to collect, treat and reuse greywater for landscape irrigation), and reuse of clean fire service test water. The proposal demonstrates a commitment to best practice environmental performance through the target of the 5 Star Green Star pathway. Refer to further discussion in **Section 7.8.2** and the ESD Report at **Appendix V.**

A follow up SDRP Session 2 on 17 February 2021 provided an update to the Panel on the design development in response to commentary. A response to each of the recommendations provided by the GANSW are discussed in **Table 14** and further within the Architectural Design Statement at **Appendix F.**

Table 14 Response to SDRP Session 2 feedback

SDRP Item	Response
Masterplan and Landscape	Entry sequences to the building have evolved during design development to create a stronger arrival presence through the TAFE NSW Kingswood campus and when accessing the building from WSU campus and the Highway. Amendments to the western elevation to increase visual porosity have been introduced in response to the GANSW's comments, in order to enhance sightlines into the building and elevate the internal activities as a view when approaching from the west. The inclusion of additional windows along the western elevation provides glimpses into the building and similarly breaks down the building bulk, whilst the glazed facade panels (refer **Figure 16)** provides a direct connection between the internal and external environments. The relocation of the services area from the south/west ground floor to the south/east below ground area also strengthens this connectivity. Figure 16 Increased permeability of façade  Picture 18 Northern façade  Picture 19 Western façade *Source: Gray Puksand*

SDRP Item	Response
	In regard to the northern interface, the reinstatement of a student seating and learning area adjacent to the northern elevation creates an extension of the colonnade into the landscape, thereby achieving physical and visual connections throughout the perimeter of the building. The addition of an external stairway on this elevation alleviates the steep changes in topography in this location, ensuring pedestrian connectivity is maintained. Development and resolution of the eastern façade has been undertaken to improve connectivity with the WSU campus. The landscape design has evolved to incorporate seating steps, an expanded plaza/ pedestrian pathways and bench seating. These external areas integrate with the internal layout and will directly connect with the industry engagement space and triple-height southern workshop, to blur the interface between internal and external environments. The internal relocation of the staircase directly responds to the Panel's comments and strengthens the internal east/west connection when arriving from the east. Overall, the amendments to the façade have improved the visual and institutional connectivity of the building with the surrounding landscape, TAFE NSW campus and WSU neighbour – both internally and externally. This has been achieved whilst retaining the desired functionality of key areas within the floor plate.
Architecture	As discussed above, amendments to the façade design have been introduced to reduce the mass of the building and increase permeability, particularly on the western elevation. The relocation of the services and storage block to the eastern side as recommended also achieves this. The design has sought to balance thermal heat mitigation and increasing the solidity of the western façade, with capturing the expansive views across the site and inviting views into the building. As such, careful consideration has been given to the extent of roof overhang, positioning of glazing and solid to glazed ratio on the central aspect of the Western Façade addressing the atrium space. The roof colonnade extends 2m from the western elevation at ground level, and up to 6m up to 6m from the western elevation at the level 1 roof terrace area, protect from major solar gain. The north/south and east/west internal alignment has been enhanced with a resolved alignment. The internal break-out areas have been resolved to enhance the atrium space as opposed to intruding on it, in order to achieve the intention for visual and physical connections throughout the building. In addition, the revision of the café location to align with the eastern entry will activate this entrance space. It is noted the intention of this café is a simple takeaway 'kiosk' for hot and cold beverages, with alternative food options and a canteen provided elsewhere on the campus.
Sustainability	The roof eave along the western elevation extends up to 6m from the façade of the building, providing a generous shading area over the ground plane pedestrian walkways and upper floors. This also seeks to mitigate the heat loading of this façade during the afternoon. The glazed skylights over the atrium have been maintained. The proponent is exploring detailed strategies including glazing suite selections, fritted glass options and potential thermal louvre utilisation to the exterior to mitigate heat load to internal spaces. These elements can be explored and implemented during design development.

As indicated above, through the natural progression and evolution of the scheme through design development, the proposal has responded to the outstanding matters raised by the GANSW and represents a comprehensive and robust proposal. A third SDRP will be scheduled during the assessment of the proposal to ensure these matters are closed out and that the final design exhibits design excellence.

7.1.4. Crime Prevention through Environmental Design

SEARs Requirement

SEARs Item 4 requires the SSDA to address Crime Prevention Through Environmental Design (**CPTED**) principles. In response, a CPTED Report has been prepared by Mecone to address the potential for anti-social and criminal behaviour within the public domain on the site and more broadly within the campus. The CPTED Report is provided at **Appendix O**.

The CPTED report has drawn from the Crime Prevention and the Assessment of Development Applications Guidelines under section 4.15 of the EP&A Act. The proposal has been assessed against the CPTED Principles being, natural surveillance, access control, territorial re-enforcement and space management.

Assessment

A summary of the assessment provided in the CPTED Report of the proposal against each of the four key CPTED principles is provided in **Table 15.**

Table 15 Response to CPTED principles

Principle	Response	Recommendation
Natural surveillance	▪ Opportunities for natural surveillance is provided from WSU due to the proposed building orientation. ▪ The western walkways provide opportunities for passive surveillance of the car park on the southern frontage. ▪ Glazed facades facilitate natural surveillance. ▪ The internal positioning of uses ensures there will be activity and vibrancy throughout the building. ▪ The external roof terrace on the northern elevation provides for surveillance of the northern frontage.	▪ Lighting to be incorporated into entries and car park areas. ▪ Consideration of CCTV at building entries and car park areas. ▪ Landscaping to utilise low level shrubs interspersed with canopy trees that are regularly maintained.
Territorial reinforcement	▪ The development has been designed for a specific purpose as a TAFE building with workshops, learning spaces and amenity areas. ▪ Legible building entries are provided in response to site topography. ▪ The eastern entry is centrally located and recessed, providing a strong visual cue, while the western entry is centrally located and positioned to meet with the western walkways, resulting in a continuous path of travel and direct sightlines between the commute car parking to the south.	▪ Careful signage and transition cues should be provided surrounding the outdoor workshop area to avoid confusion in this space. ▪ Entry and wayfinding signage should be provided.

Principle	Response	Recommendation
Access control	▪ All equipment will be stored securely in the outdoor workshop spaces. ▪ The building entries are positioned to allow clear and direct access to the surrounding pedestrian network and the pathways to the west. ▪ The single driveway and loading dock formalise vehicular movements into and out of the site.	▪ Learning areas to be secured after hours. ▪ Pathways to be clearly illuminated to provide clear and safe access. ▪ Fire exit doors to be fitted with measures to restrict external unauthorised access. ▪ Doorways to comply with Australian Standards.
Space management	▪ The building will be managed by TAFE NSW in accordance with a management plan.	▪ Building management plan should address removal of graffiti and landscape maintenance to ensure the site displays strong ownership. ▪ Use of a robust material palette, particularly for outdoor spaces in order to reduce susceptibility to vandalism and wear and tear.

Mitigation measures

Subject to the inclusion of the recommendations identified above, no further mitigation measures are required to manage crime risk and promote casual surveillance and safety as a result of the proposal. Mecone note that the proposed recommendations are relatively minor and can be detailed and resolved prior to receipt of the Construction Certificate.

7.1.5. Lighting

SEARs Requirement

SEARs Item 5 requires the SSDA to include a lighting strategy and identify measures to reduce spill into the surrounding sensitive receivers. Discussion of proposed lighting design is contained in the Architectural Design Report at **Appendix F,** and the Lighting Report prepared by Haron Robson at **Appendix Q.** These documents and the proposed lighting provision have been prepared to comply with relevant NCC and Australian Standards, and the Penrith City Council – Public Domain Policy lighting requirements.

Assessment

The provision of site lighting will be resolved during the detailed design phase, however the broader lighting strategy for the development area has been developed to ensure the timely resolution of environmental impacts where required. Within the public domain, the lighting strategy comprises internal lighting, pedestrian walkway and streetscape lighting, probable landscape lighting, internal vehicular access lighting, and car park lighting. This will be provided through post-top luminaires, bollards and accent lighting. With regard to the building, façade up-lighting will be provided to enhance architectural features, building entries and signage.

The building and location of indicative lighting is located a sufficient distance away from adjoining sensitive receivers including the future residential lots to the north and south, existing development to the west, and Great Western Highway to the north. This physical separation and obstruction of existing building minimises any potential light spill on these properties and the passage of motorists along the classified roadway.

The Lighting Report at **Appendix Q** identifies a positive impact resulting from the lighting strategy associated with safety, criminal deterrence and reduced energy usage. Lighting will comply with the recommended maximum values of light spill in accordance with Australian Standard 4282 “Control of the Obtrusive Effects of Outdoor Lighting”.

Mitigation Measures

Subject to the compliance of the detailed design with the relevant Australian Standards applicable to lighting, no further mitigation measures are required to manage lighting spill on surrounding receivers. These can be detailed and resolved prior to receipt of the Construction Certificate.

7.1.6. BCA and Accessibility

SEARs requirement

The SEARs require an Accessibility Report to be provided in the SSDA.

An Accessibility Design Report has been prepared by ABE Consulting and is provided at **Appendix JJ**. In addition to this, further consideration of the compliance of the design development of the proposal with relevant provisions is outlined in the BCA Report prepared by Metro BC at **Appendix II**.

ABE Consulting have undertaken an assessment of the Architectural Plans against the accessibility related provisions of the Building Code of Australia (**BCA**) Volume 1 and the Disability (Access to Premises – Buildings) Standards 2010. Metro BC have further undertaken a review of the plans against the deemed to satisfy provisions of the Building Code of Australia 2019 amendment 1.

Assessment

In summary, the reports conclude the compliance matters raised in the report are capable of complying with the relevant accessibility and BCA provisions, or compliance can be achieved through design development and preparation of detailed documentation for Construction Certificate. ABE Consulting identify that of the two existing pedestrian entries on O'Connell Street, the southern entry has several compliance departures to current accessibility standards. In addition, a number of existing internal pathways also have several compliance departures. Accordingly, it is recommended that the northern entry on O'Connell Street is utilised for pedestrian access, and that a new pathway is constructed to provide access to the TAFE NSW CCE from this entry.

In exception of the recommended amendments to the accessibility pathways within the site, it has been found that the proposed development is capable of achieving compliance with the relevant provisions of the BCA and accessibility provisions.

Mitigation measures

To ensure accessible access is provided to the proposed building, CCE recommend use of the northern pedestrian entry on O'Connell Street, and the provision of a new pedestrian pathway through the site to the proposed building. In exception of this, no additional mitigation measures are required as the proposal is considered capable of achieving with all relevant provisions which can be detailed and resolved prior to receipt of the Construction Certificate.

7.2. ECOLOGICALLY SUSTAINABLE DEVELOPMENT

SEARs requirement

SEARs Item 8 requires the EIS to identify how ecologically sustainable development (**ESD**) principles will be incorporated into the design and ongoing operation phases of the development, including consideration of national best practice sustainable building principles. An ESD Report has been prepared by Northrop (**Appendix V**).

