

HEALTH INFRASTRUCTURE

Review of Environmental Factors

World Class End of Life (WCEoL) Project – Westmead Hospital

Prepared by _planning Pty Ltd

September 2024

Version Number 02



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Declaration

This Review of Environmental Factors (REF) has been prepared for NSW Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from proposed alterations and additions to the existing Level 4 plantroom’s rooftop on the Central Acute Services Building (CASB) at Westmead Hospital to accommodate the new 15-bed palliative and supportive care unit as part of the World Class End of Life (WCEoL) Project. The unit is proposed as an extension to, and new habitable floor level on top of, the existing Level 4 plantroom’s rooftop and will become Level 5 of the podium of the existing building.

This REF has been prepared in accordance with the relevant provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment and the information it contains is neither false nor misleading. It addresses to the fullest extent possible all the factors listed in Section 3 of the *Guidelines for Division 5.1 Assessments* (DPE June 2022), the *Environmental Planning and Assessment Regulation 2021* and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Based upon the information presented in this REF, it is concluded that, subject to adopting the recommended mitigation measures, it is unlikely there would be any significant environmental impacts associated with the activity. Consequently, an *Environmental Impact Statement* (EIS) is not required.

Declaration	
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Document Management, Tracking and Revision History

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Appendices

Appendix	Description	Author	Rev/Ref/Date
A	Planning Certificate	Parramatta City Council	Dated 9/10/2023 Certificate No. 2023/7232
B	Architectural Design Statement	BVN	Dated 13/9/2024 Rev 01
C	Landscape Design Statement	Context	Dated 19/8/2024 Rev C
D	ESD Report	Stantec	Dated 1/7/2024 Ref 301351421 Version 1
E	Architectural Drawings	BVN	Location Plan 01A-NL00001 Rev C dated 16/8/2024
			General Arrangement Level 05 11B-0500001 Rev D dated 16/8/2024
			General Arrangement Level Roof 11B-0500002 Rev D dated 16/8/2024
			Façade Elevations 11C-0500001 Rev D dated 16/8/2024
			3D Views / Building Massing 40A-NL00001 Rev C dated 16/8/2024
			Site Plan Rev C dated 19/8/2024
			Materials Palette Rev C dated 19/8/2024
			Planting Palette Rev C dated 19/8/2024
			Detail Landscape Plan - Eastern Garden Rev C dated 19/8/2024
			Detail Landscape Plan - Reflection Garden Rev C dated 19/8/2024
			Detail Landscape Plan - Staff Retreat Rev C dated 19/8/2024
			Detail Landscape Plan - The Verandahs Rev C dated 19/8/2024
			Detail Landscape Plan - Western Garden Rev C dated 19/8/2024
			Western Garden Section 1 Rev C dated 19/8/2024
			Western Garden Section 2 Rev C dated 19/8/2024
F	Landscape plans and drawings	Context	Eastern Garden Section 3 Rev C dated 19/8/2024
			Reflection Garden Section Rev C dated 19/8/2024
			Staff Retreat Section Rev C dated 19/8/2024
			The Verandahs Section Rev C dated 19/8/2024
			Eastern Garden Section 3 Rev C dated 19/8/2024
			Vent Stack Screening Rev C dated 19/8/2024
			SKES-001 COVER SHEET Rev A dated 2/7/2024
			SKES-100 LEVEL 04 - POWER RETICULATION LAYOUT Rev A dated 2/7/2024
			SKES-101 LEVEL 05 - POWER & COMMUNICATIONS LAYOUT Rev A dated 2/7/2024
			SKES-200 LEVEL 04 - COMMUNICATIONS RETICULATION LAYOUT Rev A dated 2/7/2024
G	Electrical Drawings	Webb	SKES-201 LEVEL 05 - COMMUNICATIONS RETICULATION LAYOUT Rev A dated 2/7/2024
			SKES-202 LEVEL 06 - COMMUNICATIONS RETICULATION LAYOUT - SHEET 1 Rev A dated 2/7/2024

			SKES-203 LEVEL 06 - COMMUNICATIONS RETICULATION LAYOUT - SHEET 2 Rev A dated 2/7/2024
			SKES-300 SINGLE LINE DIAGRAM - MSB-L04-01 Rev A dated 2/7/2024
			SKES-301 SINGLE LINE DIAGRAM - MSB-L04-02 Rev A dated 2/7/2024
			SKES-302 SINGLE LINE DIAGRAM - MSB-L04-03 Rev A dated 2/7/2024
			SKES-303 SINGLE LINE DIAGRAM - MSB-L04-04 Rev A dated 2/7/2024
			SKES-304 SINGLE LINE DIAGRAM - UPS Rev A dated 2/7/2024
			WSCE-HY-DD-0000 COVER SHEET Rev 1 dated 3/7/2024
			WSCE-HY-DD-0200 LEVEL 5 PLAN - DRAINAGE SERVICES Rev 1 dated 3/7/2024
H	Hydraulic Drawings	WSce	WSCE-HY-DD-0201 ROOF PLAN - DRAINAGE SERVICES Rev 1 dated 3/7/2024
			WSCE-HY-DD-0300 LEVEL 5 PLAN - PRESSURE SERVICES Rev 1 dated 3/7/2024
			WSCE-HY-DD-0400 DETAIL SHEET Rev 1 dated 3/7/2024
I	Mechanical Services Drawings	Erbas	Mark-up on LEVEL 04 PLANTROOM ZONE 4 AHU / PIPEWORK LAYOUT – SK-M02 Rev P1 dated 1/7/2024
			Mark-up on GENERAL ARRANGEMENT – LEVEL 05 – SK-M01 Rev P2 dated 1/7/2024
J	Preliminary Construction Management Plan	HI / Capital Insight	Dated September 2024
K	Notification letters and Plans	HI / BVN	Dated 21 August 2024
L	Submission and HI Response to Submission	Community member / HI	27/8/2024 and 17/9/2024
M	Communications & Engagement Action Plan	HI	April 2024
	Consultation – Aboriginal Consumer Group		April 2024
N	Transport Assessment	Stantec	Dated 25/9/2024 Rev C
O	Noise and Vibration Assessment	Acor	Dated 16/9/2024 Ref: NA230258
P	AHIMS Search	NSW Government	Dated 18/9/2024
Q	Statement of Heritage Impact	Artefact	Dated 15 August 2024 Revision 2.
R	Preliminary Waste Management Plan	HI	Dated 9 September Ref: Version 02 Draft
S	BCA Assessment Report	BM+G	Dated 21/8/2024 Revision 3 Reference: 230221
T	Structural Adequacy Certification	TTW	Letter dated 26/8/2024
U	Aviation advice	AviPro	Letter dated 21 November 2024
V	Qualitative Wind Assessment	CPP Wind Engineering Consultants	Dated 30/11/2023 Rev R01
W	Summary of Mitigation Measures	HI / _planning	26 September 2024

Abbreviations

Abbreviation	Description
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System BC Regulation
AMG	Australian Map Grid
BC Act 2016	<i>Biodiversity Conservation Act 2016</i>
BC Act 2017	<i>Biodiversity Conservation Act 2017</i>
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	<i>Coastal Management Act 2016</i>
CMP	Construction Management Plan
CWC	Connecting with Country
CRA	Conservation Risk Assessment
DPC	Department of Premier and Cabinet
DPE	Department of Planning and Environment
DPHI	Department of Planning, Housing & Infrastructure
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EES	Environment, Energy and Science
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection License
FM Act	<i>Fisheries Management Act 1994</i>
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	Health Infrastructure
LEP	Local Environmental Plan
LHD	Local Health District
LGA	Local Government Area

Abbreviation	Description
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance
NCC	National Construction Code
NorBE	Neutral or Beneficial Effect on Water Quality Assessment Guideline (2022)
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	<i>Commonwealth Native Title Act 1993</i>
OEH	(Former) Office of Environment and Heritage
PCMP	Preliminary Construction Management Plan
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Proponent	NSW Health Infrastructure
REF	Review of Environmental Factors
RF Act	<i>Rural Fires Act 1997</i>
RFS	Rural Fire Service
Resilience and Hazards SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
TI SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
WM Act	<i>Water Management Act 2000</i>

Executive Summary

The Proposal

The Westmead Hospital WCEoL Project proposes alterations and additions to the existing Level 4 plantroom's rooftop on the Central Acute Services Building (CASB) at Westmead Hospital to accommodate the new 15-bed palliative and supportive care unit. The unit is proposed as an extension to, and new habitable floor level on top of, the existing Level 4 plantroom's rooftop. The addition will become Level 5 of the podium of the existing CASB (also known as Block K) at the hospital. The proposed location enables both direct linkages with the hospital's acute care facilities, and an outlook and amenity for patients.

The addition is approximately 1,600m² of useable area to the new Level 5 extension with the final total floor area to be determined through the detailed design process.

The hospital presently provides no dedicated palliative care beds with palliative care services currently provided through the Cancer Network in partnership with Nepean, Blacktown/ Mount Druitt, Auburn, Hawkesbury, and Blue Mountains Hospitals within the Western Sydney Local Health District (WSLHD) and adjacent LHDs.

The proposal involves 14 new bedrooms with ensuites to cater for the 15 new beds. An additional 34 full time equivalent (FTE) staff members (including nursing, administration, allied health and other support staff) will be required.

The proposal also involves a new external rooftop landscaped terrace of about 75m² area; a lounge; dining room; and a beverage bay as shared inpatient areas, along with a multi-faith prayer room. Ancillary clinical support areas are also to be provided.

Need for the Proposal

The project forms part of the NSW Health End of Life Palliative Care Framework 2019-2024; Clinical Principles for End of Life and Palliative Care (NSWH, GL2021_016); and the Palliative Care Blueprint (Agency for Clinical Innovation). In the 2022-23 NSW State Budget, the Government announced \$93 million for a WCEoL program, as part of a larger \$743 million commitment to ensuring NSW has the best palliative care services and support in Australia, if not the world. As part of the program, new units have been announced for Westmead Hospital, Nepean Hospital, Wyong Hospital, Orange Health Service and Tamworth Hospital.

There is increasing demand for end of life and palliative care beds. As the NSW population ages and the prevalence of cancer and other chronic diseases increases, the demand and choice for quality end of life and palliative care services will grow and increase pressure on the NSW hospital system.

In the five-year period between 2015-16 and 2020-21, palliative-related hospitalisations have increased by 23%, and the rate of palliative care hospitalisations has grown by 11% per 10,000 population. Other end of life hospitalisations have grown by 20% per 10,000 population. Between 2021-41, the number of people in NSW over 85 years of age is projected to increase by 136%. Annual deaths in NSW are projected to increase by 30%¹ over the same period and almost double by 2061.

Several ongoing service challenges for end of life and palliative care services are also impacting the ability of the NSW hospital system to cater for service demand, including:

- Inequitable access to dedicated inpatient beds for end of life and palliative care services, and the use of spaces that are not designed to support best practice models of care.
- Complicated referral pathways and constrained access to specialist multidisciplinary intervention for complex patients, resulting in inefficiency and un-coordinated care.
- Ongoing pressure to maintain patient outcomes and the patient experience for their end of life phase, and to provide choice for patients and their families and carers to accommodate individual needs.
- An enhanced presence for end of life and palliative care services within NSW hospitals will support:
 - well coordinated, multidisciplinary, integrated, and holistic service, particularly in other health facilities (inpatient and community health centres) within each District to ensure patient-centric care.

- rapid provision of diagnostic or therapeutic interventions, and referral to other services (psycho-social care, community-based services, inter-agency involvement etc).
- improved medication management (polypharmacy) leading to better outcomes, fewer medication errors, reduction in medicines waste.
- facilities to support staff education and research opportunities.
- The ability to support end of life and palliative care staff and patient families by providing critical training to care for their loved one at home.
- Catering for specific cultural and spiritual sensitivities of patients, carers and their families.

Further, there are inequities in access to dedicated beds. Many patients in the eastern sector of the WSLHD must access inpatient end of life and palliative care services by presenting in crisis to the emergency department despite being known to the Palliative Care services. WSLHD caters for approximately 70% of its residents demand for inpatient care (SRG 86 Palliative Care), with the majority activity outflows serviced by St. Josephs, Auburn (17%), or Nepean, Ryde, Concord and other hospitals (13%).

Generally, the project object is to provide more end of life and palliative care beds for people requiring short-term, high-care beds and improved access to end of life and palliative care in Western Sydney. The program also seeks to increase hospital capacity and implementation of best-practice models for supportive and palliative care, improve access to pain management services for patients with life-limiting illness; improve services for people with late stage chronic and degenerative conditions, and including cancer; provide greater support for consumer choice in end of life and palliative care and provide greater support for carers and families of patients in the end of life phase.

To address the above, HI proposes to provide a new 15-bed palliative and supportive care unit at Westmead Hospital as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities consistent with the WCEoL program.