Assessment

As a 'centre of excellence', integration of environmentally sustainable design (**ESD**) principles in the design of the proposal has been a key consideration since the project inception. The proponent seeks to utilise this opportunity to exhibit and implement best practice environmental performance for an educational facility, to similarly influence sustainable outcomes in future educational facilities.

The proposal has considered the site's microclimate and influence of temperature, humidity and diurnal variation on building usage and function. The design has responded to the site's identified climate zone (BCA Climate Zone 6), and the impacts of climate change in exacerbating surface temperatures through measures such as consideration of building orientation and site layout to promote airflow through the building, material selection, landscaping, implementation of proposed HVAC controls and mixed mode ventilation strategy. Overall, these measures alongside the adaptability of the building and its systems demonstrate a strong consideration of potential future climate change and necessary adaptation methods.

The proposed development has incorporated the four ESD principles set out in Clause 7(4) – Schedule 2 of the EP&A Regulation. The proposed development targets the following:

- 5 Star Green Star Design & As Built v1.3 rating, considered Australian 'Best Practice'.
- Compliance with mandatory Section J targets.

The high-performance operation of the building will be achieved through use of high-performance fabric, photovoltaic panels (including both rooftop panels and integrated into the building fabric), rainwater collection, geothermal heat pumps (to utilise ground temperatures to heat and cool the building) and displacement ventilation. The building also has an aim of building decarbonization, to be achieved through sourcing electricity from zero-carbon sources.

An ESD Report prepared by Northrop at **Appendix V** includes a framework to demonstrate how the proposal considers and reflects national best practice sustainable building practices to improve environmental performance and reduce ecological impact. This is outlined in **Table 16.**

Table 16 TAFE NSW CCE Sustainability Framework

Principle	**Response**
Positive Building	Strategies include: ▪ Identifying project's pathway to carbon neutrality ▪ Utilizing passive design strategies for natural ventilation, daylight, and thermal comfort with efficient shading ▪ High-performance building fabric and building sealing ▪ Building service innovation by reducing the carbon footprint of the Heating, ventilation, and air conditioning systems, efficient lighting, and providing controls around these systems ▪ Exploring options for Onsite energy generation ▪ Improving water balance for the building manage water and wastewater more efficiently. Integrating rainwater harvesting and greywater recycling for toilet flushing and garden irrigation ▪ Focus to reduce construction waste ▪ Conducting material life cycle assessment to reduce the embodied carbon of materials
Learning and Engaging Environment	Strategies include: ▪ Commitment to Reconciliation Action Plans ▪ Strip back approach by providing exposed building services and providing exposed wall built-ups in few areas ▪ Integrating the latest technologies on renewables, building automation, etc.
Environmental Comfort	Strategies include: ▪ Achieving a high quality of acoustic comfort ▪ Providing thermal comfort in all the occupied spaces ▪ Providing user experience by providing Visual comfort

Mitigation measures

Subject to the implementation of strategies outlined in **Table 16**, no further mitigation measures are required to manage the ecological impact of the development. It is noted that through targeting the 5 Star Green Star pathway, the proposal demonstrates a commitment to best practice environmental performance.

7.3. ENVIRONMENTAL AMENITY

7.3.1. Overshadowing and Solar Access

SEARs requirement

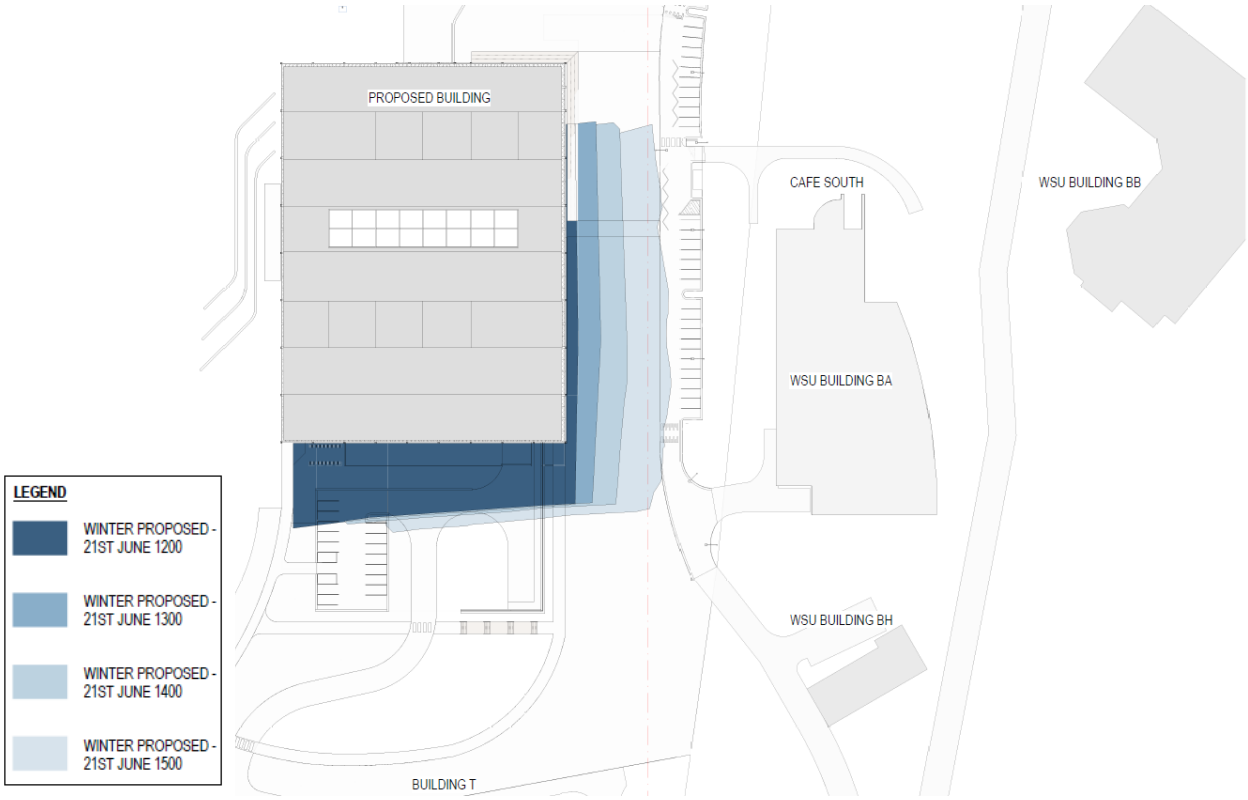
SEARs Item 5 requires the SSDA to assess solar access and overshadowing impacts on surrounding areas. Shadow Diagrams of the proposed development at hourly intervals between 9am – 4pm on 21 June are provided in the Architectural Plans at **Appendix E**, and discussed in the Architectural Design Statement (**Appendix F**).

Assessment

A study of the potential overshadowing impact of the development confirms the proposal will have a minimal impact on surrounding buildings and the adjacent WSU site. The minimal shadow impact results due to the low rise of the proposed building, site topography and the low-density landscaped character of the site. Between 9am and 2pm, the extent of overshadowing falls within the site boundary and is concentrated to the open space, landscaped and loading areas surrounding the building (refer afternoon shadow illustrated in **Figure 17)**. The siting of outdoor seating areas on the northern and western frontage of the building ensures these areas receive solar access throughout the day. Similarly, the separation of the proposed development from Building T ensures there is no overshadowing of this facility.

At 3pm and 4pm, the shadow falls upon the eastern site boundary and to the west of the WSU Building BA (John & Patricia Ward Library. This building is oriented to the east and as such the shadow will fall on the rear elevation. No significant amenity impacts are associated with this level of shadow, noting that the site receives significant morning and midday solar access.

Figure 17 Shadow Diagram Impact – Winter Solstice



Source: Gray Puksand

Mitigation Measures

Beyond the design moves taken to, where possible, minimise solar access impacts and improve daylight access to WSU, no further mitigation measures are proposed or considered necessary.

7.3.2. Visual Impact

SEARs requirement

SEARs Item 5 requires the SSDA to provide a view analysis from key vantage points and streetscape locations and assess the visual impact of the development on the streetscape, public realm and significance vistas. The Architectural Design Statement **(Appendix F**) contains photomontages of the visual impacts of the proposal in accordance with this requirement.

Assessment

The proposed building has been designed to sit down within the existing landscape of the subject site to minimise visual impacts on the campus and rural setting of the place more generally. The Architectural Design Statement has undertaken an assessment of the proposal from five key vantage points (**Appendix F).** An assessment of the visual impact from these vantage points, is provided in **Table 17.**

Table 17 Visual impact assessment

Vantage Point	**Response**
View 1: Great Western Highway perspective	View 1 is obtained from the Great Western Highway approaching from a westerly direction. The view of the building is entirely concealed by the grouping of trees surrounding the pond and along the northern elevation of the site. There will be no distraction or disruption of sightlines for motorists along this key vehicular route.
View 2: Great Western Highway perspective 2	View 2 is obtained from the Great Western Highway approaching from an easterly direction. Views through the gaps between existing retained on-site vegetation offers a distinctive view of the proposal, which due to the topography of the site sits amongst the landscape. The absence of built form within the centre of the site provides a clear view of the western façade, offering an improvement to the existing landscaping. The prominent view creates a clear presence of TAFE NSW on the site and anchors the surrounding educational precinct, a positive contribution to the site.
View 3: King Street perspective	View 3 is provided from the shared boundary between the site and the adjacent WSU site, oriented south towards the proposed development. The clear view of the eastern entry provides a civic response to the adjacent WSU campus, promoting future institutional relations between the two campuses.
View 4: King Street perspective	View 4 is provided from the shared boundary between the site and the adjacent WSU site, oriented north towards the proposed development. The retention of the existing site vegetation within this location softens and integrates the eastern façade of the budling into the landscape.
View 5: Southern car park perspective	View 5 illustrates the pedestrian approach towards the campus from the southern car park area. This orientation captures the western elevation, which provides the student entry to the building. The provision of two linear pedestrian pathways towards the building directs pedestrian traffic towards the facility, and the provision of additional proposed landscaping within this area will further soften and animate this view.
View 6: Internal TAFE NSW view	View 6 across the central area of the campus captures the full western elevation in full view. The prominence of the building can be appreciated from this view, with the proposed façade articulation and vertical pilotis providing visual interest and reducing the perceived scale of the development. The proposed flat roof structure and ‘floating’ overhang similarly reflects the wide, flat expanse of the site and is seen as a pavilion in the landscape.

Mitigation measures

This assessment concludes the level of visual impacts of the proposed development are found to be acceptable and no mitigation measures are recommended.

7.3.3. Arboricultural Impact

SEARs requirement

The SEARs issued for the project identified the requirement to provide an Arborist Report within the SSDA package. Tree IQ have prepared an Arborist Report for the proposal (**Appendix BB**) which determines the impact of the proposed works on the trees, and where appropriate, recommends the use of sensitive construction methods and tree protection methods to minimise adverse impacts.

Assessment

In total, the site currently accommodates 88 trees comprising a mix of locally indigenous, native and exotic species. One of these trees is dead, and the remaining are not identified as heritage items in Schedule 5 of the Penrith LEP 2010. In general, the Arborist Report identifies the trees as low to moderate value.

To enable the proposed built form and landscape design outcome, 31 trees are proposed for removal. Of these, 28 trees are of low landscape significance and have been allocated a retention value of *consider for removal*. The Arborist Report further notes that new tree plantings using advanced size specimens could replace the loss of amenity within a short timeframe, to ameliorate the impact of the tree loss. In response, the landscaping plan proposes to offset the proposed tree removal and provide replacement canopy cover through the planting of trees, shrubs and grasses, including species native to the Cumberland Plain including spotted gum, forest red gum, water gum, Australian Indigo, and Kangaroo and Tussok grasses (refer **Appendix G)**. This is considered a justifiable response to mitigate the impact of the proposed development.

Mitigation measures

The Arborist Report further recommends implementation of tree protection measures for the 57 trees. Where necessary, a tree protection zone will be provided during construction to ensure these trees are not adversely impacted or damaged during construction of the proposed development.

7.3.4. Noise and Vibration

SEARs requirement

SEARs item 12 requires a noise and vibration assessment to be prepared in accordance with the relevant EPA guidelines, detailing a quantitative assessment of the primary noise and vibration sources during demolition, site preparation, construction and operation. The assessment is to outline proposed noise and vibration mitigation measures and monitoring procedures. Consideration of acoustic impacts is also referenced in SEARs item 5.

A Noise and Vibration Impact Assessment has been prepared by Norman Disney Young (**NDY**) (**Appendix N**) in response to SEARs item 12 and 5.

Assessment

To assess the noise and vibration impacts of the proposed development, the following process was carried out:

- Identify and classify the surrounding noise and vibration sensitive receivers surrounding the proposed development. In summary, the main receivers surrounding the site include the WSU Werrington South campus to the east, a future residential area to the south, existing residential to the west of O'Connell Street, and a future residential area to the north adjacent to St Charbel Boulevard.
- Determine the project noise and vibration criteria applicable to the proposed development, and development of project specific trigger levels to determine amenity criteria. This was informed by the location of 5 noise loggers at various locations surrounding the site. Data was collected for the day (0700 – 1800), evening (1800 – 2200) and night (2200 – 0700) periods.
- Assess the operational and construction noise and vibration impacts of the noise and vibration sources generated by the proposed development to the surrounding noise-sensitive receivers.

- Identify and classify the noise and vibration sources generated by the proposed development, together with external noise and vibration sources impacting on the proposed development.
- Provide details of mitigation measures required to alleviate noise and vibration impacts to achieve the project noise and vibration criteria.

Construction Noise

As detailed construction methods are yet to be confirmed, the assessment assumes use of general plant and equipment during construction based on previous project experience. This includes use of excavator, mobile cranes, truck movement, piling rigs and dust suppression.

NDY compare the expected noise level (dBA) for the critical receivers (50 m) for construction sources with the maximum allowed construction noise levels to identify any possible exceedances. In summary, all construction noise sources (including excavation, structural and fit-out), comply with the maximum noise level of 75dBA. No additional noise mitigation measures are required during the construction of the development.

Operational Noise

The anticipated sources of noise generation during operation include mechanical plant (outdoor units, exhaust fans and fume extraction fans), electrical generators, fire pumps, PA systems, and noise generated from use of the outdoor balcony areas, workshops and industry engagement areas. In regard to the operation of internal uses, NDY note there is no music associated with the use of industry engagement areas and as such has been assessed accordingly. NDY also note that the built form and external storage area provide a barrier attenuation for the external workshop area, which reduces the anticipated noise emissions levels generated from the use of tools and machinery in this area.

It is anticipated that the use of public address (**PA**) systems will be incorporated into the building, however the extent of this will be resolved during detailed design and operation. PA systems will be used within the auditorium and industry engagement areas, which have glazed and non-glazed facades to reduce propagation of noise to surrounding receivers. The system will only be used during operational hours as identified in **Section 4.2.8**.

While the development of the proposal will result in an overall increase of up to 9,500 students by 2030 across the entire TAFE NSW Kingswood campus, it is noted that when considering the scale of the entire campus (23 hectares), the distribution of buildings and the low-density nature of these buildings, the increase in operational noise generated from students will not have a significant impact on surrounding residential receivers. Whilst the primary access to the TAFE NSW CCE will be provided from Gate 2, it is noted that Gate 1 provides access for the northern buildings on campus to sufficiently distribute vehicular noise along O'Connell Street.

NDY compare the expected noise level (dBA) for the critical receivers (50 m) for operative sources with the maximum allowed construction noise levels to identify any possible exceedances. In summary, NDY identify the following exceedances of the maximum noise level of 44dBA (day), 46dBA (evening) and 40dBA (night):

- Mechanical plant during night-time.
- Fume extraction fans during night-time.

However, in response to the above NDY note that mechanical plant will not be operating at full capacity during night-time hours and is therefore anticipated to have an expected noise level of 38dBA – which complies with the maximum criteria of 40dBA. As such this will not have an adverse acoustic impact on surrounding receivers.

Noise Intrusion

Noise generated from vehicular activity along Great Western Highway has been assessed against the Development Near Rail Corridors and Busy Roads – Interim Guideline for non-residential buildings. The recommended maximum noise intrusion for the facility is 40dBA for internal areas and 45dBA for external areas.

A critical noise level of 64 dBA during evening at the northern elevation of the proposed building was estimated based on the placement of noise loggers and noise source propagation models. As this exceeds the maximum noise intrusion of the facility, this will impact internal acoustic amenity. Accordingly, NDY recommend the installation of 6.38 mm single laminated glazing or double glazing with a high-quality aluminium framing section for the construction of the development.

Vibration

NDY note that it is not anticipated that vibratory piling will occur during construction of the proposed development. As such, vibration levels are estimated to be low and are not anticipated to generate a vibratory impact on surrounding receivers.

Mitigation measures

NDY recommend a number of measures to mitigate the noise and vibration generation and intrusion of the development as follows:

- Limited operation of mechanical plant during night-time, selection of low noise units and acoustic lining.
- Use of acoustic rated walls and attenuation for extraction fans.
- Restriction on use of outdoor workshops to between 7am – 6pm.
- Compliance with the Construction Noise and Vibration Management Plan principles identified in the Noise and Vibration Impact Assessment.

7.4. HERITAGE IMPACT

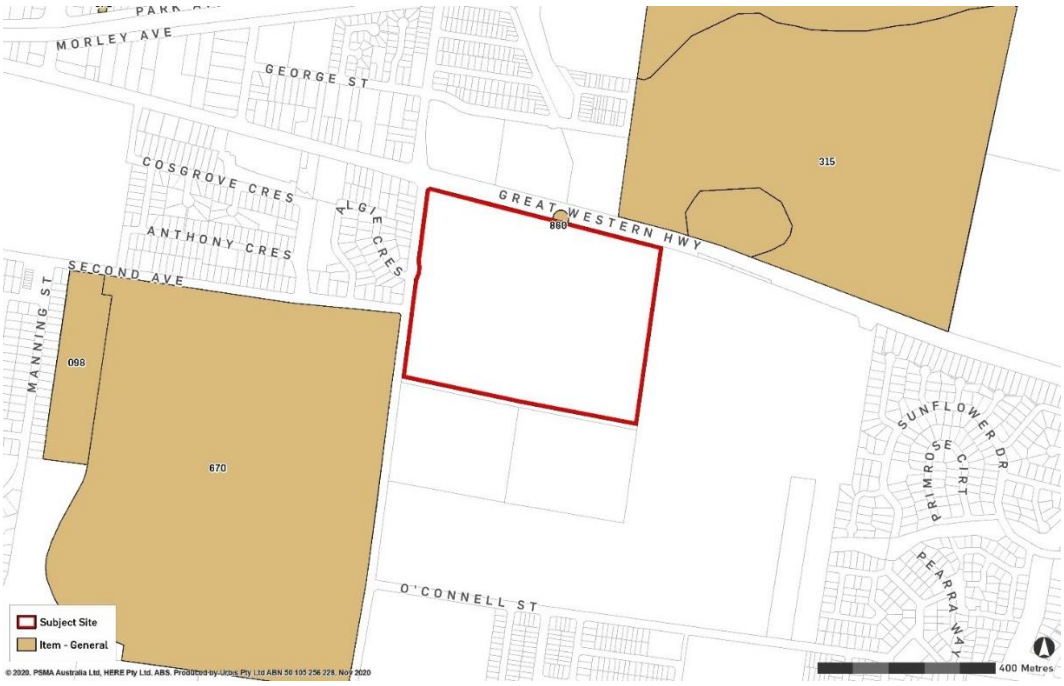
7.4.1. European Heritage

SEARs requirement

SEARs Item 9 requires the preparation of a Heritage Impact Statement (**HIS**) to be prepared by a suitably qualified heritage consultant to address the impacts of the proposal on the heritage significance of the site and adjacent areas. Urbis' heritage team have prepared a HIS (**Appendix K)** to assess the impact of the proposed development on elements with heritage significance within the curtilage of the site. As illustrated in **Figure 18**, this includes the following three local items of significance:

- Item 860 under Schedule 5 of the PLEP 2010, described as 'Milestone', fronting Lot 1 DP 866081.
- Item 315 under Schedule 5 of the PLEP 2010, described as "Werrington Park House", garden and poplar avenue at 653–729 Great Western Highway.
- Item 670 under Schedule 5 of the PLEP 2010, described as Teacher's residence (former) at 56 Second Avenue.

Figure 18 Vicinity heritage items



Source: Urbis

Assessment

The proposed works are located on a site which is not a listed heritage item and is not located in a conservation area. While the site has an interface with heritage items, no heritage items are located in such proximity that would have a critical visual or physical interface with the subject site. In regard to the surrounding heritage items, the following is noted:

- The closest heritage item is the 'Milestone' heritage item located to the immediate north of the subject site on the Great Western Highway. Development within the subject site will have no adverse impact on the significance of this Milestone heritage item which will retain its relationship with the Great Western Highway and will not be visually or physically dominated by the proposal. It is further noted the siting and orientation of the proposed CCE is to the eastern boundary of the site, located a sufficient distance from the Milestone which is located at the mid-line of the northern boundary.
- The broader vicinity heritage items are located at such a distance from the subject site and the location of the proposed works, that there will be no visual or physical adverse heritage impacts on these items as a result of the proposal.
- There are no overshadowing impacts on any vicinity heritage items. The setting, curtilage and landscaping of all vicinity heritage items will be retained.
- The proposal is of contemporary design and seeks to utilise contemporary materials including steel framing, glazing, and off-form concrete. The contemporary design of the building is appropriate given the context of the site and the lack of heritage constraints.

Mitigation measures

Urbis' heritage team have reviewed the heritage impacts of this the proposed development, and for the reasons outlined above, the heritage impacts are considered acceptable. No mitigation measures or recommendations are provided due to the lack of impact.