Proposal Objectives

World Class End of Life Care provides patients with access to best quality care in a home-like environment to provide spaces which optimises quality of life. Palliative care is unique as it cannot cure, however it can reduce the severity of symptoms and suffering of patients with serious illness. In addition it can provide spaces which enable families to be together in a calm, tranquil environment. Access to natural light, fresh air, access to outdoors to provide the best quality of life for the time left.

HI's Design Principles applicable to all NSW projects have been applied. These generally set out the objectives of the development along with the specific need to provide additional palliative care spaces in a growing population catchment.

The HI Design Principles are:

- Design for dignity.
- Design for wellbeing.
- Design of efficient and flexible delivery of care.
- Design for longevity and resilience.
- Safety and security.
- Design with Country.
- Design for the neighbourhood and surrounding environment.
- Design for connection.
- Design for sustainability.

These principles were tailored by BVN (the project's architect) to suit the needs for palliative and supportive care to form the benchmark for the project.

Options Considered

A **master plan** was developed for the WCEoL program at Westmead. The master plan developed a set of principles which were established as part of a collaborative engagement process with the stakeholder group and responded directly to the shared aspiration to create a people-centred, healing environment. The master plan considered future visions for location and operation of the site. For the Westmead campus, four (4) locations were considered to locate the new palliative and supportive care unit, with all new unit locations on rooftop locations given the density of the Westmead campus. The rooftop above the plantroom of the CASB was selected as the preferred location for the World Class End of Life palliative and supportive care unit.

At commencement of the **concept design** BVN consolidated consultant team feedback on the preferred masterplan option to inform the design. The location of the unit was pulled south to resolve a number of infrastructure, access and services coordination issues.

Workshop 1 reviewed three (3) options which tested WSLHD responses to location of bedrooms and communal spaces within the unit. Staff areas for all 3 options were located above the transformers.

After some post-meeting adjustments responding to user feedback – Option 2 was selected as the preferred option to take further into Schematic Design.

During **schematic design** a series of workshops took place to provide deeper understanding of the following:

- Existing structure and services
- Changes required to building envelope
- Bedroom configurations
- View and access to outdoor space
- Detailed function of each space
- Clear understanding of staff and patient flow
- Public interaction with the space
- Materiality and interior design
- Furniture and joinery arrangement
- Maintenance and security of the unit

During this process BVN continued to develop the design with the principles agreed during previous phases of the design:

- Rooms should have large windows for patient outlook and maximise daylight within the room. Rooms, where possible, should have direct access to outdoor space to enable the patient to be taken by bed or by chair to the balcony area.
- Facade design studies to suit the new layout and provide openings for every bedroom and communal space has been undertaken.
- Rooflights provided where possible at key communal, staff and entry spaces.
- Landscape areas, bedroom external spaces, communal courtyard and staff courtyard spaces to be maximised where possible.

The schematic design developed the clinical planning, facade, landscape and interior design over three workshops. Following additional LHD comments in Workshop 3, the layout was updated for Option 2.

Generally, the location was selected given it:

- Provides the functional design briefed area.
- Supports the endorsed model of care with connectivity into the CASB.
- Provides safe and high-quality care.
- Provides culturally sensitive care.
- Provides access to expansive courtyards dedicated to palliative care.

The palliative unit footprint is designed to connect into the CASB cores on both the east and west sides of the building. The volume is located south to maximise rooftop gardens for patients, families, visitors and staff to the north.

Site Details

Westmead Hospital is located at the corner of Hawkesbury Road and Darcy Road in Westmead, just west of Parramatta CBD, in Western Sydney. The site (the whole of Westmead Hospital) is legally described as Lot 1 DP 1194390 and is some 28.5 ha in area. The site is located within the Parramatta LGA and the WSLHD.

The CASB (also known as Block K) forms part of the overall development of Westmead Hospital. The CASB sits to the north-east of the original hospital buildings and between it and The Children's Hospital at Westmead further to the north-east along Hawkesbury Road. The building is set back behind the Westmead Institute for Medical Research, and the Children's Medical Research Institute at the Hawkesbury Road frontage.

The locality is generally dominated by the hospital and its adjacent health services facilities, including The Children's Hospital at Westmead and Westmead Private Hospital. Other educational and medium to high density residential uses flank the hospitals generally to the south-east and west.

The NSW Government Gazette of 12 July 2019 identifies a significant number of NSW hospital sites acquired by the Health Administration Corporation (HAC) for the purposes of the *Health Administration Act 1982* as at that date. This includes the former lot and DP listed as follows as forming 'Westmead Hospital'. This acquisition has brought the hospital into HAC ownership.

Westmead Hospital Darcy Road / Hawkesbury Road, Westmead 2145 - 1 DP 1090838
HEALTH COMMISSION OF NEW SOUTH WALES
1/DP1090838

Planning Approval Pathway

Section 4.1 of the EP&A Act states that if an Environmental Planning Instrument (EPI) provides that development may be carried out without the need for development consent, a person may carry the development out, in accordance with the EPI, on land to which the provision applies. However, the environmental assessment of the development is required under Part 5 of the Act.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP) aims, amongst other things, to facilitate the effective delivery of infrastructure across the State. Chapter 2 Division 10 of TISEPP outlines the approval requirements for health service facilities. A "hospital" is defined as a health service facility under this division.

The site is zoned 'SP2 – Health Services Facility' under *Parramatta Local Environmental Plan 2023*. The SP2 zone is a prescribed zone under the TISEPP.

The proposal involves the alterations of, or additions to, a building that is a health services facility, which is classified as development without consent as the proposed activity is consistent with section 2.61(1)(a), as well as section 2.61(2) of TISEPP. Ancillary works are able to be carried out in the same manner through section 2.3(3) of the TISEPP. The proposed addition to the Level 4 podium rooftop to create the new Level 5 for the project will not increase the existing height of the building, nor bring it closer to any property boundary.

Therefore, the proposal is considered an 'activity' for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment via the REF process.

Consultation and Engagement

The REF scope of works was notified on 21 August 2024 for 21 calendar days concluding on 11 September 2024. In total, 130 letters were placed in letterboxes of adjoining occupiers of land or otherwise hand delivered. Parramatta City Council was also notified.

The following addresses (all unit blocks of various heights and densities) directly opposite the CASB were notified by letterbox drop:

- 32 Jessie Street, Westmead
- 27 Helen Street, Westmead
- 31 Helen Street, Westmead

- 29 Helen Street, Westmead
- 191 Hawkesbury Road, Westmead
- 189 Hawkesbury Road, Westmead
- 185 Hawkesbury Road, Westmead
- 181 Hawkesbury Road, Westmead

One (1) public submission was received concerning whether night-time works are proposed and what development / construction traffic impacts upon Hawkesbury Road would be anticipated. Parramatta City Council did not respond to the notification process.

Extensive non-statutory community and stakeholder engagement has occurred with respect to this project since its inception with a range of internal and external stakeholders, including Aboriginal community representatives.

Environmental Impacts

The environmental impacts of the works are limited given the relatively modestly-scaled nature of the works in the context of the density and clustering of development at Westmead Hospital. The most significant impacts identified to arise relate to construction noise and vibration, and other general construction impacts.

Construction noise is likely to impact a range of internal hospital uses. Given the location and orientation of the works and the significant distances to external neighbouring land uses, including residential uses, it is highly unlikely any noise or other construction impacts will be highly discernible outside of the hospital. Management and mitigation will be applied to limit any likely impacts. Construction vibration will be localised to within the subject hospital building and management and mitigation will again need to be applied to reduce adverse impacts upon sensitive activities and patients within the hospital.

Impacts upon vegetation, biodiversity, heritage, Aboriginal cultural heritage, natural systems including stormwater, and traffic and parking have generally been identified as negligible, low, or neutral. No tree removal arises from the works, given the elevated location of the proposal and its works.

Justification and Conclusion.

The proposed alterations and additions to the existing Level 4 plantroom's rooftop on the CASB at Westmead Hospital to accommodate the new 15-bed palliative and supportive care unit is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement (SIS) and/or a Biodiversity Development Assessment Report (BDAR) to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Part 5 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.

1. Introduction

NSW Health Infrastructure (HI) proposes the development of a new 15-bed palliative and supportive care unit as a new habitable floor level on top of the existing Level 4 plantroom's rooftop of the CASB (Block K) at Westmead Hospital. Westmead Hospital is located at the corner of Hawkesbury Road and Darcy Road in Westmead (the site). The project forms part of HI's delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities.

This Review of Environmental Factors (REF) has been prepared by _planning Pty Ltd on behalf of HI to determine the environmental impacts of the proposed additions and alterations to the rooftop (Level 4) of the CASB for the new palliative and supportive care unit at Westmead Hospital. For the purposes of these works, HI is the proponent and the determining authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of this REF is to describe the proposal, to document the likely impacts of the proposal on the environment, and to detail protective measures to be implemented to mitigate impacts.

The description of the proposed works and associated environmental impacts have been undertaken in the context of the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the *Environmental Planning and Assessment Regulation 2021*, and the *Guidelines for Division 5.1 Assessments* (DPE June 2022).

The assessment contained within the REF has been prepared having regard to:

- Whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Part 5 of the EP&A Act; and
- The potential for the proposal to significantly impact Matters of National Environmental Significance (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

The REF helps to fulfil the requirements of Section 5.5 of the EP&A Act, which requires that HI examine, and take into account to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity.

1.1 Proposal need and Alternatives

Need for the Proposal

The project forms part of the NSW Health End of Life Palliative Care Framework 2019-2024; Clinical Principles for End of Life and Palliative Care (NSWH, GL2021_016); and the Palliative Care Blueprint (Agency for Clinical Innovation). In the 2022-23 NSW State Budget, the Government announced \$93 million for a WCEoL program, as part of a larger \$743 million commitment to ensuring NSW has the best palliative care services and support in Australia, if not the world. As part of the program, new units have been announced for Westmead Hospital, Nepean Hospital, Wyong Hospital, Orange Health Service and Tamworth Hospital.

There is increasing demand for end of life and palliative care beds. As the NSW population ages and the prevalence of cancer and other chronic diseases increases, the demand and choice for quality end of life and palliative care services will grow and increase pressure on the NSW hospital system.

In the five-year period between 2015-16 and 2020-21, palliative-related hospitalisations have increased by 23%, and the rate of palliative care hospitalisations has grown by 11% per 10,000 population. Other end of life hospitalisations have grown by 20% per 10,000 population. Between 2021-41, the number of people in NSW over 85 years of age is projected to increase by 136%. Annual deaths in NSW are projected to increase by 30%¹ over the same period and almost double by 2061.

Several ongoing service challenges for end of life and palliative care services are also impacting the ability of the NSW hospital system to cater for service demand, including:

- Inequitable access to dedicated inpatient beds for end of life and palliative care services, and the use of spaces that are not designed to support best practice models of care.
- Complicated referral pathways and constrained access to specialist multidisciplinary intervention for complex patients, resulting in inefficiency and un-coordinated care.
- Ongoing pressure to maintain patient outcomes and the patient experience for their end of life phase, and to provide choice for patients and their families and carers to accommodate individual needs.
- An enhanced presence for end of life and palliative care services within NSW hospitals will support:
 - well coordinated, multidisciplinary, integrated, and holistic service, particularly in other health facilities (inpatient and community health centres) within each District to ensure patient-centric care.
 - rapid provision of diagnostic or therapeutic interventions, and referral to other services (psycho-social care, community-based services, inter-agency involvement etc).
 - improved medication management (polypharmacy) leading to better outcomes, fewer medication errors, reduction in medicines waste.
 - facilities to support staff education and research opportunities.
- The ability to support end of life and palliative care staff and patient families by providing critical training to care for their loved one at home.
- Catering for specific cultural and spiritual sensitivities of patients, carers and their families.

Further, there are inequities in access to dedicated beds. Many patients in the eastern sector of the WSLHD must access inpatient end of life and palliative care services by presenting in crisis to the emergency department despite being known to the Palliative Care services. WSLHD caters for approximately 70% of its residents demand for inpatient care (SRG 86 Palliative Care), with the majority activity outflows serviced by St. Josephs, Auburn (17%), or Nepean, Ryde, Concord and other hospitals (13%).

Generally, the project object is to provide more end of life and palliative care beds for people requiring short-term, high-care beds and improved access to end of life and palliative care in Western Sydney. The program also seeks to increase hospital capacity and implementation of best-practice models for supportive and palliative care, improve access to pain management services for patients with life-limiting illness; improve services for people with late stage chronic and degenerative conditions, and including cancer; provide greater support for consumer choice in end of life and palliative care and provide greater support for carers and families of patients in the end of life phase.

To address the above, HI proposes to provide a new 15-bed palliative and supportive care unit at Westmead Hospital as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities consistent with the WCEoL program. The program provides patients with access to best quality care in a home-like environment to provide spaces which optimises quality of life. Palliative care is unique as it cannot cure, however it can reduce the severity of symptoms and suffering of patients with serious illness. In addition it can provide spaces which enable families to be together in a calm, tranquil environment. Access to natural light, fresh air, access to outdoors to provide the best quality of life for the time left.

Options Considered

A **master plan** was developed for the WCEoL program at Westmead. The master plan developed a set of principles which were established as part of a collaborative engagement process with the stakeholder group and responded directly to the shared aspiration to create a people-centred, healing environment. The master plan considered future visions for location and operation of the site. For the Westmead campus, four (4) locations were considered to locate the new palliative and supportive care unit, with all new unit locations on rooftop locations given the density of the Westmead campus. The rooftop above the plantroom of the CASB was selected as the preferred location for the World Class End of Life palliative and supportive care unit.

At commencement of the **concept design** BVN consolidated consultant team feedback on the preferred masterplan option to inform the design. The location of the unit was pulled south to resolve a number of infrastructure, access and services coordination issues.

Workshop 1 reviewed three (3) options which tested WSLHD responses to location of bedrooms and communal spaces within the unit. Staff areas for all 3 options were located above the transformers.

After some post-meeting adjustments responding to user feedback – Option 2 was selected as the preferred option to take further into Schematic Design.

During **schematic design** a series of workshops took place to provide deeper understanding of the following:

- Existing structure and services
- Changes required to building envelope
- Bedroom configurations
- View and access to outdoor space
- Detailed function of each space
- Clear understanding of staff and patient flow
- Public interaction with the space
- Materiality and interior design
- Furniture and joinery arrangement
- Maintenance and security of the unit

During this process BVN continued to develop the design with the principles agreed during previous phases of the design:

- Rooms should have large windows for patient outlook and maximise daylight within the room. Rooms, where possible, should have direct access to outdoor space to enable the patient to be taken by bed or by chair to the balcony area.
- Facade design studies to suit the new layout and provide openings for every bedroom and communal space has been undertaken.
- Rooflights provided where possible at key communal, staff and entry spaces.
- Landscape areas, bedroom external spaces, communal courtyard and staff courtyard spaces to be maximised where possible.

The schematic design developed the clinical planning, facade, landscape and interior design over three workshops. Following additional LHD comments in Workshop 3, the layout was updated for Option 2.

Generally, the location was selected given it:

- Provides the functional design briefed area.
- Supports the endorsed model of care with connectivity into the CASB.
- Provides safe and high-quality care.
- Provides culturally sensitive care.
- Provides access to expansive courtyards dedicated to palliative care.

The palliative unit footprint is designed to connect into the CASB cores on both the east and west sides of the building. The volume is located south to maximise rooftop gardens for patients, families, visitors and staff to the north.

2. Site Analysis and Description

2.1 The Site and Locality

Westmead Hospital is located at the corner of Hawkesbury Road and Darcy Road in Westmead in Western Sydney. The site (the whole of Westmead Hospital) is legally described as Lot 1 DP 1194390 and is some 28.5 ha in area – see **Figure 1**. The site is located within the Parramatta LGA and the WSLHD.



Figure 1 – Westmead Hospital – Lot 1 DP 1194390 (SixMaps)

The CASB (Block K) forms part of the overall development of Westmead Hospital and sits to the north-east of the original hospital buildings and between it and The Children’s Hospital at Westmead further to the north-east along Hawkesbury Road. The building is set back behind the Westmead Institute for Medical Research, and the Children’s Medical Research Institute at the Hawkesbury Road frontage – see **Figure 2** over.

The locality is generally dominated by the hospital and its adjacent health services facilities, including The Children’s Hospital at Westmead and Westmead Private Hospital. Other educational and medium to high density residential uses flank the hospitals generally to the south-east and west.

The NSW Government Gazette of 12 July 2019 identifies a significant number of NSW hospital sites acquired by the Health Administration Corporation (HAC) for the purposes of the Health Administration Act 1982 as at that date. This includes the former lot and DP listed as follows as forming ‘Westmead Hospital’. This acquisition has brought the hospital into HAC ownership.

Westmead Hospital Darcy Road / Hawkesbury Road, Westmead 2145 - 1 DP 1090838
HEALTH COMMISSION OF NEW SOUTH WALES
1/DP1090838

2.1.1 Existing Development

Westmead Hospital is part of the WSLHD and is the principal referral hospital for Western Sydney, serving a population of over one million people. Westmead Hospital is renowned for the comprehensive, highly-specialised, and complex services provided to its community, statewide and nationally.

Westmead Hospital's service offering is extensive and includes emergency, ambulatory, community, and in-patient care, covering disciplines such as major trauma, diagnostic services, complex surgical and procedural work, cardiac and neurological interventions, oncology and haematology, intensive care, and a range of chronic and complex care streams.

Opened in 1978, the Westmead Hospital campus has undergone a substantial transformation over time, including the past 20 years, which has resulted in expansion of facilities and services and the establishment of the Westmead Health and Education Super Precinct.

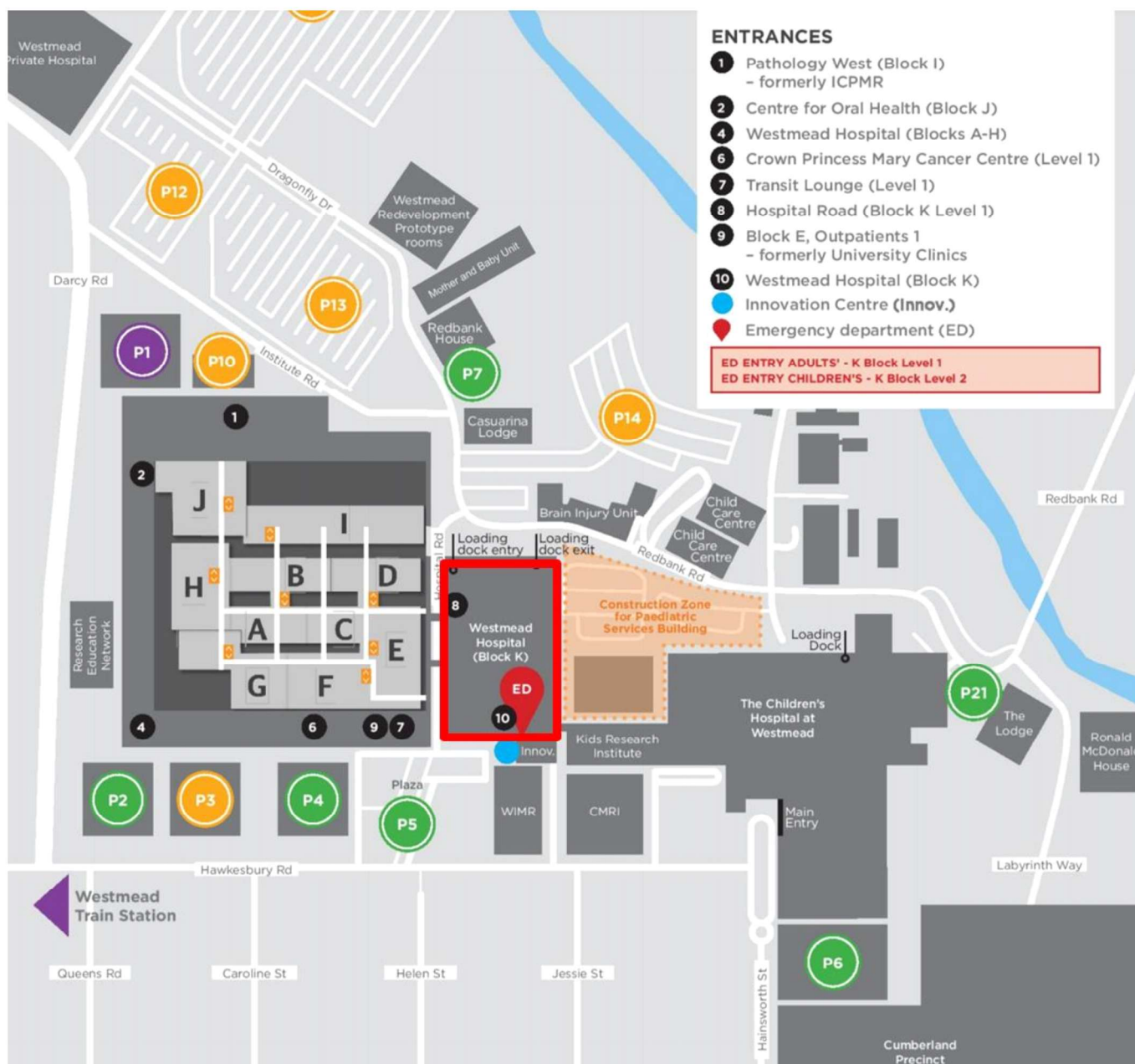


Figure 2 – Westmead Hospital Map with Block K / CASB bounded in red (WSLHD)

The existing development the subject of the works is the CASB as shown in **Figure 3**. The building forms part of the overall Westmead Hospital campus sitting to the north-east of the original 1970s hospital buildings. The general location of the proposed new 15-bed palliative and supportive care unit is shown in the pink colour in that figure.

The CASB is described as follows under the recent SSD DA consent SSD-7642 for its construction and use:

Westmead Hospital - Acute Services Building

Central Acute Services Building at Westmead Hospital. including construction of:

- A part 6 and part 13 storey building;
- A helipad on the uppermost roof of the building;
- A forecourt area with two levels of underground car parking, drop-off/pick-up areas and landscaping;
- Overhead pedestrian links to other hospital buildings; and
- A loading dock accessible from Redbank Road.

The CASB was opened in 2021 and increases integration between Westmead Hospital and The Children's Hospital at Westmead. The CASB includes new operating theatres, surgical suites and state-of-the-art pharmacy and imaging.



Figure 3 – The existing CASB viewed from the north facing Hawkesbury Road (derived from BVN)

Additional site photos are provided over.

2.1.2 Other Site Elements

Topography

The site's topography is generally comprised of a modified environment periodically altered over time. The site topography in the location of the CASB is approximately RL 20m AHD based on the NSW topographic map. The site drops to RL 10m AHD to the north towards Toongabbie Creek and to the south-east towards residential development across Hawkesbury Road and further towards Parramatta Park. The hospital and Hawkesbury Road could be broadly described as being on a moderate ridgeline.

Vegetation

As seen from aerial photography, the hospital campus is generally a cluster of new and old buildings on disturbed land. Trees and vegetation occur in pockets of varying densities. Vegetation is generally planted and relates primarily to the development of the newer buildings. Given the elevated position of the proposal, the works will not impact any vegetation.

Figure 6 over shows the NSW Government mapping of Biodiversity Values at and around the site. The hospital itself is devoid of any biodiversity mapping and the areas which are mapped generally follow distant watercourses, such as Toongabbie Creek and the Parramatta River.

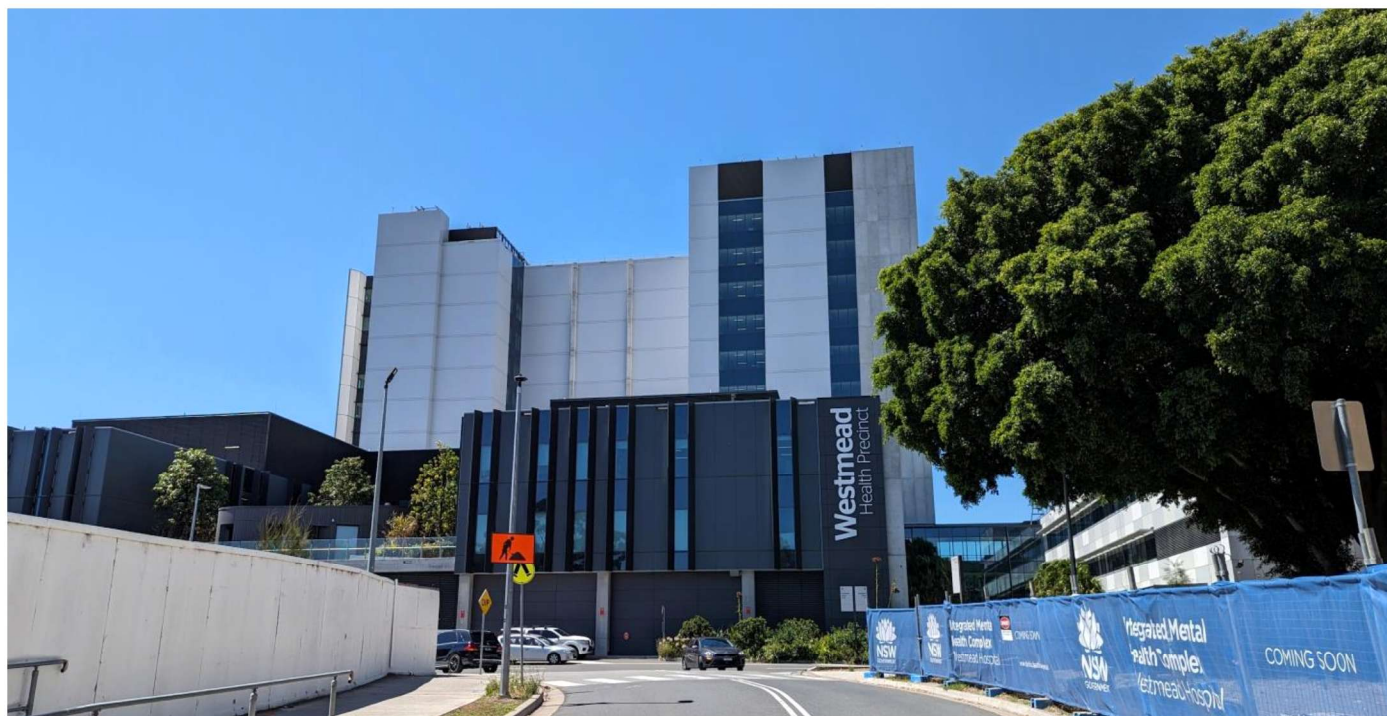


Figure 4 – The CASB as seen from Dragonfly Drive to the north-west within the hospital campus