7.4.2. European Archaeology

SEARs requirement

SEARs Item 9 requires the consideration of any archaeological potential and significant on the site and the impacts the development may have on this significance. Urbis' heritage team have prepared a Historical Archaeological Impact Assessment (**HAIA**) in response to this requirement, provided at **Appendix L.**

Assessment

A review of the applicable heritage policy context to the site identifies that the site is not listed on or located within proximity of sites which are listed on the Commonwealth Heritage List or National Heritage List, nor is it listed on the Section 170 Heritage and Conservation Register.

The HAIA notes historical archaeological potential is defined as:

> *The degree of physical evidence present on an archaeological site, usually assessed on the basis of physical evaluation and historical research (Heritage Office and Department of Urban Affairs and Planning 1996)*

An assessment of the archaeological potential in association with each phase of development across the site in accordance with this definition is provided in the HAIA. The assessment concludes that there is generally low potential for archaeological resources to occur across the site, and specifically within the area proposed for impacts. Potential historical archaeological resources may have included general discard items in the form of rubbish dumps and evidence of agricultural practices in the form of post holes, discarded tools and structural remains from outbuildings. However, they are not considered likely due to the low potential to survive in good integrity resulting from the subsequent disturbance in areas of the site which experienced more intensive use. Should archaeological resources occur, they are not anticipated to meet the threshold for archaeological significance on a state or local level.

Mitigation measures

Urbis' heritage team conclude that the proposed works will have no impact on any identified potential significant archaeological resources. No mitigation measures or recommendations are provided due to the lack of impact.

7.4.3. Aboriginal Cultural Heritage

SEARs requirement

As required by SEARs item 12, Aboriginal Cultural Heritage will be assessed through the preparation of an Aboriginal Cultural Heritage Assessment Report (**ACHAR**). The ACHAR cover letter prepared by Urbis and provided at **Appendix M** provides an overview of the site and likely archaeological values, as well as ongoing steps to determine the level of impact on these values as a result of the project.

Assessment

Archaeological Investigations

In preparing the ACHAR, a detailed analysis of the archaeological context was undertaken to determine areas of significance as well as to provide a broader understanding of the site and its potential for archaeological significance. The following were undertaken to form a broad view of the context:

- A review of previous Aboriginal archaeological investigations to gain greater understanding of the site, and the immediate and wider surroundings. While there are no readily available assessments of the site, there have been numerous archaeological investigations carried out in and around Kemps Creek.
- An extensive review of the Aboriginal Heritage Information Management System (**AHIMS**) which found no registered Aboriginal objects within or adjacent to the Site.
- A review of geology and soils, hydrology, landforms and geotechnical analysis which collectively contribute to an understanding of potential areas of significance as well as possible risks to excavation and testing as well as the impact upon PADs.
- Research was undertaken with respect to past Aboriginal uses on and around the site as well as historical land uses from the late 18th and early 19th century.
- A Predictive Model, as required by the *Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales* was used to estimate the nature and distribution of evidence of Aboriginal land use in the site area. The model provides an assessment criteria and resultant action based on a likelihood measure of high, moderate, low or nil.

Following this review, Urbis has identified that the subject area has experienced high levels of disturbance in localised areas associated with the construction of TAFE NSW facilities to the western and southern portions. The eastern and central portions of the subject area, however, have experienced considerably lower disturbance. These areas have been cleared with their primary use being for agricultural practices since c.19th century. Current impacts are proposed within the eastern portion of the subject area, where disturbance has been minimal. The subject area is located within the Luddenham soil landscape (lu). Soils within this landscape are described as shallow to moderately deep (<100-150cm).

Due to the surrounding hydrology, the subject area retains potential for the presence of Aboriginal archaeological resources. The subject area contains a tributary of Werrington Creek, which is located approximately 900m north of the site. The tributary runs southward from elevated ground and has been dammed for agricultural purposes. South Creek is located approximately 2km east of the subject area. As the subject area is within 200m of a waterway, this increases the potential for Aboriginal objects and sites.

There are landscape features with potential for Aboriginal objects or archaeological deposits located within the subject area.

Accordingly, Urbis seek to undertake additional investigation in the form archaeological test excavation to establish the level of disturbance of the A horizon/topsoil in addition to the presence or absence of Aboriginal objects/archaeological resources within the subject area. This will inform the nature, extent, integrity and research significance of the Aboriginal archaeological resource.

In accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW 2010), the following steps will be undertaken:

- Site survey.
- A test excavation sampling strategy will be developed to provide a framework for sampling all potential archaeological deposits (**PAD**) that are at risk of harm (within the subject area).
- The relevant Heritage NSW regional office will be notified in writing 14 days prior to the excavation.

- Test excavation.
- Post-excavation tasks: Artefact analysis, preparation of Archaeological Technical Report (**ATR**) and update ACHAR with findings from ATR.

Further information on the timing, nature and responsibility of these tasks is outlined in the ACHAR Cover Letter at **Appendix M.** The DPIE and relevant stakeholders will be updated throughout this process, with the issue of relevant documents provided once available.

Consultation

Importantly, as required by the *NSW National Parks and Wildlife Act 1974* consultation has occurred with relevant stakeholders within the Aboriginal community about Aboriginal cultural significance with respect to Aboriginal objects and/or places with respect to the development area. At the time of preparation of this report, the consultation process is currently at Stage 3 of the following 4-stage process:

- Stage 1 – Notification of project proposal and registration of interest.
- Stage 2 - Presentation of information about the proposed project.
- **Stage 3 - Gathering information about the cultural significance.**
- Stage 4 – Review of draft cultural heritage assessment report.

The archaeological investigations outlined above similarly inform the relevant consultation with Aboriginal community. Further information on the timing, nature and responsibility of the ongoing consultation with the RAPs is outlined in the ACHAR Cover Letter at **Appendix M.** The DPIE and relevant stakeholders will be updated throughout this process, with the issue of relevant documents provided once available.

Mitigation Measures

Identification of mitigation measures will be provided in the full ACHAR upon completion of the consultation process. As discussed above, this will be submitted once available or as part of the RTS.

7.5. TRANSPORT AND ACCESSIBILITY

SEARs requirement

SEARs Item 7 requires the EIS to include a transport and accessibility impact assessment to assess the traffic and accessibility impacts of the development.

Traffix have prepared a Transport and Accessibility Impact Assessment (**TIA**) which is provided at **Appendix S**. The report provides an assessment of the potential impacts of the proposed development on existing transport conditions and assesses the access arrangements to the proposed development. The report is accompanied by a Green Travel Plan, which is provided at **Appendix U.**

Assessment

Vehicular Access

The O'Connell Street Gate 2 access driveway will provide access vehicular access to the proposed development. To achieve compliance with AS 2890.1 and AS 2890.2 and ensure service vehicles up to a 12.5m long heavy rigid vehicles can access the site, upgrade works to the Gate 2 access is proposed as part of the development.

As illustrated in the Swept Path Analysis provided in the TIA, the proposed upgrades will ensure vehicles can safely enter the site with no conflicts between passing vehicles. Traffix conclude the vehicular access to the site is satisfactory and complies with all relevant Australian Standards.

Parking Provision

The proposed development has had regard to the parking requirements stipulated in the Penrith Development Control Plan and the RMS Guide to Traffic Generating Development 2002. As Section 10.5 of the Penrith DCP does not stipulate a parking rate for educational uses, a survey-based assessment has been undertaken to determine the future parking demand and requirements of the site.

An online survey was undertaken between 27 November 2020 – 15 December 2020 of all staff and students on the existing campus, in addition to a parking survey undertaken on the site on 26 November 2020 between 7am – 7pm. The results of the surveys indicate:

- 84% of participants drove and parked within the site. 84% of drivers arrived before 9:30am, and 36% of drivers departed prior to 4pm.
- The peak parking demand therefore occurred after 9:30am, sustained until 1pm, and decreased progressively from that time.
- The parking demand at 9:30am is approximately 238 car spaces. This increases to the peak at midday of 277 car spaces.

Traffix note that the surveys were undertaken during COVID restrictions with less attendance at the site. Analysis of pre-COVID data has been undertaken by Traffix to validate the survey, which indicates a peak parking demand of 740 car spaces, relating to a parking demand rate of 1 space per 1.4 attendees. The current provision of 907 car spaces on the site is sufficient to accommodate the peak parking demand during both COVID and non-COVID existing conditions.

The proposal seeks to provide 16 spaces within the southern car parking area on the site. This will provide a total of 923 spaces on the site. A merit-based assessment of the adequacy of this provision is provided below.

Traffix have undertaken an assessment of the 2023 and 2030 development scenario. In summary:

- 2023: Based on the demand profile of 1 space per 1.4 persons, the 2023 scenario will result in the demand for an additional 150 car spaces to a total of 890 spaces. This can be accommodated within the proposed total of 923 spaces.
- 2030: Based on the demand profile of 1 space per 1.4 persons, the 2030 scenario will result in the demand for an additional 1,517 car spaces. Traffix however conclude a reduced parking profile demand will result due to a number of factors and a 'target' driver modal split of 70% is anticipated. Justification for this is provided in the Traffic Report at **Appendix S.** Based on the 70% target, the 2030 scenario will result in demand for an additional 160 spaces to a total of 900 spaces. This can be accommodated within the proposed total of 923 spaces.

The provision of 16 parking spaces is therefore considered acceptable for the site and the proposed educational facility. The design of the internal car park complies with the relevant Australian Standards. Access to these parking spaces will be provided from the O'Connell Street Gate 1 and 2.

Pick up and Drop off

The online survey collected data on existing pick up and drop off arrangements on the campus. The results of the survey indicated 6% of students/ staff were passengers being dropped off. When applied to the 2030 development scenario, this estimates 29 passengers will be dropped off and picked up.

Traffix consider that as pick up and drop off will be dispersed throughout the day, these arrangements can be accommodated safely within an available parking space or within the circulation aisle of the car park.

Bicycle Provision

The Penrith City Council DCP defers to the Planning Guidelines for Walking and Cycling' (NSW Government 2004) to determine minimum bicycle parking requirements. The Planning Guidelines provide the following bicycle parking rate for tertiary education establishments, universities and TAFE's:

- Staff: 3-5% of staff,
- Students: 5-10% of fulltime students.
- Visitors: 5-10% of staff.

The application of the above bicycle parking rates to the maximum number of students and staff onsite at any one time for the 2030 development scenario (441 additional students and 39 additional staff) results in the requirement for a minimum of 26 bicycle spaces.

Application of the long-term bicycle travel mode target for staff and students (4%) to the 2030 development scenario staff and student population results in a requirement for 19 bicycle parking spaces.

Therefore, provision of 26 bicycle parking spaces is considered adequate to satisfy Council's DCP requirement and long-term bicycle travel mode targets for staff and students. In response, a minimum of 26 bicycle parking spaces are to be provided on the lower ground floor within the bicycle storage area.

Loading and Servicing

The proposed design provides for a service vehicle bay within the loading dock for the proposed development. This service bay can accommodate a 12.5m heavy rigid vehicle (**HRV**) and as such Traffix consider this sufficient to accommodate operational loading and servicing for the CCE. The proposed internal road network and loading bay can also accommodate an emergency service vehicle.