Figure 5 – The CASB as seen from at-grade car parking areas to the north within the hospital campus

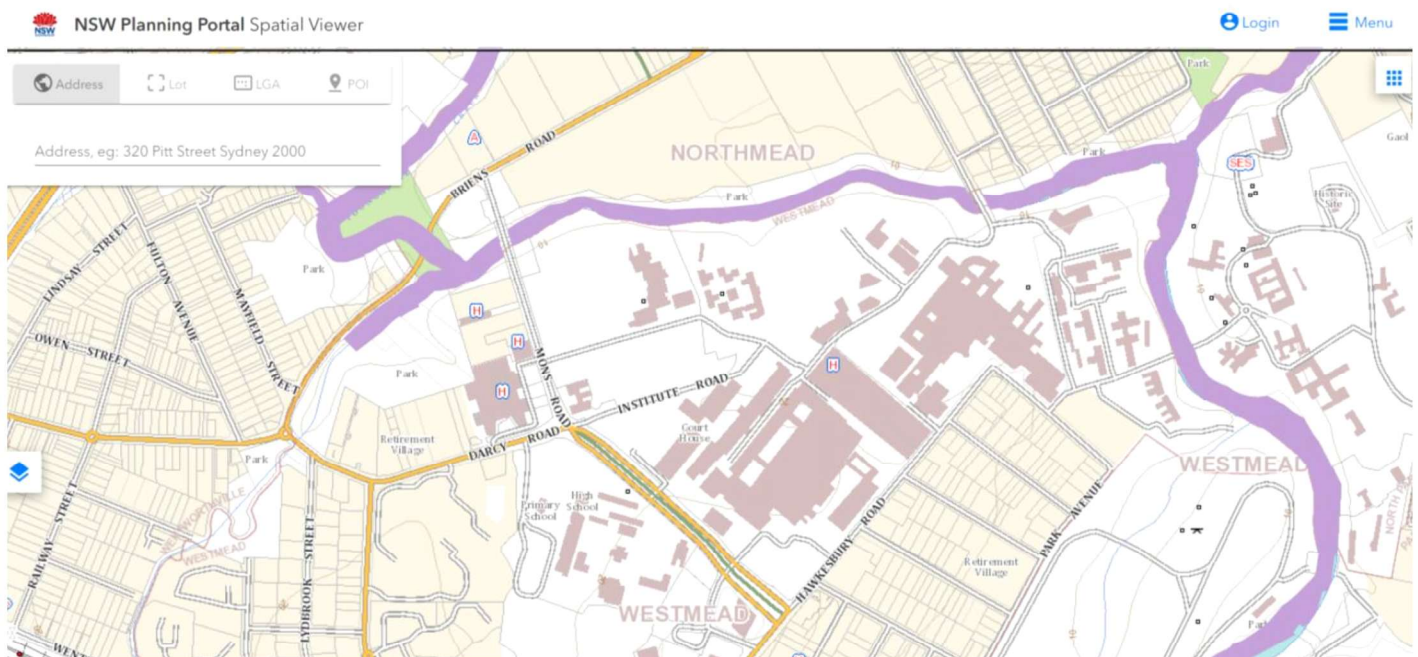


Figure 6 – Biodiversity Values mapping near the hospital campus (NSW Planning Portal Spatial Viewer)

Access

Westmead Hospital is a highly accessible location directly to the west of the Parramatta CBD. It is serviced by road, rail, (the soon to commence) light rail, and active transport connections, primarily focussed upon (or near) its Hawkesbury Road and Darcy Road frontages, as well as Mons Road and Redbank Road.

Vehicular, active, and pedestrian access into the hospital is gained from a number of locations along those frontages as well as other secondary linkages to the campus. Access to the CASB itself is also secured from various locations within the hospital campus with the building generally addressing Hawkesbury Road.

Traffic / transport

The NSW Government's vision for Westmead is to be Australia's premier health and innovation district by 2036, with a job creation target of 50,000 or more within Westmead by 2036. The Westmead Place-based Transport Strategy is a supporting plan of Future Transport and sits alongside the Westmead 2036 Place Strategy prepared by the then NSW Department of Planning and Environment.

The strategy acknowledges existing road network constraints surrounding the Westmead Health Precinct, stating "Westmead faces several challenges, including a limited connectivity across barriers including major roads, rail lines and rivers. The road network is constrained, particularly during peak hours and school pickup and drop-off times. The public transport network could be improved, particularly outside of the peak period and at night. Without a change in course, key road sections, including Hawkesbury Road and Darcy Road are forecasted to be close to, or over, capacity for private vehicles by 2041."

The Westmead Place-based Transport Strategy provides the overarching strategic transport network and vision that will guide future transport planning in Westmead. The strategy presents 43 transport initiatives for further investigation, grouped into five strategic directions as follows:

- Support Westmead's transformation into a truly integrated innovation district.
- Create vibrant and safe places, leveraging the major movement corridors, parklands and creeks.
- Develop sustainable travel networks that are permeable and attractive.
- Deliver better public and active transport options for customers of all ages and ability.
- Enhance the transport network to optimise and balance movement.

Road network

The surrounding local road network connects with the broader arterial network, including connections to the Cumberland Highway (Hart Drive), Great Western Highway, M4 Western Motorway (M4), Old Windsor Road and Pennant Hills Road.

The Great Western Highway and the M4 both provide east-west access to greater Sydney including Sydney CBD, Parramatta, Blacktown and key regional centres. The Cumberland Highway provides a north-south arterial road link to south-west Sydney areas including Liverpool and extending to the M5 South-West Motorway to allow access to Campbelltown, Canberra and southern regional centres. The M2 Hills Motorway and Westlink M7 also combine more broadly to provide a convenient north-south link.

Key staff and visitor vehicular access routes are shown in **Figure 7** below.

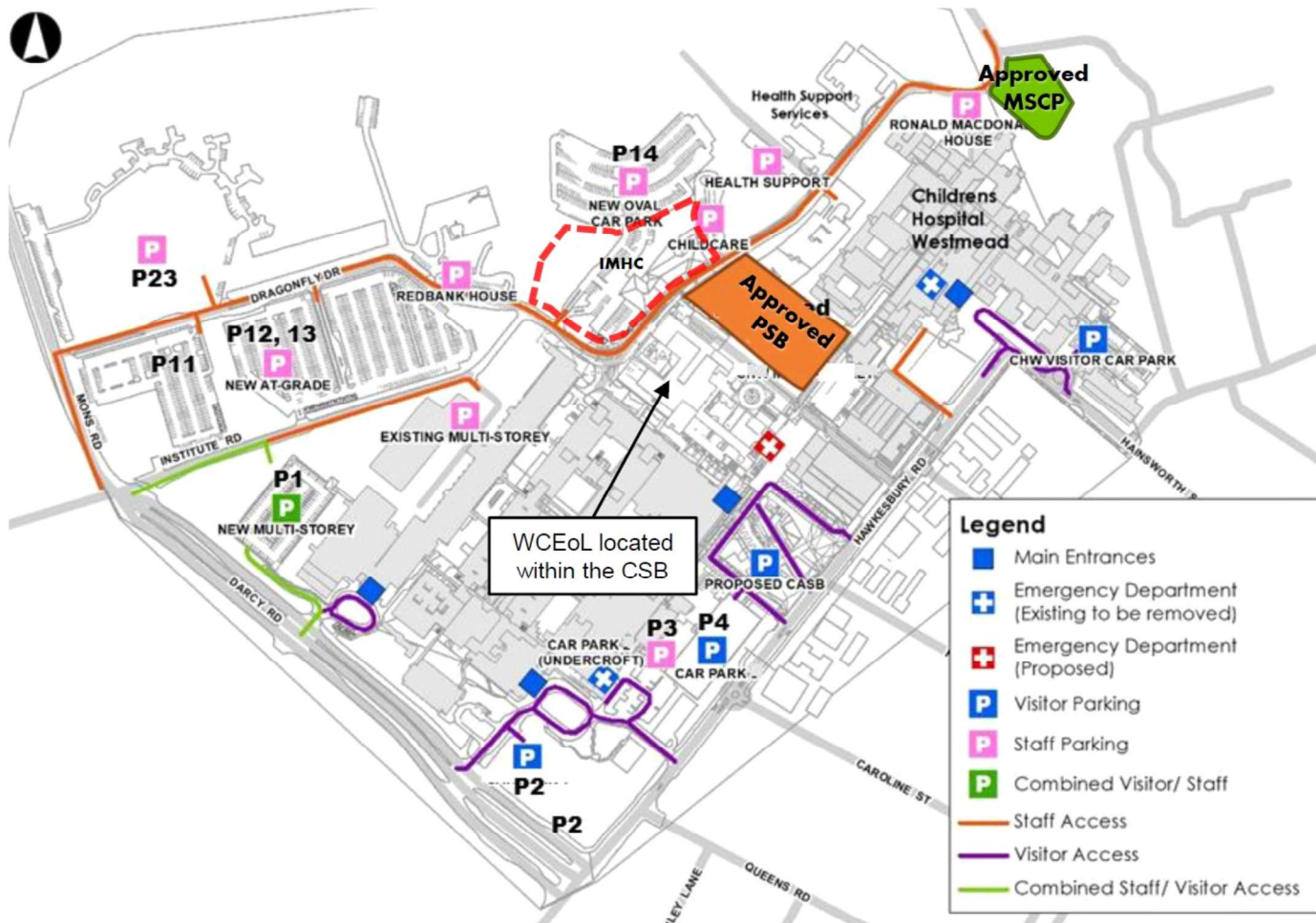


Figure 7 – Staff and visitor key access routes (Stantec)

Public transport

Given the strategic context of Westmead in the growth of Parramatta as Sydney's central CBD, there is significant growth and development anticipated for the area, including provision of additional public transport services.

The site is therefore well connected and near several existing and future public transport services, including existing high frequency bus corridors and heavy rail, and future Parramatta Light Rail and Sydney Metro West services – see **Figure 8**.

The proposed WCEoL site is located within 900 metres (10 minute walk) of Westmead Railway Station. The station is serviced by the Western Line (T1) providing frequent services to the Sydney CBD and the Cumberland Line (T5) which provides a north-south link between Campbelltown and Schofields.

Parramatta Railway Station is located one stop to the east of Westmead, providing a number of additional NSW TrainLink services extending to the Blue Mountains, and less regular services to Central West NSW including Orange, Bathurst and Dubbo.

Westmead Health Precinct is also well-served by the North-West T-Way which opened in 2007 and provides regular bus services with significantly increased reliability and good travel times, improving the level of service offered to passengers.

All bus services that pass the Westmead Health Precinct originate or terminate at Parramatta Railway Station with the exception of the 818 Merrylands to Westmead service. The majority of bus services operate as part of the T-Way, which provides direct services to/ from the north-west Sydney growth area that includes Rouse Hill, Glenwood and Bella Vista. There are also limited services which provide local links to Blacktown and Constitution Hill.

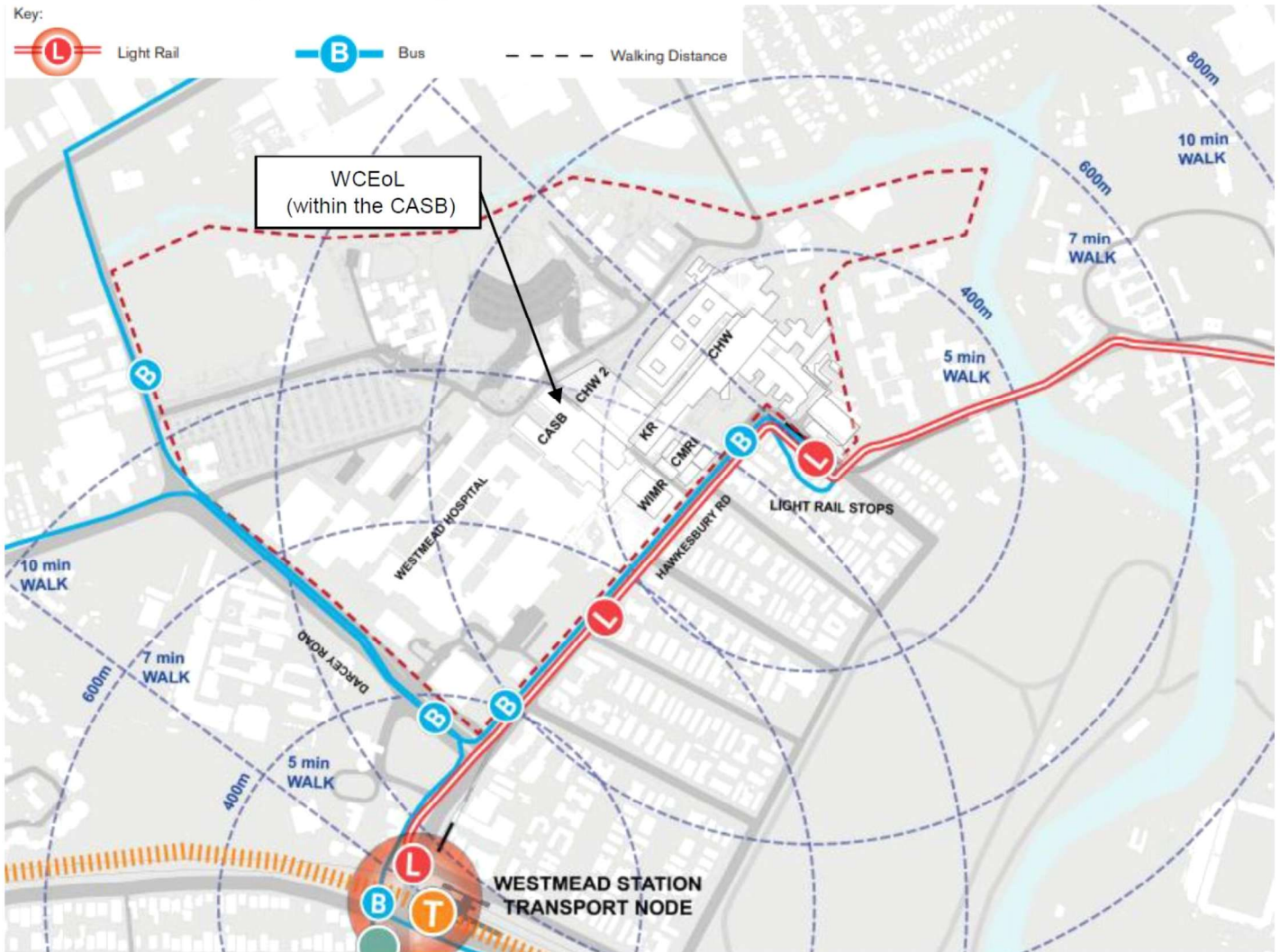


Figure 8 – Public transport accessibility overview (Stantec)

The Parramatta Light Rail Stage 1 route will connect Westmead with Carlingford via the Parramatta CBD. The route will provide a high frequency transport service to support existing residential catchments as well as several priority urban renewal precincts in the greater Parramatta to Olympic Peninsula Priority Urban Renewal Area, including Parramatta North, Camellia, Rydalmere and the Carlingford Corridor (including Telopea and Dundas). The route includes two stops along the Hawkesbury Road frontage of the Westmead Health Precinct.

Car parking

In terms of car parking, significant levels of on and off street parking exist. Overall, approximately 1,770 publicly available spaces in the surrounding area are available on-street, including approximately 960 unrestricted spaces.

The campus is made up of a number of at-grade and multi-deck car parks, variously devoted to staff and/or visitor use. Car Parks 14 and 23 are both at-grade staff parking facilities, with access derived from Dragonfly Drive. A total of 479 parking spaces are provided in Car Park 23 and 422 spaces in Car Park 14.

In terms of visitor parking, the car park of particular interest to the WCEoL project is Car Park 4, located in proximity to the CASB. Stantec visited site in November 2023 and undertook car parking supply count. In total, it was observed that

there were 421 car parking spaces for visitors. Further visitor parking is available in Car Park 5, under the new plaza area. See **Figure 9** for cross-reference to the various car park locations.

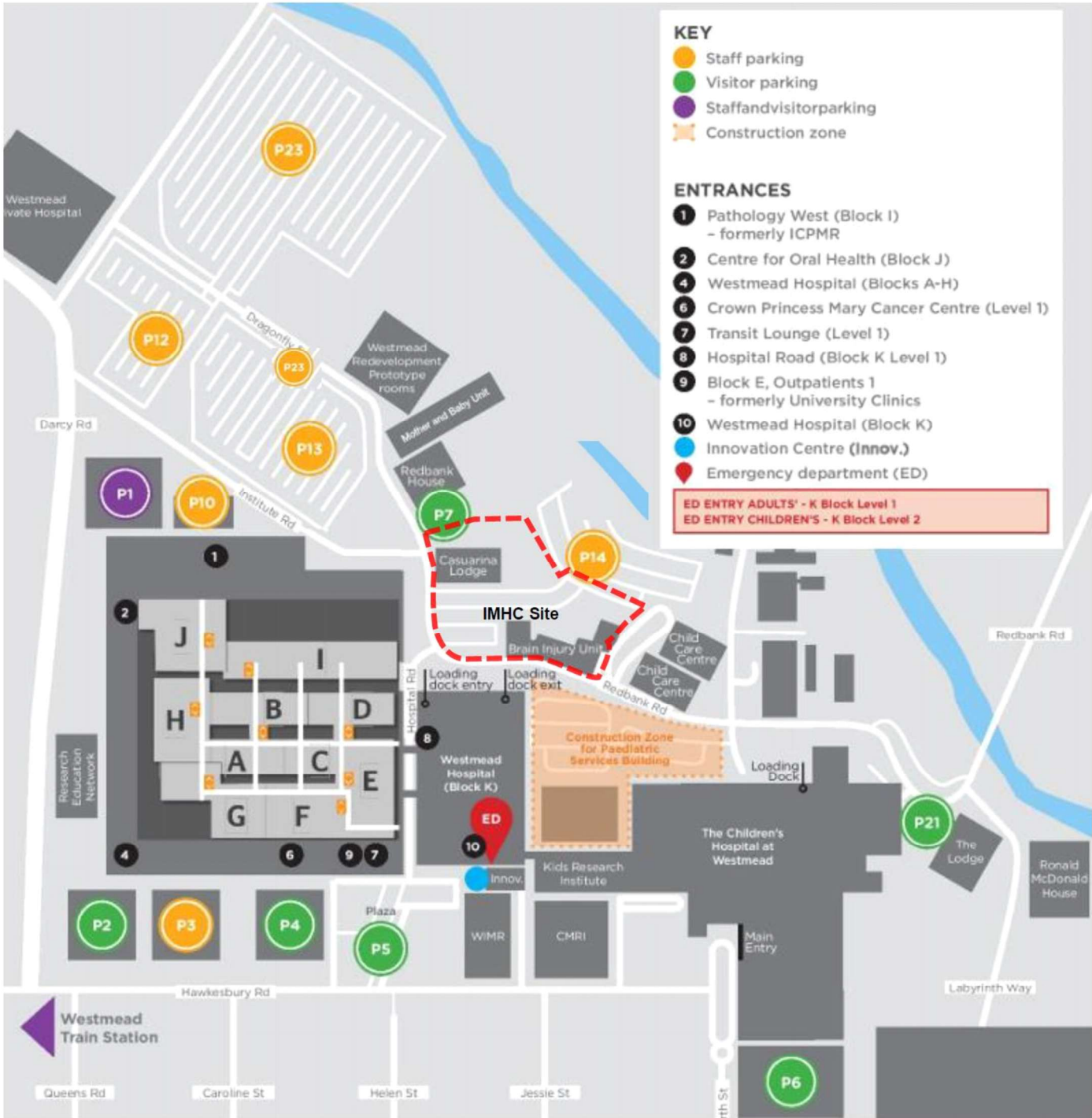


Figure 9 – Westmead Health Precinct car parking facilities (Stantec)

Bushfire

The hospital campus is not affected by mapped bush fire prone land – see **Figure 10** over.

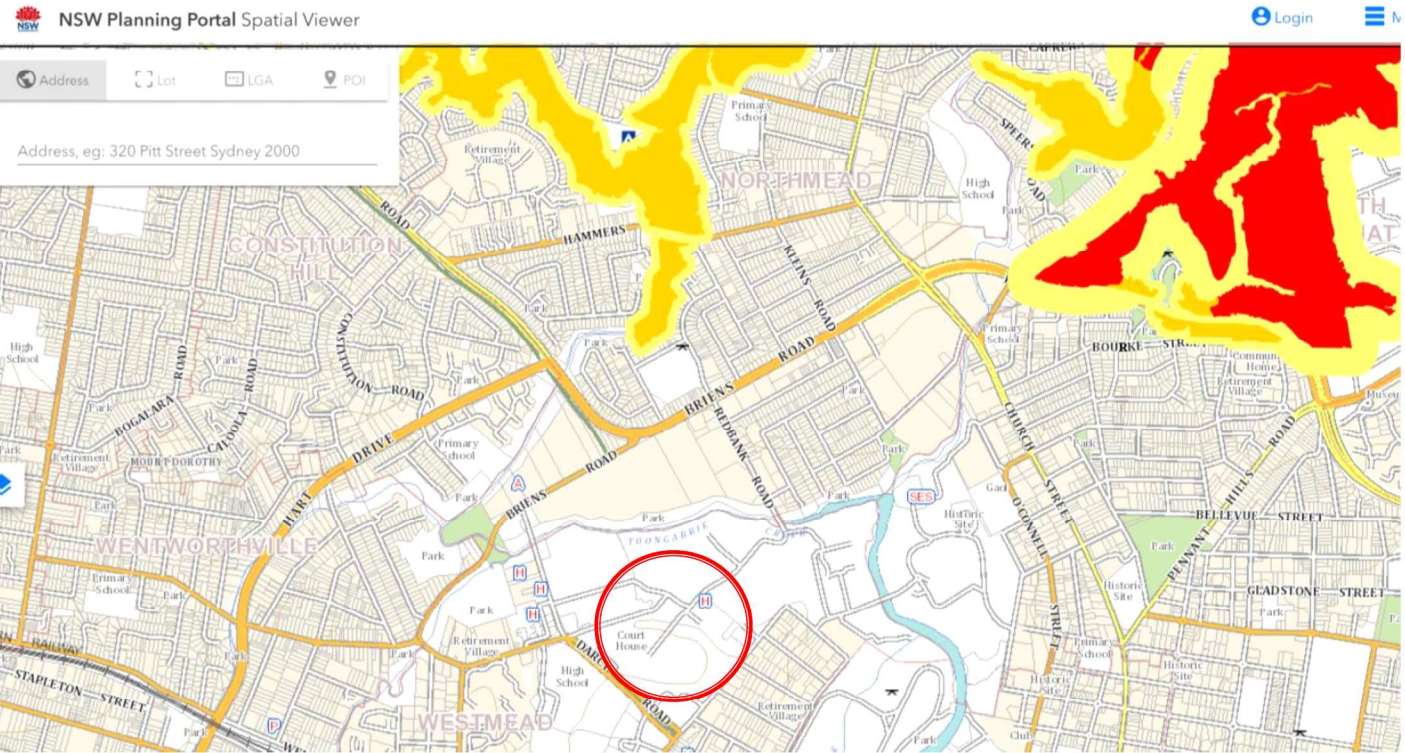


Figure 10 – Bushfire Prone Land Mapping with the hospital circled (NSW Government)

Flooding

To address flooding, reference has been made to Council’s “Know your flood risk” webpage which does identify large areas of the hospital as being subject to a “low risk” – see Figure 11. The CASB is not however impacted, nor would a new Level 5 upon the building’s podium be impacted.