Traffic Generation and Road Network Impact

Traffic modelling and data analysis has been conducted to determine the trip generation as a result of the development. This modelling has been undertaken based on the following methodology:

- Travel mode surveys (discussed above).
- Traffic generation surveys undertaken on 3 December between 8:30am – 9:30am and 4:30am – 5:30pm.
- Application of a growth rate of 2% per annum to generate the 'worst case' scenario for the development.
- A comparison of 2019 SCATS traffic data obtained from TfNSW for the intersection of Great Western Highway and O'Connell Street on 26 November 2019 and 24 November 2019.

The above combined methodology is in accordance with the SEARs requirements, which notes that alternate methods for gaining accurate traffic analysis data can be agreed with TfNSW.

Traffix have undertaken an assessment of the 2026, 2030 and 2036 development scenario. In summary, 145 additional trips are anticipated by 2026 and 334 additional trips are anticipated by 2030. Traffix conclude the proposal will be completed in 2030 and no additional trips related to the development will be generated. Increases in trips will therefore not be attributed to the proposal.

Traffic generation rates were input into the SIDRA Intersection software to determine traffic conditions. A distribution rate of 70% north and 30% south were applied for both arrivals and departures. The impact of the proposed development on network performance is outlined below:

- Great Western Highway / French Street/ O'Connell Street:
  - AM: Decrease in the level of service (**LoS**) from B (2020 base) to D (2030 growth including the development).
  - PM: Decrease in the LoS from B (2020 base) to D (2030 growth including the development).
- Great Western Highway/ Bringelly Road:
  - AM: No change to LoS.
  - PM: No change to LoS.
- Caddens Road/ Gipps Street/ Kent Road:
  - AM: Decrease in LoS from C (2020 base) to D (2030 growth including the development).
  - PM: No change to LoS.

The results indicate that all intersections operate at a LoS of D or better, and traffic signals, roundabouts and give way signs are not yet at capacity. Traffix conclude all future traffic impacts are considered manageable and do not require upgrades or improvements.

Green Travel Plan

The requirement for a Green Travel Plan (GTP) was requested in the SEARs for the proposed development. The GTP provides an assessment of the existing methods of public and active transport links to the site and outlies how the development intends to make travel to and from the site safer and easier.

The GTP notes the relatively high (84%) proportion of survey responses which drive to the campus. A long-term target reduction to 71% car usage is proposed within the GTP. Measures proposed to promote sustainable transport modes and achieve this modal shift include:

- Preparation of a Transport Access Guide and provision of guide to students.
- Uptake of bus services, including the private shuttle bus service provided by WSU to transport students between Kingswood station and the WSU Werrington and Kingswood campuses. It is understood that a proposal is in place for use of the bus service by TAFE NSW students.
- Provision of 26 bicycle spaces and EOTF to encourage staff and students to use cycle infrastructure.
- Implementation of a carpool scheme for staff and students including on-site notice board and web-based notice.

The GTP will be monitored and regularly reviewed to ensure its effectiveness

Mitigation Measures

Traffix do not identify any mitigation measures for the proposed development due to the minimal impact of the proposal on local parking demand, traffic generation or adequacy of the design of the internal vehicular access and parking area. It is noted the implementation of the measures identified in the GTP will further reduce any impact generated by the proposal.

7.6. CIVIL ENGINEERING

7.6.1. Stormwater and Drainage

SEARs requirement

Northop have prepared a Civil Engineering Report in regard to the proposed development. This is provided at **Appendix DD**. The report has been prepared in response to SEARs Item 18, which requires a consideration of protection and management of water quality, flooding and stormwater quality. The SEARs also require the preparation of a stormwater management plan where required.

Assessment

A preliminary stormwater management strategy has been prepared for the proposed development. The strategy consists of both major and minor drainage systems in accordance with Council requirements:

- The minor drainage system is comprised of below ground pit and pipe network and is designed to control nuisance flooding and enable effective stormwater management for the site.
- The major drainage system will be designed to control and convey flows from the critical 1% AEP event. This incorporates suitably designed overland flow paths and drainage to direct flows into the OSD, system for all events up to the critical 1% AEP storm event.
- Flows generated on the site are proposed to discharge via a headwall and be conveyed overland towards the existing basin / pond.

It is noted that the entire roof catchment will drain directly to rainwater harvesting tank for the 1% AEP event, and all paved areas will include grated pits and drains. Assessment of the proposed system indicates that the system sufficiently conveys minor storm flows with safe provision for major system flows.

Modelling has been completed to demonstrate how the stormwater quality targets identified in Council's Water Sensitive Urban Design Policy will be achieved. The Civil Report identifies that the proposed stormwater treatment of storm filter cartridges and ocean pit insets achieves a reduction of 86.1% of suspended solids, 63.3% phosphorous, 45.2% nitrogen and 100% gross pollutants.

Mitigation Measures

The assessment concludes the proposed system will suitably convey minor and major stormwater flows and comply with Council water quality targets. Accordingly, no additional mitigation measures are required.

7.6.2. Flooding

SEARs requirement

SEARs Item 21 requires an assessment of flooding issues associated with the site to be undertaken. Where a material flood risk is identified in the assessment, design solutions for mitigation are to be included.

Northrop have prepared a Floodplain Management Report provided at **Appendix CC.** The report contains an assessment of the flood risk in accordance with the *NSW Floodplain Development Manual 2005* and the relevant Floodplain Risk Management Study for the College, Orth and Werrington Creeks Catchment prepared by Council.

Assessment

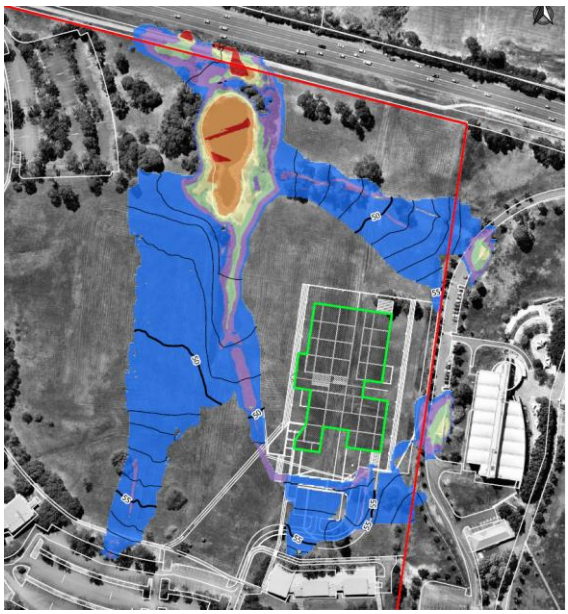
To determine the flood behaviour for the site and the impact on future development, a 2D TUFLOW flood model was developed for the site. Northrop identified the following flood behaviour that has the potential to impact the proposed development:

> *The overland flow traverses the site from upstream catchments to the east and south of the proposed building location. The flow behaviour in the existing case is primarily sheet flow with depths less than 100mm, with minor amounts of concentrated flow within a grass swale and local depressions. The flood behaviour across the subject site is categorised as Flood Hazard Risk H1 in accordance with the ARR guidelines*

The impact of the proposed development on flow behaviour and collection is illustrated in **Figure 19.** It is noted the development will impact flood collection to the east of the site on the adjacent WSU site due to a minor blockage of the design surface grading to the overland flow path. In this location a nominal increase of approximately 200mm is observed during the 1% AEP storm event. However, Northrop note that this can be mitigated during design development through inclusion of a stormwater inlet structure to enable the collection of flows without affecting the upstream water levels of the WSU site.

The minor blockage of the overland flow path will also result in a redirection of water towards the northern overland flow path during the PMF event. Whilst this area is currently unaffected during the PMF event, the water is entirely collected within the subject site and can be mitigated through measures identified below.

Figure 19 Flood behaviour



Picture 20 Developed case – 1% AEP flood depth and elevation contours

Picture 21 Developed case – 5% AEP flood depth and elevation contours

Source: Northrop

Additional findings of the report include:

- The 1% AEP flood level to be in the channel upstream of the existing dam at approximately 47.65m AHD. The proposed lower ground floor level of RL51.7 therefore exceeds the 1% AEP + 500mm freeboard level and complies with the requirements of the *NSW Floodplain Development Manual 2005*.
- The proposed structural components will be flood compatible.
- The proposed development will provide adequate refuge above the PMF level on the upper levels of the development.
- Given the location of the subject site, sea level rise is considered to not have any impact on the flood behaviour.
- Consideration for an increase in rainfall intensity was undertaken by assessing the 1 in 200 AEP storm events as part of the flood model assessment. It is observed that the increase in rainfall intensity did not have any significant impact on the flood behaviour observed in both the existing and developed cases.

Mitigation Measures

Northrop have identified the following mitigation measures to be considered during design development:

- Provision of stormwater infrastructure to capture and convey runoff during the 1% AEP peak flows generated from the southern upstream catchments around the proposed development.
- Provision of a suitable freeboard protection to the access road to prevent upstream surface runoff entering the loading dock.
- Provision of kerbs and hobs at the top of retaining walls to ensure stormwater runoff is directed to the pit and pipe network and reduce the likelihood of overland flows overtopping the walls.

7.7. ENVIRONMENTAL HAZARDS

7.7.1. Soil and Groundwater Contamination

SEARs requirement

SEARs item 13 requires that the proposal demonstrate compliance with SEPP 55 and contain an assessment and quantification of soil and groundwater contamination. The SEARs also require the provision of a Geotechnical Report relevant to the site.

A suite of geotechnical and contamination investigations have been carried out across the site and documented in the Preliminary Site Investigation prepared by JBS&G (**Appendix X**) and the Geotechnical Report prepared by PSM (**Appendix Y)**.

Assessment

Geotechnical Assessment

The Geotechnical Assessment prepared by PSM is based on site investigations which included ten boreholes drilled to a varying depth between 1m – 14.5m for groundwater level assessment. The water table has been estimated at approximately 3.46m below ground surface. No groundwater seepage was observed during the auguring of the boreholes.

Contamination

The PSI contains an assessment of the potential contamination of the site informed by the following investigations:

- Summary of site history between 1943 – current.
- Review of EPA records, and PFAS and asbestos register.
- Review of Section 10.7(2) and Section 10.7(5) certificates.
- Dangerous Good Search.

The PSI identifies areas of environmental concern (**AEC**) and contaminants of potential concern (**COPC**) for the site. AEC include the potential for imported fill, inappropriate demolition of site structures, former uses, natural material impacted as a result of COPC, and groundwater. COPC identified include heavy metals, PCBs, OCPs and asbestos.

The PSI assesses that the potential for these contaminants is low due to the low permeability of silty clay fill profile, the site's historical agricultural use and a review of site history. In regard to potential for contaminant migration, this risk is again considered low due to the site's existing sealed pavements, vegetation, and absence of liquid contaminant sources on the site. Concentrations of COPCs were not identified at levels posing an unacceptable risk to human/ecological receptors relating to the proposed development of the site.

A search of the NSW EPA contaminated land register and NSW contaminated sites notified to the EPA did not identify any notices relating to the site, or any potential for migration of contamination to the site from adjacent properties.

In summary, JBS&G conclude the site does not present a contamination risk of harm to human health or any other aspect of the environment. This finding does not warrant a further detailed investigation for the site. However, as fill is present at the site, implementation of an appropriate unexpected finds protocol for future development works would enable management of any unidentified contamination, if encountered.

Mitigation Measures

Typical site management controls including preparation of an Unexpected Finds Protocol (**UPF**) should be implemented during any ground disturbance works associated with future site development.

7.7.2. Salinity and Acid Sulphate Soil

SEARs requirement

SEARs Item 24 requires an assessment of salinity and acid sulphate soil impacts and requires the preparation of a Salinity Management Plan and/ or Acid Sulphate Soils Management Plan where relevant.

Response to this SEARs requirement is addressed in the Geotechnical Report prepared by PSM (**Appendix Y**) and the Salinity Assessment and Management Plan (**SAMP**) prepared by JBS&G **(Appendix Z**).

Assessment

Salinity Assessment

JBS&G have undertaken a review of the *Salinity Potential in Western Sydney* mapping prepared by the Department of Infrastructure, Planning and Natural Resources in 2003. This mapping indicates:

- The site exists within an area of 'moderate salinity potential' outside of drainage line areas.
- Within soils surrounding Werrington Creek located adjoining the north-western site boundary, a 'high salinity potential' is noted. JBS&G note that this is typical of Western Sydney, with an elevated level of salts occurring in soil due to underlying geological formations.

In addition, JBS&G undertake a site inspection on 17 November 2020. There was no indication of saline soils on the ground surface of the site during the inspection.

In accordance with the *Site Investigations for Urban Salinity* guidelines, JBS&G have assessed the level of salinity of the site through borehole testing and subsequent soil and groundwater sampling analysis. The results indicated:

- A total of 12 soil samples were submitted for analysis of salinity. Surface and shallow soils were classified as non-saline, while deep soils were classified as within the slightly saline range. An area of slightly to moderately saline soil is located within the western extent of the site.
- A total of 10 samples were submitted for analysis of aggressivity. All samples were identified within the non-aggressive range with respect to concrete piles and steel piles.
- A total of 10 samples were submitted for analysis of sodicity. The samples indicated the soils are considered to be sodic to highly sodic.
- One groundwater well was installed for analysis of salinity. The samples indicate the groundwater is characterised as saline.

The results indicate that while most of the site's soils is considered to be non-saline, there are areas of soil with slight to moderate salinity potential at deeper levels (>1m) and soils that are considered sodic to highly sodic. This represents a risk of highly erosive soil conditions upon disturbance.

As the development proposes cut and fill to achieve a level slab for the building footing, JBS&G identify that implementation of appropriate management controls for soil will be required, as well as consideration of additional requirements with regard to aggressivity ratings to maximise the lifetime of built structures and sub-surface infrastructure (such as drainage pits/ pipes, foundations) associated with the development.

Refer to mitigation measures identified below to manage the impact of saline soils.

Acid Sulphate Assessment

JBS&G have undertaken a review of the ESPADE acid sulfate soil risk mapping and identify that that the site is located within an area of 'no known occurrence of Acid Sulfate Soils'. Further, no visual or olfactory indicators of acid sulphate soils were identified during site inspections and borehole testings.

JBS&G therefore conclude no further consideration of acid sulphate soils on the site is required.

Mitigation measures

To manage the impact of saline soils and groundwater on the proposed development, JBS&G recommend the following management objectives:

- Preparation of a detailed Soil and Water Management Plan within a detailed CEMP, prepared prior to CC.
- Where excavation is undertaken to depths greater than 1.0 m, the subsoil materials should be identified prior to the commencement of works as material to be used as initial layers in areas of significant filling so as to replace the materials at a similar depth to that which they were sourced. Where possible, this material should be excavated and placed with minimum requirement for stockpiling and then immediately covered with soils known to be of low or no salinity risk and have low sodic properties.
- Topsoil in various areas of the site should be scraped into stockpiles in proximity to their source area and then returned to the various areas of the site rather than being mixed and randomly returned to various areas of the site.
- Where cut activities result in the exposure of moderately saline and/or highly sodic soils, application of topsoil and revegetation of these soils should be completed as a priority. This may require the works to be staged so as to minimise the duration of exposure.
- All site sediment and erosion controls should be established prior to the commencement of any vegetation clearance and/or soil disturbance activities.
- Where cut activities result in the exposure of subsurface soils, appropriate sub-soil drainage should be provided for batters, retaining walls etc to minimise the potential for saline seepage to down-gradient surface soils.
- All underground water supply, stormwater and sewage pipelines should be appropriately designed and installed so as to minimise the potential for future leakage to the subsoils.

7.7.3. Bushfire

SEARs requirement

SEARs Item 22 requires the preparation of a Bushfire Assessment Report for the proposed development. Council's Bushfire Prone Land Map identifies the site as partially containing the 100-metre buffer zone from Category 1 Vegetation and 30 metre buffer zone from Category 2 Vegetation in the site's south-western corner. It is noted that the location of the proposed works is outside of this buffer zone. Nevertheless, in accordance with the *Planning for Bushfire Protection 2019* (**PBP 2019**), the site is considered as 'bushfire prone' and as such is a relevant consideration for this SSDA.

In accordance with section 4.14 of the EP&A Act, SSDAs are exempt from conforming with the specifications and requirements of the PBP. Notwithstanding this, in accordance with the SEARs, a Bushfire Assessment Report has been prepared by Building Code & Bushfire Hazard Solutions and is provided at **Appendix Z.**

Assessment

In summary:

- The site is not located within a known fire path and the likelihood of a bushfire occurring within the immediate area is considered unlikely. However, the development is identified as 'Special Fire Protection Purpose' (**SFPP**) as the proposal involves the construction of an assembly building greater than 500sqm.
- The proposed building is located greater than 100 metres from any bushfire hazard and as such is categorised as "Low" Bushfire Attack Level. There are therefore no construction provisions applicable to the proposed building.
- Access for fire services and opportunities for occupant evacuation are considered adequate for the proposal.

In summary, Building Code & Bushfire Hazard Solutions conclude the proposal is consistent with the aims and objectives for SFPP as outlined in Section 6 of the PBP 2019.

Mitigation measures

It is recommended that a Bushfire Emergency Management Plan is prepared for the development, in addition to a number of recommendations relating to landscaping, servicing and access. These recommendations can be included as a condition of SSD consent.

7.8. INFRASTRUCTURE MANAGEMENT

7.8.1. Utilities and Services

SEARs requirement

SEARs Item 14 requires that the EIS address the existing capacity and future requirements of the development, including easement requirements, for the provision of utilities. In addition, the SEARs require the EIS to detail impacts to any existing assets of utility stakeholders from demolition/construction and mitigation measures where required.

JN Engineering have prepared a Utilities and Infrastructure Management Plan Report provided at **Appendix GG** to address Item 14 of the SEARs.

Assessment

JN Engineering undertook an assessment of the existing and augmented utilities required to service the development is provided. In summary:

- A new dedicated substation of 1000kVA will need to be provided on the site in accordance to service the anticipated maximum electricity demand. Further detail of the provision of this substation is currently being resolved, with consultation with Endeavour Energy currently underway to understand the existing HV network, line capacities and appropriate connection methodology. The location of this substation will similarly accord with Endeavour Energy requirements and the additional site-specific requirements outlined in the Utilities and Infrastructure Management Plan Report.
- The existing 80mm water meter located on the western boundary of O'Connell Street will be upgraded to 150mm water meter and water main connection to service the development. A formal Section 73 compliance certificate will be submitted. Refer to further discussion of water requirements in **Section 7.8.2.**
- Currently the site has a gas meter and piping system arrangement connected to the existing high-pressure gas main on O'Connell St. This existing connection at the Western boundary is expected to be retained and will be augmented to service the development.

Mitigation measures

Subject to the augmentation of existing physical assets outlined above, no further mitigation measures are required for augmentation and protection of existing utilities.

7.8.2. Water Usage and Service Demand

SEARs requirement

A number of SEARs items require the consideration of the servicing of water to the site, water usage and water conservation measures. Specifically, this includes SEARs item 14, SEARs item 16 and SEARs item 17. An Integrated Water Cycle Management Report and a Water Related Infrastructure Requirements Report have been prepared by JN Engineering and are provided at **Appendix EE** and **Appendix FF**.

Assessment

Water Servicing

JN Engineering have undertaken an assessment of the existing site services, and reported that the site is currently serviced by the 225mm VC sewer main located in the north-western corner of the site, as well as an 80mm water meter located at the Western boundary on O'Connell St.

An assessment of the domestic potable water services demonstrates that the existing 80mm water meter located on the western boundary of O'Connell Street will need to be upgraded to 150mm water meter and water main connection to service the development. From the upgraded water meter, a new water service will extend to the proposed building to service the occupants.

Sydney Water will be consulted with prior to the submission of a Section 73 certificate to determine the suitability of new connections and the required extent of the system. Following this, a formal Section 73 compliance certificate will be submitted (prior to OC). The installation of water servicing systems will be design in accordance with the requirements set out in Australian Standards, Sydney Water and Sydney TAFE NSW hydraulic services standards. Dial Before You Dig diagrams indicate no Sydney Water services are within close proximity to the proposed development. the proposal will not adversely impact existing water, wastewater or stormwater mains.

Water Usage

The proposed development aims to reduce potable water usage and implement water conservation methods where possible. The Integrated Water Cycle Management Report identifies the following measures proposed:

- Installation of a recycled rainwater installation system. Rainwater will be collected from the roof area catchment, conveyed to and discharge into a storage tank of approximately 80,000L capacity. The supply of treated rainwater will flush toilets and feed cooling towers. Overflow from the tank will connect to the stormwater drainage system and be conveyed to the point of discharge.
- A greywater collection and treatment system installation is to be provided to collect, treat and reuse greywater for landscape irrigation purposes.
- Clean fire service test water will be directed to the storage tank for collection, treatment and re-use. The water will be from fire hydrants and sprinkler testing that will discharge to a drainage system to convey the clean water to the rainwater storage tank.

Mitigation Measures

The proposed development and measures outlined in the reports described above represents a suitable consideration of water servicing and usage on the site, to ensure water is used suitably. No further mitigation measures are required.

7.8.3. Waste and Servicing

SEARs requirement

SEARs Item 25 requires the EIS to identify, qualify and classify the likely waste streams to be generated during the construction and operation of the development and describe the measures to be implemented to minimise, manage, reuse, recycle and safely dispose of this waste in accordance with relevant policies and guidelines.

A Construction and Operational Management Plan has been prepared by Waste Audit (**Appendix HH)** to assess the construction and operational waste management aspects of the proposed development. This

report and the classification of waste has been prepared in accordance with the EPA Waste Classification Guidelines.