<https://www.cityofparramatta.nsw.gov.au/environment/floodsmart-parramatta/know-your-flood-risk>

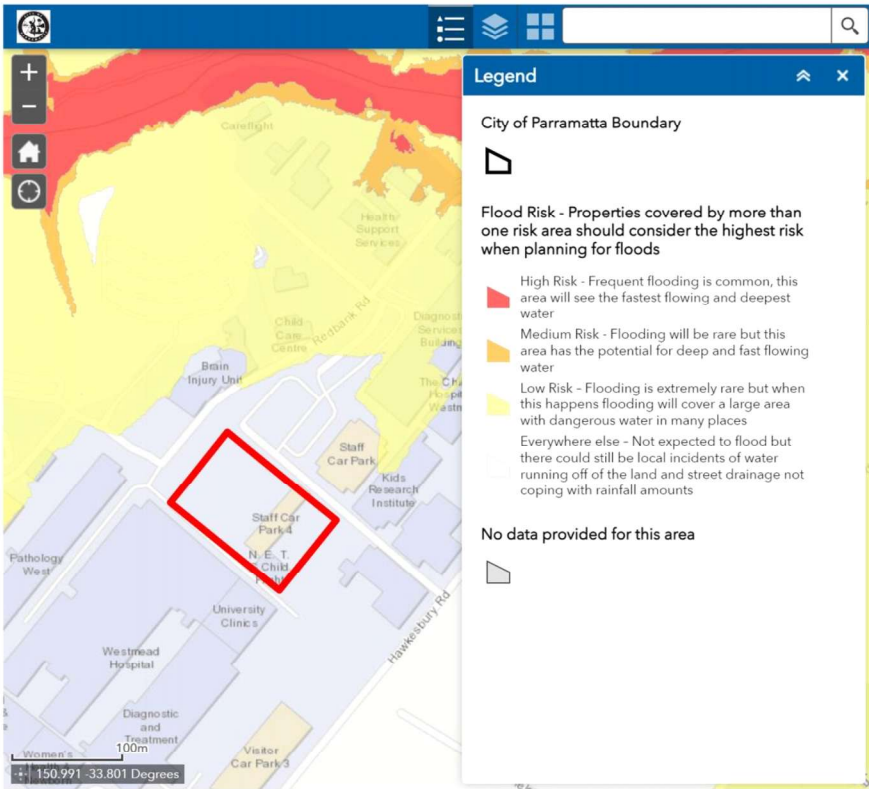


Figure 11 – Parramatta City Council “Know your flood risk” result for Westmead Hospital (Parramatta City Council)

2.1.3 Site Considerations and Constraints

Section 10.7 Planning Certificate No 2023/7232 dated 9 October 2023 identifies that the site is located within the SP2 – Infrastructure (Health Services Facility) zone under *Parramatta Local Environmental Plan 2023*, and is provided at **Appendix A**.

Table 1: Section 10.7 Planning Certificate

Affection	Yes	No
Critical habitat		✓ Not indicated
Threatened Species and Biodiversity Values mapping	✓ Peripherally and in part on Toongabbie Creek remote from the CASB	
Conservation area		✓
Item of environmental heritage	✓ Part only remote from the CASB	
Affected by coastal hazards		✓
Proclaimed to be in a mine subsidence district		✓
Affected by a road widening or road realignment		✓
Affected by a planning agreement		✓ Not indicated
Affected by a policy that restricts development of land due to the likelihood of landslip		✓ Not indicated
Affected by bushfire, tidal inundation, subsidence, acid sulfate or any other risk	✓ Acid Sulfate Soils only (Class 5)	✓ Otherwise
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any biobanking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls	✓ Partly	
Draft Flood Study Area	✓	
Bush Fire Prone Land		✓
Western Sydney Aerotropolis (ANEF/ANEC, OLS, Lighting Intensity and Wind Shear, public safety, and 3km Wildlife Buffer)		✓

2.2 Surrounding Development

Areas to the east and south of the hospital and Hawkesbury Road are dominated by medium to higher density residential flat developments. The southern corner of Hawkesbury and Darcy Roads includes a mixed use development incorporating Western Sydney University, with a cluster of other educational establishments located west along Darcy Road.

The locality could broadly be described as a mixed use neighbourhood of higher density development, which is in transformation. The hospitals however dominate their context and serve as the fulcrum to the majority of activities within this locality.

Parramatta Park, further to the south-east in one of the 11 Australian Convict Sites which represents a key element of the story of the forced migration of convicts to NSW and other territories. The National (and UNESCO) listing of Parramatta Park is mapped to the park's boundary with Park Avenue, Westmead. Hawkesbury Road is one further block to the west / north-west with significant areas of development in between buffering the hospital from this location.

2.3 Concurrent Projects

Based on the HI webpage, there are two other listed projects at Westmead Hospital. These are the Westmead Health Campus Car Park (completed) and the Westmead Redevelopment - Stage 1A and 1B and The Children's Hospital - Stage 1 (in delivery status and under construction). A two-stage refurbishment program is also proposed to the existing Westmead Hospital.

A review of various development application portals reveals the following projects of significant size or value in, or in proximity of, Westmead Hospital:

Project name	Description	Location	Status
CMRI Gene Technologies Building	Redevelopment of the Children's Medical Research Institute, including: demolition works, tree removal, construction of 8 storey and 10 storey buildings including basement, pedestrian links, car parking, vehicle access, earthworks and landscaping.	214 Hawkesbury Road, Westmead	SSD-45576956 SEARs Issued in March 2024 and EIS under preparation.
Westmead iQ3 - BTR	Construction and operation of a 15 storey build-to-rent shop top housing development, comprising amongst other things 244 build-to-rent residential dwellings.	1 Farmhouse Road, Westmead	SSD-65614712 Under Assessment
The Children's Hospital at Westmead - Paediatric Services Building	Construction and operation of a 14 level Paediatric Services Building	The Children's Hospital at Westmead, corner of Hawkesbury Road and Hainsworth Street	SSD-10349252 Under construction
Westmead Integrated Mental Health Complex	Construction and operation of a new 10 storey Integrated Mental Health Complex at Westmead Hospital, including demolition, remediation, earthworks, tree removal, landscaping, services, access arrangements (including link bridge to ASB) and signage.	Westmead Hospital	SSD-44034342 Under construction

As noted the Parramatta Light Rail project is also nearing completion with operation anticipated later in 2024.

The most relevant concurrent projects with levels of construction overlap in direct proximity of the Westmead WCEoL project are likely to be:

- The Children's Hospital at Westmead - Paediatric Services Building.
- Westmead Integrated Mental Health Complex.

3. Proposed Activity

3.1 Proposal Overview

The Westmead Hospital WCEoL Project proposes alterations and additions to the existing Level 4 plantroom's rooftop on the CASB at Westmead Hospital to accommodate the new 15-bed palliative and supportive care unit. The unit is proposed as an extension to, and new habitable floor level on top of, the existing Level 4 plantroom's rooftop. The addition will become Level 5 of the podium of the existing CASB (also known as Block K) at the hospital. The proposed location enables both direct linkages with the hospital's acute care facilities, and an outlook and amenity for patients.

The addition is approximately 1,600m² of useable area to the new Level 5 extension with the final total floor area to be determined through the detailed design process. The 15 beds are provided through 12 one-bed rooms with ensuites, one two-bed room, as well as a separate isolation bedroom to meet the functional brief of the project. These bedrooms are located around the perimeter of the building footprint to provide outlook and direct access to balcony spaces directly outside of the patient rooms with communal landscaped courtyards beyond. Large glazed sliding doors provide direct access (by patient bed) to a patient courtyard from every bedroom.

The proposal also involves a lounge and dining area, a multi-faith prayer room to support the inpatient spaces, and also provides for a range of other rooms and spaces for clinical support – see **Figure 12**.

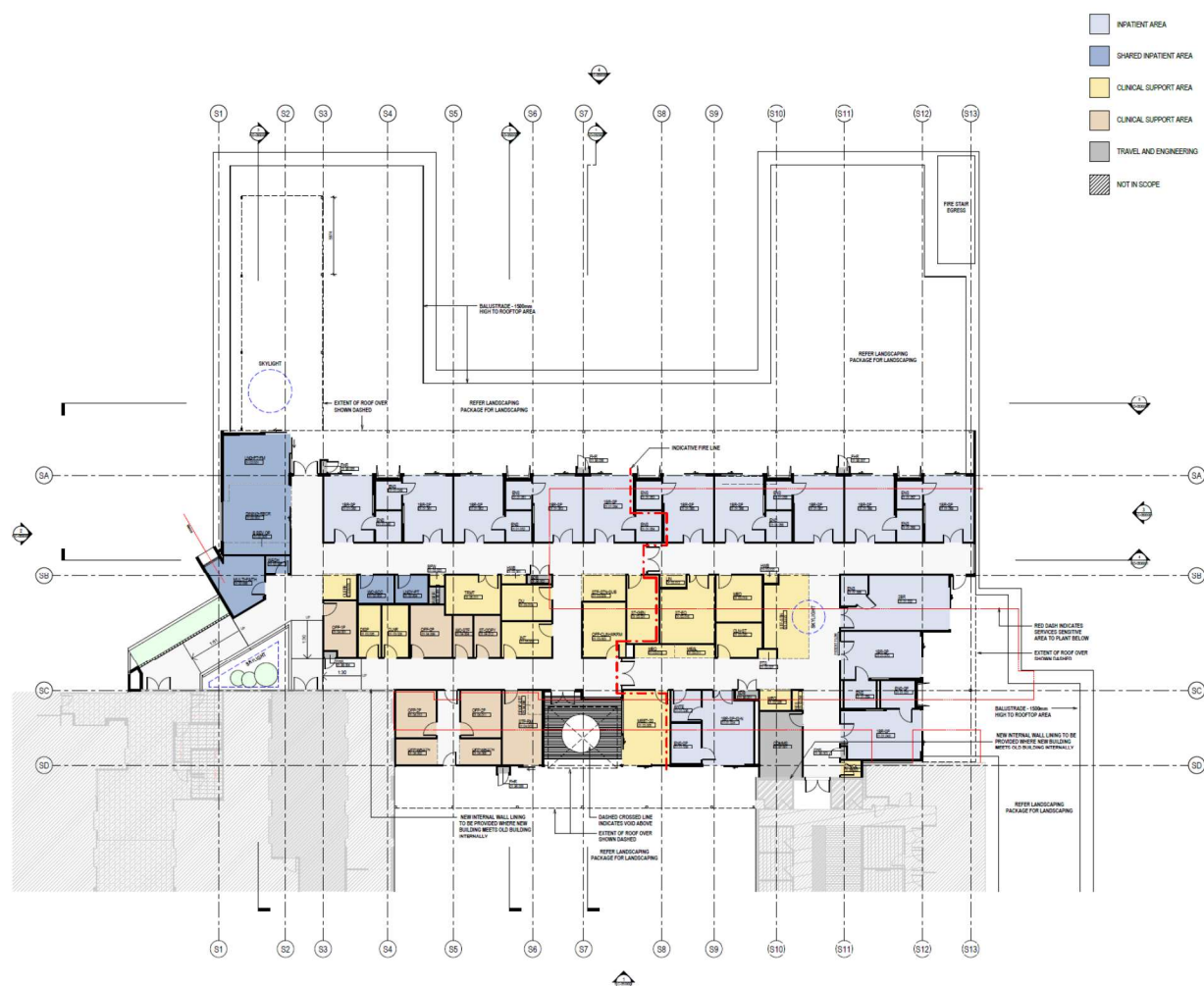


Figure 12 – Proposed general arrangement floor plan (BVN)

Figure 13 provides an axonometric view of the new facility articulating its extent and location upon the CASB's podium. **Figure 14** provides a contextual aerial photograph of the clustering of buildings in this part of the hospital campus and the subject specialist palliative and supportive care unit.

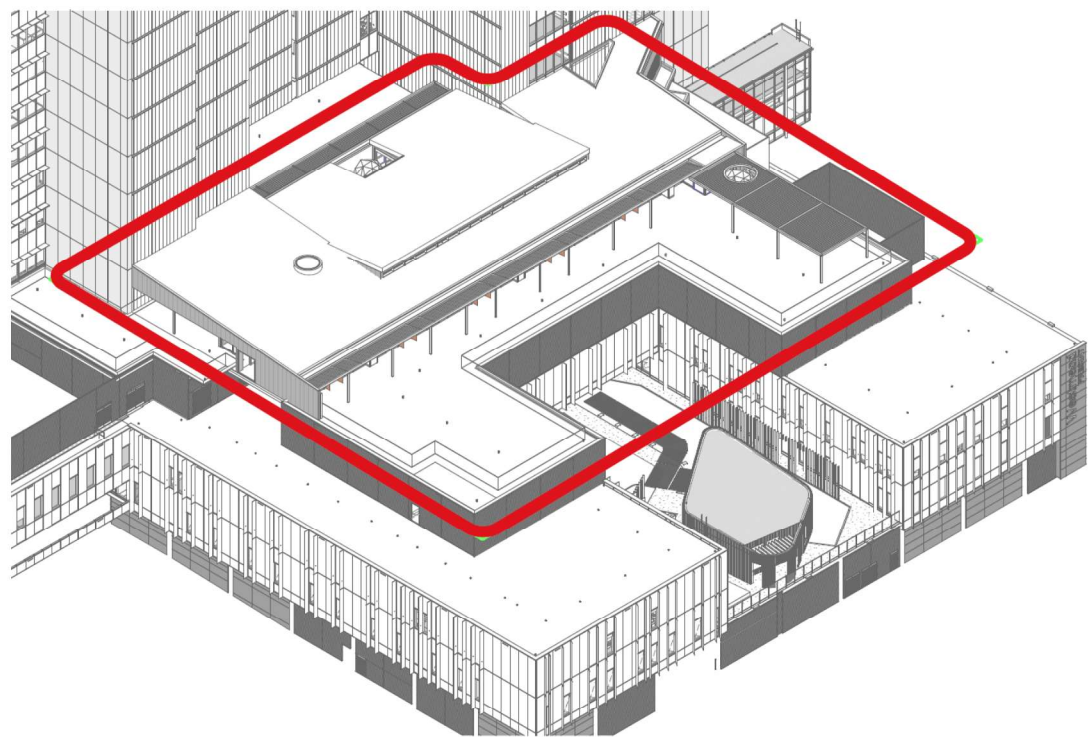


Figure 13 – Axonometric view of the proposal from the north-east (BVN)



Figure 14 – Aerial view of the hospital campus including the CASB and the proposed unit labelled SPCU from the south-west (BVN)

3.1.1 Design Approach

Placemaking and Design

An Architectural Design Statement has been prepared by BVN to articulate the project and design objectives, the key design principles adopted throughout the design process, and the basis for these principles.