Assessment

Construction

The Construction and Operational Management Plan estimates that demolition and construction of the proposed development will generate the following volumes of waste:

- Demolition waste volumes (tree removal, soil and rock excavation): 11,900m^3
- Construction waste volumes (material excess and general waste): 231.4m^3

It is noted that efforts will be made to reduce waste arising from construction activities, and Waste Audit estimate a potential resource recovery of 86.1% of construction waste through implementation of these practices.

Operation

To determine the spatial requirements for waste services and collection, the waste streams anticipated by the educational use were estimated. Waste types and generation were based on proposed floor space and educational activity. Waste Audit estimate a total generated waste volume of 835L per day. Storage of this waste will require a 13.6sqm area with approximately two collections per week.

The Waste Management Report sets out how waste will be appropriately stored and handled. Waste will be separated into core waste streams with waste receptacles provided on all floors for collection by a cleaning contractor and transferred to the 14sqm waste rooms located on Lower Ground, on the eastern elevation of the building. This is in direct proximity to the loading and waste collection area. General waste and recycling services will occur twice per week and where required for miscellaneous waste.

Mitigation Measures

Subject to the augmentation of existing physical assets outlined above, no further mitigation measures are required for management of construction and operational waste.

7.9. CONSTRUCTION MANAGEMENT

7.9.1. Construction Traffic Management

SEARs requirement

SEARs Item 7 requires the preparation of a Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of impacts in relation to construction traffic. Traffix have prepared a Preliminary Construction Traffic and Pedestrian Management Plan (**Preliminary CTPMP**) in response to this requirement, as provided at **Appendix T.** The report is a preliminary document that will be expanded upon and developed upon appointment of a contractor.

Assessment

An overview of the methods to manage pedestrian and vehicular safety during construction is identified in **Section 4.2.7**.

The Preliminary CTPMP identifies the anticipated construction vehicular movements during the site establishment (4-6 week period), bulk excavation (1 week period) and construction (60-65 week period) stages. Construction access during these stages will be provided from the adjacent WSU Werrington site, to enable efficient and safe access to the construction site from Great Western Highway. This approach is deemed the most suitable as this will have least impact on the operation of existing TAFE NSW buildings, noting that formalised access routes are already provided on the WSU site.

The movement of trucks during the site establishment and construction stages are considered minor with negligible impact on the surrounding intersections. During the bulk excavation stage, an increase in truck movements is expected however as this is a condensed period (1 week), this impact is similarly considered to have minimal impact on the surrounding area. A swept path analysis has been undertaken to demonstrate that satisfactory vehicle movements through key intersections within the WSU internal road network can be undertaken.

Pedestrian safety will be maintained during this period through permitter fencing and separated pedestrian access gates, which will be refined within the final CTPMP. Further, parking for construction employees will be provided within the TAFE NSW site.

Traffix note that no other development is currently under construction within the vicinity of the site (500m) or within the TAFE NSW or WSU boundaries. As such, the construction impacts of the development are anticipated to have minimal cumulative impacts.

Mitigation Measures

Subject to the implementation of the management measures identified in the Preliminary CPTMP and development of a final CPTMP upon appointment of a contractor, the proposal is not considered to result in impact on pedestrian and vehicular safety during construction.

7.10. SOCIAL AND ECONOMIC IMPACTS

7.10.1. Social Assessment

SEARs requirement

SEARs Item 11 requires the EIS to include a social impact assessment of the proposed development and any decanting activities if required. A Social Impact Assessment (**SIA**) has been prepared by Urbis in accordance with the technical requirements of the SEARs and is provided at **Appendix P.**

The SIA contains an assessment of the potential social impacts of the proposal, identification of the associated risk level and recommendation of mitigation measures where appropriate. The risk assessment methodology is obtained from the DPIE draft Social Impact Guidelines for State Significant Projects (2020).

Assessment

The SIA identifies the following key social impacts of the proposed development:

- **Increased access to education and training**: the development of the facility is expected to have a very high positive impact in the local community by creating new, tertiary education and training places in an area of identified need.
- **Increased local employment opportunities**: the development of the facility is expected to have a high positive impact by creating new, local employment opportunities in an area of identified need. The creation of additional TAFE NSW courses is expected to positively impact people's chances at securing forecasted job opportunities within key construction sectors, with research outlining that TAFE NSW graduates enter the labour force with better employment prospects and lower unemployment rates. This is expected to positively impact people's lives, given the current economic environment as of early 2021.
- **Access to transport:** The site is located within access to public transport modes including bus stops along O'Connell Street, and Kingswood station.
- **Integration with the community**: While on private land, the Nepean – Kingswood TAFE NSW campus forms part of the LGA's broader social infrastructure network. Currently, campus facilities can be hired by third parties when they are not in use, however most are likely to be focussed on commercial hire with an associated fee. While commercial facility agreements are beneficial, TAFE NSW could investigate ways to further enhance this program to establish shared-use agreements for community use and social wellbeing purposes.

Based on this assessment and the recommendations provided, it's likely that the proposal will generate a positive impact to the local community.

Mitigation measures

The following recommendations are provided to further manage the potential impacts from the proposal:

- Consider the provision of affordable enrolment opportunities (e.g., through scholarships or grants) for the local community, particularly for students within the suburbs immediately surrounding the site.
- Continually consult with the local community to help inform people about the educational offerings on site and to increase the presence of TAFE NSW within the area. This may also include an 'open day' prior to

opening the building to allow the local community to view the education facility and learn more about potential training opportunities.

- Investigate future opportunities to establish shared-use agreements for use of the grounds for community and social wellbeing purposes. This could look at ways to activate the site outside of regular hours, such as for community markets on weekends. This is not a requirement of the SSDA but could be investigated post approval as part of TAFE NSW's continual presence within the Kingswood – Penrith community.

These recommendations largely relate to the operation of the facility and as such will be considered by TAFE NSW during the post-determination period.

7.10.2. Economic Assessment

The delivery of the development is of significant economic benefit and directly responds to the need for additional and improved learning and teaching spaces to meet the demand for future TAFE NSW enrolments relevant to the construction industry. The development will provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development, which are of critical economic performance to Greater Sydney. The proposed facility is a significant benefit for the Penrith LGA.

Key economic benefits of the proposal include:

- The proposal will support a direct increase of approximately 88 new jobs on the site by 2030 (including 68 full time and 20 casual), in addition to employment generated through the construction of the proposal.
- The proposed will deliver positive externalities on the NSW economy through the training of up to 700 apprentices each year in construction trades experiencing the most growth. This will provide local job opportunities and employment pathways for the surrounding area.
- The training will provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development, which in themselves will generate significant and crucial economic benefits for the State. The provision of employment opportunities and pathways to employment opportunities is also consistent with Government policy to increase employment opportunities in the Western City District.
- The proposal will improve the quality and quantity of educational facilities across the State, reflecting the anticipated growth in total enrolments within TAFE NSW courses of almost 25% between 2020 and 2030, from 17,500 in 2020-21 to almost 22,000 enrolments per annum by 2029-30.
- The location of the proposed development in proximity to the key strategic centre of Penrith will support the growth and evolution of the strategic centre, which will further stimulate economic activity.
- The co-location of the site in proximity to WSU and the Penrith Health and Education Quarter supports opportunities for collaboration and further economic growth for the educational industry.

7.11. SITE SUITABILITY

The site is considered highly suitable for the proposed development for the following reasons:

- The land is zoned SP2 Educational Establishment pursuant to Penrith LEP 2012. The proposal is permissible with consent and consistent with the land use objectives of SP2 Educational Establishment zoning.
- The proposal is consistent with the objectives of all relevant planning controls and achieves a high level of planning policy compliance.
- The proposal provides a new educational establishment by redeveloping and expanding on the existing TAFE NSW campus and will further utilise what in comparison is an underutilisation of the site.
- There are no significant environmental constraints limiting development on the site that are unable to be avoided or mitigated.
- The development of the facility on the TAFE NSW Kingswood site allows for potential future integration with the adjacent WSU Werrington South campus, and facilitation of industry relationships and infrastructure efficiencies.

7.12. THE PUBLIC INTEREST

The proposed development is considered to be in the public interest for the following reasons:

- The proposal will support the establishment of the Penrith Health, Education and Institutional Quarter, and will strengthen institutional relationships between TAFE NSW and WSU, and secure functional relationships between the two.
- The proposal seeks to incorporate sustainable aspirations through ESD measures that aim to reduce carbon emissions, energy consumption, waste and utilise renewal energy.
- The proposal will support a direct increase of approximately 88 new jobs on the site by 2030 (including 68 full time and 20 casual), in addition to employment generated through the construction of the proposal.
- The proposal has been developed in consultation with SDRP and exhibits design excellence. It is high in quality in terms of built form and architectural treatment. It responds positively to the existing character and future scale of the area.
- The proposal seeks to integrate public art to connect with the Aboriginal community and provide tangible linkages to the site's Indigenous history.
- Subject to the various mitigation measures recommended by the specialist consultants, it does not have any unacceptable impacts on adjoining or surrounding properties or the public domain in terms of traffic, heritage, social and environmental impacts.

8. ENVIRONMENTAL RISK ASSESSMENT

8.1. RISK ASSESSMENT

The SEARs require an environmental risk assessment to identify the potential environmental impacts associated with the proposed development. Each potential impact has been assessed based on significant of impact and likelihood of impact, with the sum providing an indicative risk level of very low, low, medium or high associated with the impact. The risk assessment matrix adopted is illustrated in **Figure 20**.

Figure 20 Risk assessment matrix

		LIKELIHOOD				
		A – ALMOST CERTAIN	B – LIKELY	C – POSSIBLE	D – UNLIKELY	E – RARE
SIGNIFICANCE	1	High	High	Medium	Low	Very Low
	2	High	High	Medium	Low	Very Low
	3	Medium	Medium	Medium	Low	Very Low
	4	Low	Low	Low	Low	Very Low
	5	Very Low	Very Low	Very Low	Very Low	Very Low

The results of the environmental risk assessment are provided in **Table 18.** Following the application of each of the mitigation measures, there are no risks which are identified as high or medium risk. It is noted that a further update on the ACHAR will be provided once complete. Where necessary, this will contain an update on the environmental risk assessment associated with any identified impact.

Table 18 Environmental risk assessment

Aspect	Potential Impact	Significance	Likelihood	Risk Level
Design excellence	The development does not achieve design excellence.	3	D	Low
Crime prevention	Potential for crime and perception of crime.	3	D	Low
European heritage	Potential impact on significance of heritage items (construction).	3	D	Low
	Potential impact on significance of heritage items (operation).	3	D	Very low
	Potential view impacts on heritage items and heritage setting of site.	4	D	Low
European archaeology	Potential impacts on archaeological places of significance (construction).	3	D	Low
Overshadowing	Overshadowing of adjacent properties and loss of solar access.	3	D	Low

Aspect	Potential Impact	Significance	Likelihood	Risk Level
Traffic and transport	Increase in traffic on local roads (construction).	3	D	Low
	Increase in traffic on local roads (operation).	3	D	Low
	Additional demand for on-street parking (construction and operation).	3	D	Low
Pedestrian amenity	Conflict with pedestrian, cyclists and vehicles (construction).	2	D	Low
	Conflict with pedestrian, cyclists and vehicles (operation).	2	D	Low
Acoustic	Adverse noise impacts within the development from the road network.	2	D	Low
	Adverse external noise impacts from proposed development (construction).	3	D	Low
	Adverse external noise impacts from proposed development (operation).	3	D	Low
Drainage and flooding	Site flooding and risk to life.	2	D	Low
Waste	Waste production (construction).	3	D	Low
	Waste production (operation).	3	D	Low
Utilities	Adequate connection to utilities and adequate infrastructure capacity.	2	D	Low
Contamination	Exposure of contamination or hazardous materials (construction).	2	D	Low
Salinity	Exposure of saline soils and degradation of building materials	3	D	Low
ESD	Irreversible increase in energy usage (operation).	3	D	Low
Social impact	General disruption to community associated with large scale development (construction).	3	D	Low
	Inadequate access.	2	D	Low

8.2. MITIGATION MEASURES

The measures identified to mitigate potential environment impacts of the proposed development are described in detail within the Environmental Impact Assessment in **Section 7** and summarised in **Table 19.**

Table 19 Mitigation measures

Aspect	Potential Impact	Mitigation measures
Design excellence	The development does not achieve design excellence.	▪ Maintain engagement with the SDRP and retention of key elements of design excellence through the design development of the scheme.
Crime prevention	Potential for crime and perception of crime.	▪ Implement the design recommendations provided in the CPTED Report at **Appendix O.**
European heritage	Potential impact on significance of heritage items (construction).	▪ No mitigation measures are deemed necessary.
	Potential impact on significance of heritage items (operation).	▪ No mitigation measures are deemed necessary.
	Potential view impacts on heritage items and heritage setting of site.	▪ No mitigation measures are deemed necessary.
European archaeology	Potential impacts on archaeological places of significance (construction).	▪ Implementation of an Archaeological Chance Find Procedure should any significant archaeological resource that would have the potential to meet the requirement for being a relic be uncovered. ▪ Implementation of a Human Remains Procedure should human remains be uncovered.
Overshadowing	Overshadowing of adjacent properties and loss of solar access.	▪ No mitigation measures are deemed necessary. As discussed in **Section 7.3.1**, the proposal does not result in an adverse impact to solar access.
Traffic and transport	Increase in traffic on local roads (construction).	▪ Implement a Construction Traffic Management Plan.
	Increase in traffic on local roads (operation).	▪ No mitigation measures are deemed necessary.
	Additional demand for on-street parking (construction and operation).	▪ No mitigation measures are deemed necessary.
Pedestrian amenity	Conflict with pedestrian, cyclists and vehicles (construction).	▪ Implement a Construction Traffic Management Plan.
	Conflict with pedestrian, cyclists and vehicles (operation).	▪ Clear delineation between safe walking and cycling routes during the detailed design of the proposed development.

Aspect	Potential Impact	Mitigation measures
Acoustic	Adverse noise impacts within the development from the road network.	▪ Limited operation of mechanical plant during night-time, selection of low noise units and acoustic lining. ▪ Use of acoustic rated walls and attenuation for extraction fans. ▪ Restriction on use of outdoor workshops to between 7am – 6pm. ▪ Compliance with the Construction Noise and Vibration Management Plan principles identified in the Noise and Vibration Impact Assessment.
	Adverse external noise impacts from proposed development (construction).	
	Adverse external noise impacts from proposed development (operation).	
Drainage and flooding	Site flooding and risk to life.	▪ Implement the recommendations of the Floodplain Management Report at **Appendix CC** and Civil Engineering Report at **Appendix DD.**
Waste	Waste production (construction).	▪ Implement the construction aspects of the Waste Management Plan at **Appendix HH.**
	Waste production (operation).	▪ Implement the operation aspects of the Waste Management Plan at **Appendix HH.**
Utilities	Adequate connection to utilities and adequate infrastructure capacity.	▪ Adopt the recommendations of the Utilities and Infrastructure Management Plan at **Appendix GG.**
Contamination	Exposure of contamination or hazardous materials (construction).	▪ Implement the recommendations of the Preliminary Site Investigation at **Appendix X** and the Geotechnical Assessment at **Appendix Y.**
Salinity	Exposure of saline soils and degradation of building materials	▪ Preparation of a detailed Soil and Water Management Plan within a detailed CEMP, prepared prior to CC. ▪ Implementation of recommendations of the Salinity Assessment and Management Plan at **Appendix Z.**
ESD	Irreversible increase in energy usage (operation).	▪ Adhere to the recommendations within the ESD Report at Appendix V and implement the TAFE NSW CCE Sustainability Framework.
Social impact	General disruption to community associated with large scale development (construction).	▪ Ongoing communication with the community to ensure residents are informed of construction progress and site activities. ▪ Preparation and maintenance of a Complaints Handling Procedure
	Inadequate access for people with a disability.	▪ Ensure adherence to BCA, accessibility objectives under the BCA, Disability (Access to Premises – Buildings) Standards 2010 (Premises Standards), and the relevant

Aspect	Potential Impact	Mitigation measures
		Australian Standards as they relate to access to premises and the intent of the *Disability Discrimination Act 1992* during the detailed design of the proposed development.

9. EVALUATION AND CONCLUSION

This EIS has been prepared by Urbis on behalf of TAFE NSW to accompany a SSDA for an educational facility at 2-44 O'Connell Street, Kingswood. The proposal involves the construction and operation of the TAFE NSW Construction Centre of Excellence a multi-level, integrated educational facility specifically designed to accommodate specialised training and education for construction-related TAFE NSW courses. The TAFE NSW CCE will comprise a three-storey building and separate at-grade car park and loading area located within the existing TAFE NSW Kingswood campus.

This EIS has comprehensively assessed the environmental, social and economic impacts of the design, delivery and operation of the proposed development. The EIS has addressed the issues identified in the SEARs (**Appendix A)** and Schedule 2 of the EP&A Regulations. This EIS is submitted to the NSW DPIE pursuant to Part 4 of the EP&A Act and will be determined by the Minister of Planning or their delegate as the consent authority.

The project seeks to respond to the need for additional and improved learning and teaching spaces to meet the demand for future TAFE NSW enrolments relevant to the construction industry and provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development. The project will also bring together educational facilities and industry engagement to provide pathways to post-university employment and more closely align skills with industry requirements. In doing so, this will create relationships between students, industry and the commercial sector to create broader institutional synergies and opportunities for collaboration.

Overall, the assessment presented in this EIS demonstrated that the proposed development sought within this SSDA is appropriate for the site and warrants approval from the Minister for Planning for the following reasons:

- The proposal will support a direct increase of approximately 88 new jobs on the site by 2030 (including 68 full time and 20 casual), in addition to employment generated through the construction of the proposal. The proposal will generate positive externalities on the NSW economy through the training of up to 700 apprentices each year in construction trades experiencing the most growth. This will provide local job opportunities and employment pathways for the surrounding area. The training will provide a skilled workforce to enable the successful execution of the significant amount of major Western Sydney revitalisation programs that are in various stages of planning and development, which in themselves will generate significant and crucial economic benefits for the State.
- The proposal will improve the quality and quantity of educational facilities across the State, reflecting the anticipated growth in total enrolments within TAFE NSW courses of almost 25% between 2020 and 2030, from 17,500 in 2020-21 to almost 22,000 enrolments per annum by 2029-30.
- The proposal is consistent with strategic planning supported by all levels of government to deliver additional educational facilities that closely align with industry requirements and future skills requirements for employment opportunities. The strategic justification for the proposal is further reiterated by the NSW Government 2019 announcement for the direct need for the project and associated commitment of public funding to ensure its timely delivery.
- The proposal integrates with both the existing and future character of the TAFE NSW Kingswood site and the surrounding context. The siting of the proposed building footprint and development of the building envelope has had regard to the TAFE NSW Kingswood Structure Plan, and the opportunities for future infill within the site. The permeable nature of the eastern façade similarly enables future connectivity with the WSU Werrington site as this develops into the future.
- The built form is within the planning envelope controls contained within the Penrith LEP 2010 which result in a building form that has been contemplated for the site. Further, the building design has addressed the recommendations of the SDRP and provides a cohesive design response which exhibits design excellence.
- The site is largely free of environmental constraints including contamination, acid sulphate and salinity and as such is suitable to accommodate an educational facility.
- The large scale of the site and the low-density character of the surrounding area ensures the proposed development will not have any direct interfaces with sensitive uses, and the built form will not adversely impact acoustic amenity, visual amenity, privacy or solar access.

- An assessment of the European heritage and archaeology of the site indicates the proposal will have no impact on identified or potential items of significance. Ongoing updates on the outcomes of the Aboriginal consultation and cultural heritage assessment process will be provided to the DPIE throughout the assessment process.
- The proposal will not have an adverse impact on traffic, access, public transport or pedestrian amenity within the surrounding area. Due to the large scale of the site and the existing provision of 907 car spaces on the site (in addition to the 16 proposed within this application for a total of 923 spaces), the site suitably accommodates the additional demand for car parking resulting from the project and will not impact car parking capacity and utilisation on streets within a 400m radius. Further, the traffic modelling demonstrates the traffic volume generated by the proposal will not significantly impact the surrounding road network during the 2026 and 2030 development scenarios – and as such no infrastructure upgrades are required beyond the proposed amendments to the Gate 2 access.
- The preparation of a Green Travel Plan and identification of sustainable transport modes will encourage the use of non-car mode share for students and employees when travelling to and from the site.
- The proposal has been designed with sustainability targets focused on reducing carbon emissions, reuse of water, energy and waste flows, and consideration of climate change impacts to ensure the adaptability of the building into the future. The exhibition of best practice environmental performance within an educational facility will similarly influence sustainable outcomes in future educational facilities.
- Construction management measures have been identified within the preliminary Construction Traffic and Pedestrian Management Plan prepared for the project, ensuring the amenity of the existing area and surrounding sites is maintained throughout the construction of the development. This plan further ensures the safety of pedestrians, cyclists and general motorists in the surrounding area.
- Consultation with service providers demonstrates that the site can be connected to all required utilities and infrastructure. Where required, services will be augmented to accommodate the increased capacity.

With the adoption of the proposed mitigation measures, the risk assessment identifies that all risks are categorised as ‘very low’ or ‘low’. Detailed environmental assessment of these risks has been undertaken in the preparation of this SSDA package and the risk levels associated with these aspects of the development have been considered, and on balance the benefits of the project significantly outweigh these risks.

In view of the above, we submit that the proposal is in the public interest and should be approved subject to appropriate conditions.

DISCLAIMER

This report is dated March 2021 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd **(Urbis)** opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of NSW TAFE **(Instructing Party)** for the purpose of State Significant Development Application **(Purpose)** and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

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APPENDIX KK PUBLIC ART INDICATIVE PROPOSAL