In summary, BVN advises as follows with respect to the design outcomes achieved:

The location was selected given it

- *Provides the functional design briefed area*
- *Supports the endorsed model of care with connectivity into the CASB*
- *Provides safe and high-quality care*
- *Provides culturally sensitive care*
- *Provides access to expansive courtyards dedicated to palliative care*

The palliative unit footprint is designed to connect into the CASB cores on both the east and west sides of the building. The volume is located south to maximise rooftop gardens for patients, families, visitors and staff to the north.

As the Palliative Care Unit is connected to the existing Clinical Acute Services Building, the exterior palette chosen draws from the existing building. A dark grey colour has been chosen for the majority of the façade in keeping with the cladding expressed in the existing CASB podium, whilst feature alcoves in the facade provide some articulation to the building and are highlighted with an earthy orange tone to mimic the existing 'picture frame' materiality of the main building.

BVN has applied the principles of the Design Guide for Health: Spaces, Places & Precincts (GANSW, April 2023), as well as the other GANSW documents Better Placed, Greener Places and Connecting with Country Framework (2023). CPTED Principles have also been considered as far as this can be applied to an existing built envelope and the use proposed within the building.

The fundamental design objectives consistent with the above have been to provide for:

- Design for dignity.
- Design for wellbeing.
- Design of efficient and flexible delivery of care.
- Design for longevity and resilience.
- Design with Country.
- Design for the neighbourhood and surrounding environment.
- Design for connection.
- Design for sustainability.

The Architectural Design Statement prepared by BVN is included at **Appendix B**.

Additionally, a Landscape Design Statement by Context has been provided (see **Appendix C**) which sets out the landscape design rationale. This has also generally incorporated the above principles. As Context states:

The landscape approach to the palliative care unit upgrade at Westmead Hospital was developed through a series of founding principles, establishing a strong connection to landscape context.

This was achieved in several ways, firstly by the use of endemic plant species, which in turn responds to the geology, soils and climate.

The aspect of the building also guided the careful selection of appropriate plants and responds to the facilities need to provide both private and communal spaces.

The spatial arrangement facilitates a variety of landscape settings and is sensitive to the varied cultural groups that will encounter the space on their journey through life.

Aspects of seasonality have also been threaded through the spaces and will provide unique settings throughout the year, breathing nostalgia and a sense of home to the facility.

The landscape is embedded with the principles of biophilia, allowing views and proximity to green to be maximised.

Private patient rooms frame the garden outside, while dappled light penetrates the internal spaces.

Variations in plants textures, smells and colour allow visitors to experience the landscape.

Comfort for users has been considered, with a variety of landscape rooms that serve the different needs of the users. These rooms include private contemplation spaces for family to gather.

Spaces have been carved out of mass planted areas to provide the opportunity for gathering and spiritual reflection.

A special area for staff is designated for quite breaks and privacy.

With respect to CPTED, the following principles have been considered during the design and ongoing into operation of the new unit:

- Surveillance
- Territorial reinforcement
- Activity and Space Management
- Access control

As the new palliative care space is within the controlled environment of the hospital on the new Level 5 of the CASB, appropriate levels of access control will be directly and automatically enforced.

Typical levels of surveillance within this part of the hospital will apply with CCTV also employed to further augment passive surveillance with electronic surveillance.

Territorial reinforcement of ownership, care, use and management of space and property will result for the same reasons through changed and enhanced usage of the building and its environs.

Similarly, activity will result over longer periods for the course of the year and space management will be refined to suit the new levels of activity.

As with any hospital function within a hospital campus, access is limited and demarcated to prevent free access and passage to any, or all, parts of a hospital campus. Secure and limited access is proposed to areas requiring this through electronic means (locks and the like) and through the design which will discourage free access where it should not be desired.

The landscape design has adopted best practiced CPTED principles with the planting design and species being curated to allow for vertical and horizontal sight lines to the programmed landscape zone and veranda spaces to allow the hospital staff to monitor patients in the outdoor spaces.

Connecting with Country/Engagement

The site sits within the area covered by the Deerubbin Local Aboriginal Land Council. Consistent with HI's *Implementing the Connecting with Country Framework – A Guideline for Health Infrastructure Project Teams and Partners* dedicated workshops were held with key Aboriginal Elders and community representatives with HI and BVN to hear about the key challenges faced when using palliative care.

The design has incorporated culturally appropriate spaces for patients and their families. The design provides spaces within the palliative and supportive care unit for large indigenous groups to gather. These outdoor spaces connect to surrounding green space, where a ground level is available or alternatively an outdoor balcony space on a rooftop

With respect to landscaping, a Design with Country process has been undertaken, with consultations with indigenous user groups. A spiritual space has been designed into the landscape programming that will be further developed in the detail design which will have consultations with indigenous and First Nation user groups.

DESIGN WITH COUNTRY



Figure 15 – Designing with Country (BVN)

The project's design has incorporated sustainability principles consistent with the requirements of DGN 58 and HI's Sustainability Strategy. An ESD Report has been prepared to support the development – see **Appendix D**.

- A minimum of 60 points (+5 point buffer) to be achieved by the design in accordance with HI's ESD Evaluation Tool; and
- A mandatory requirement of demonstrating a 10% improvement in energy performance on NCC Section J.

- The development is currently targeting 66 points in accordance with HI's ESD Evaluation Tool.
- The development will demonstrate a 10% improvement in energy performance on NCC Section J.
- Building Management – including reviews of commissioning and tuning, building information and other operational processes.
- Indoor Environment Quality – including high air quality, acoustic/lighting comfort and reduction of indoor pollutants.
- Energy & Carbon – including improved energy efficiency of the building operations through design and technology and consideration to Embodied Carbon.
- Water Efficiency – reduce potable water demand and utilising the use of rainwater.

- Materiality & Waste – Considering the whole of life of materials and their selection to minimise harm to the environment, including efficiency and construction while minimising resources sent to landfill from construction and demolition works.

Additionally, the EP&A Regulation lists four principles of ESD required to be considered in assessing a project:

- The Precautionary Principle
- Intergenerational equity
- Conservation of biological biodiversity and ecological integrity
- Improved valuation and pricing of environmental resources

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful consideration and evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This REF has not identified any serious threat or irreversible damage to the environment and therefore the precautionary principle is not relevant in this case.

Intergenerational equity is concerned with ensuring the health, diversity and productivity of the environment can be maintained or enhanced for the benefit of future generations. The proposal satisfies this by providing a means to providing enhanced and much needed health services for generations to come.

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration for any development. The proposal will have no detrimental effect upon this, given the general lack of biodiversity values present on the site and the largely internalised nature of the works themselves.

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources that may be affected by a proposal, including air, water, land and living things. Mitigation measures are included in this REF for avoiding waste and ensuring where possible reuse, recycling and managing waste occurs, as relevant to this relatively minor scope of works.

3.1.2 Proposed Activity

Built Form

The proposed built form of the development is modest in relation to the adjacent context of the density and cluster of buildings around the CASB. The CASB itself is some 14 storeys to the rooftop helipad. The existing podium height of the CASB is 4 storeys. The proposal will add a setback and recessed fifth storey to the north-east of the main bulk of the building. As seen in **Figure 16**, the proposed palliative and supportive care unit will be nestled within a taller, more dominant cluster of buildings, including the currently under construction The Children's Hospital at Westmead - Paediatric Services Building (labelled 'A' in Figure 16) and the Westmead Integrated Mental Health Complex (and labelled 'B' in the same figure).



Figure 16 – Adjacent built form to the proposal and CASB (BVN)

The works do not otherwise alter the building's existing maximum height or footprint. **Figure 17** provides a variety of elevations of the proposal.

Architectural Plans are included at **Appendix E**.

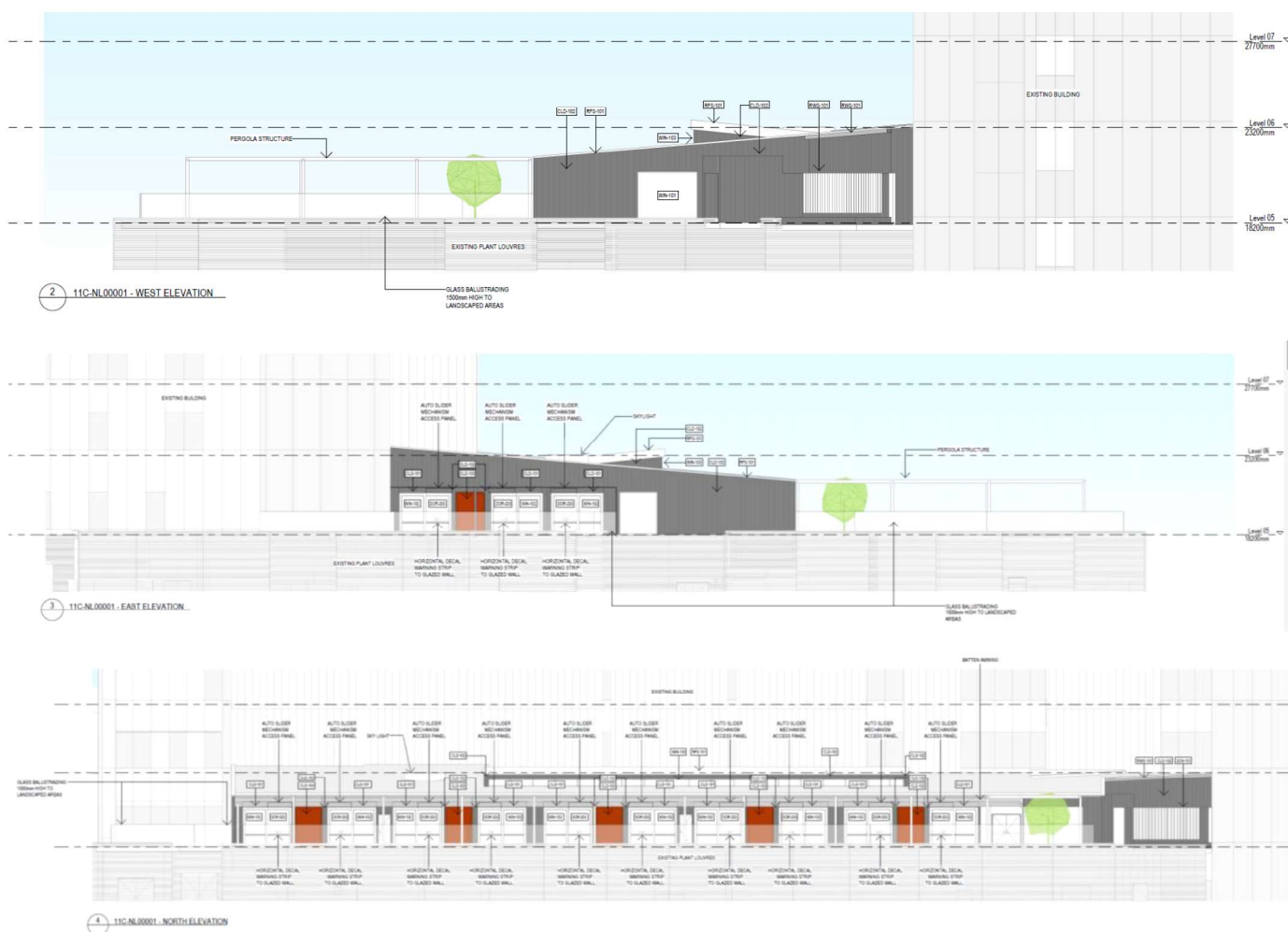


Figure 17 – Proposed elevations (BVN)

Demolition

The demolition works will be extremely minor given the proposed light-weight addition to the CASB's Level 4 rooftop. No demolition plan forms part of the drawing set.

Roadworks and Parking

No roadworks are triggered by the modest scope of the works. Similarly, the works have no physical impact upon any car parking due to the elevated position of the proposed palliative and supportive care unit.

Tree Removal and Landscaping

No tree removal is required as a result of the works.

Landscaping is proposed within the new courtyard spaces. It will generally be a highly simplified design to cater for the elevated space and its functional needs. To that end the key features of the landscaping are a series of different spaces with similar and consistent planting and landscaping outcomes.

Landscape Plans are included at **Appendix F**. See also **Figures 18-20** over which show a site plan, the materials palette and the proposed planting.

Site Plan

- 1 The Verandahs
- 2 Western Garden
- 3 Communal gathering
- 4 Eastern Garden
- 5 Staff Retreat/Breakout space/
Iso Room
- 6 Reflection Garden
- 7 Outdoor dining
- 8 Roof ballast



Figure 18 – Landscape Site Plan (Context)

Materials Palette

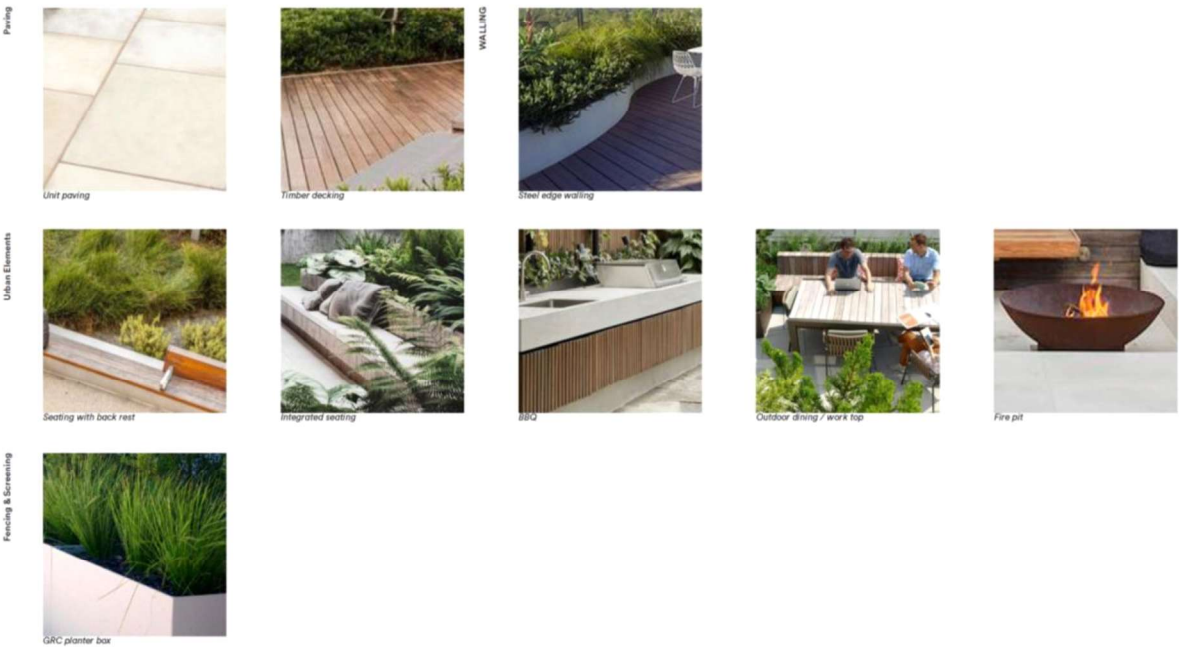


Figure 19 – Landscape Materials Palette (Context)

Planting Palette

Botanic Name

SHRUBS, HEDGES & SCREENING

Banksia ericifolia
Doryanthes excelsa
Xanthorrhoea media

GROUNDCOVERS

Allium amplexicaule
Bulbine bulbosa
Craspedia variabilis
Dianella caerulea
Dichondra repens
Epacris longiflora
Hibbertia obtusifolia
Lambertia formosa
Pimelea linifolia
Pycnosorus globosus
Tetratheca thymifolia
Viola hederacea
Wahlenbergia capillaris

VINES, CREEPERS

Cissus antarctica
Hardenbergia violacea
Pandorea pandorana subsp. *Pandorana*



Figure 20 – Landscape Planting Palette (Context)

Utilities

A series of new connections are proposed from within the CASB to the new unit. This includes electrical, hydraulic, fire services, and mechanical services. A range of drawings by a number of consultants are included at **Appendices G, H and I**.

3.2 Proposal Need, Options and Alternatives

3.2.1 Strategic Justification

The project forms part of the NSW Health End of Life Palliative Care Framework 2019-2024; Clinical Principles for End of Life and Palliative Care (NSWH, GL2021_016); and the Palliative Care Blueprint (Agency for Clinical Innovation). In the 2022-23 NSW State Budget, the Government announced \$93 million for a WCEoL program, as part of a larger \$743 million commitment to ensuring NSW has the best palliative care services and support in Australia, if not the world. As part of the program, new units have been announced for Westmead Hospital, Nepean Hospital, Wyong Hospital, Orange Health Service and Tamworth Hospital.

There is increasing demand for end of life and palliative care beds. As the NSW population ages and the prevalence of cancer and other chronic diseases increases, the demand and choice for quality end of life and palliative care services will grow and increase pressure on the NSW hospital system.

In the five-year period between 2015-16 and 2020-21, palliative-related hospitalisations have increased by 23%, and the rate of palliative care hospitalisations has grown by 11% per 10,000 population. Other end of life hospitalisations have grown by 20% per 10,000 population. Between 2021-41, the number of people in NSW over 85 years of age is projected to increase by 136%. Annual deaths in NSW are projected to increase by 30%¹ over the same period and almost double by 2061.

Several ongoing service challenges for end of life and palliative care services are also impacting the ability of the NSW hospital system to cater for service demand, including:

- Inequitable access to dedicated inpatient beds for end of life and palliative care services, and the use of spaces that are not designed to support best practice models of care.
- Complicated referral pathways and constrained access to specialist multidisciplinary intervention for complex patients, resulting in inefficiency and un-coordinated care.

- Ongoing pressure to maintain patient outcomes and the patient experience for their end of life phase, and to provide choice for patients and their families and carers to accommodate individual needs.
- An enhanced presence for end of life and palliative care services within NSW hospitals will support:
 - well coordinated, multidisciplinary, integrated, and holistic service, particularly in other health facilities (inpatient and community health centres) within each District to ensure patient-centric care.
 - rapid provision of diagnostic or therapeutic interventions, and referral to other services (psycho-social care, community-based services, inter-agency involvement etc).
 - improved medication management (polypharmacy) leading to better outcomes, fewer medication errors, reduction in medicines waste.
 - facilities to support staff education and research opportunities.
- The ability to support end of life and palliative care staff and patient families by providing critical training to care for their loved one at home.
- Catering for specific cultural and spiritual sensitivities of patients, carers and their families.

Further, there are inequities in access to dedicated beds. Many patients in the eastern sector of the WSLHD must access inpatient end of life and palliative care services by presenting in crisis to the emergency department despite being known to the Palliative Care services. WSLHD caters for approximately 70% of its residents demand for inpatient care (SRG 86 Palliative Care), with the majority activity outflows serviced by St. Josephs, Auburn (17%), or Nepean, Ryde, Concord and other hospitals (13%).

Generally, the project object is to provide more end of life and palliative care beds for people requiring short-term, high-care beds and improved access to end of life and palliative care in Western Sydney. The program also seeks to increase hospital capacity and implementation of best-practice models for supportive and palliative care, improve access to pain management services for patients with life-limiting illness; improve services for people with late stage chronic and degenerative conditions, and including cancer; provide greater support for consumer choice in end of life and palliative care and provide greater support for carers and families of patients in the end of life phase.

To address the above, HI proposes to provide a new 15-bed palliative care unit at Westmead Hospital as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities consistent with the WCEoL program. The program provides patients with access to best quality care in a home-like environment to provide spaces which optimises quality of life. Palliative care is unique as it cannot cure, however it can reduce the severity of symptoms and suffering of patients with serious illness. In addition it can provide spaces which enable families to be together in a calm, tranquil environment. Access to natural light, fresh air, access to outdoors to provide the best quality of life for the time left.

3.2.2 Alternatives and Options

A **master plan** was developed for the WCEoL program at Westmead. The master plan developed a set of principles which were established as part of a collaborative engagement process with the stakeholder group and responded directly to the shared aspiration to create a people-centred, healing environment. The master plan considered future visions for location and operation of the site. For the Westmead campus, four (4) locations were considered to locate the new palliative and supportive care unit, with all new unit locations on rooftop locations given the density of the Westmead campus. The rooftop above the plantroom of the CASB was selected as the preferred location for the World Class End of Life palliative and supportive care unit .

At commencement of the **concept design** BVN consolidated consultant team feedback on the preferred masterplan option to inform the design. The location of the unit was pulled south to resolve a number of infrastructure, access and services coordination issues.

Workshop 1 reviewed three (3) options which tested WSLHD responses to location of bedrooms and communal spaces within the unit. Staff areas for all 3 options were located above the transformers.

After some post-meeting adjustments responding to user feedback – Option 2 was selected as the preferred option to take further into Schematic Design.

During **schematic design** a series of workshops took place to provide deeper understanding of the following:

- Existing structure and services
- Changes required to building envelope
- Bedroom configurations
- View and access to outdoor space
- Detailed function of each space
- Clear understanding of staff and patient flow
- Public interaction with the space
- Materiality and interior design
- Furniture and joinery arrangement
- Maintenance and security of the unit

During this process BVN continued to develop the design with the principles agreed during previous phases of the design:

- Rooms should have large windows for patient outlook and maximise daylight within the room. Rooms, where possible, should have direct access to outdoor space to enable the patient to be taken by bed or by chair to the balcony area.
- Facade design studies to suit the new layout and provide openings for every bedroom and communal space has been undertaken.
- Rooflights provided where possible at key communal, staff and entry spaces.
- Landscape areas, bedroom external spaces, communal courtyard and staff courtyard spaces to be maximised where possible.

The schematic design developed the clinical planning, facade, landscape and interior design over three workshops. Following additional LHD comments in Workshop 3, the layout was updated for Option 2.

Generally, the location was selected given it:

- Provides the functional design briefed area.
- Supports the endorsed model of care with connectivity into the CASB.
- Provides safe and high-quality care.
- Provides culturally sensitive care.
- Provides access to expansive courtyards dedicated to palliative care.

The palliative and supportive care unit footprint is designed to connect into the CASB cores on both the east and west sides of the building. The volume is located south to maximise rooftop gardens for patients, families, visitors and staff to the north.

3.3 Construction Activities

The works are long term (15 months). The works are however relatively modest in scale and relatively isolated from any key and critical clinical functions given it will be constructed atop the Level 4 plantroom.

See the project's Preliminary Construction Management Plan at **Appendix J**.

Table 2: Project Timeframes and Construction Activities

Construction activity	Description
Commencement Date	September 2025 to December 2026
Work Duration/Methodology	15 months

Construction activity	Description
Work Hours and Duration/Construction	<p>The following hours of operation are proposed for the Works:</p> <ul style="list-style-type: none"> Monday to Friday 7.00AM to 6.00PM Saturdays 8:00AM to 1:00PM Sundays and Public Holidays No Work <p>No work will occur outside of the hours nominated unless approval has been given by Westmead Hospital.</p> <p>Deliveries of heavy machinery may be required out of the proposed hours of operation to confirm to the overriding requirements of Transport for NSW.</p>
Workforce/Employment	To be determined by the builder once engaged. However, to provide a preliminary assessment, the average number of workers during peak activities is anticipated to be 20 workers on-site per day across the duration of the project.
Ancillary Facilities	To be determined by the builder once engaged.
Plant Equipment	<p>During construction, the following equipment may be used:</p> <ul style="list-style-type: none"> articulated and fixed trucks; mobile cranes; concrete delivery trucks; concrete pumps; man and material hoists; scissor and boom lifts, and fork lifts
Earthworks	N/A
Source and Quantity of Materials	To be determined by the builder once engaged, but broadly assumed to be from within the Sydney basin / Metropolitan Sydney.
Traffic Management and Access	<p>As part of the Construction Management Plan (CMP), the Head Contractor is required to submit a Construction Traffic Management Plan (CTMP) for approval prior to commencement of the Westmead Palliative Care Works. The CTMP will detail site access, pedestrian protection measures and all associated vehicle movements which will be restricted to the permitted working hours of the site.</p> <p>Works will be planned so that access to the public car park areas will be maintained to the maximum capacity, as much as is feasible during the works. Public access to the Hospital facilities will be maintained and signed as appropriate in consultation with the Westmead Hospital.</p> <p>Significant car parking facilities are provided on site, servicing the various components of the Westmead Health Precinct. Car parking is distributed across campus to support separate access arrangements for staff and visitors. Vehicular access/egress gates will be erected internally as required. These gates will be manned by qualified traffic supervisors at the times of vehicular access and egress to the Site.</p> <p>Preliminary Site Access diagrams have been drafted to depict how the development site may be contained, serviced and accessed, including designated parking for construction staff so that Westmead Hospital and visitors are not unduly inconvenienced. The site plan will be further developed in consideration of the appointed Head Contractor's methodologies prior to commencement on site.</p>

3.4 Operational Activities

Use

The proposed use at this new part of the CASB is for palliative and supportive care purposes and is part of typical hospital-related functions. In essence no change in use of the hospital arises or is proposed to occur.

Operation Hours

The proposed use will be 24 hours per and 7 days per week. The proposed use is consistent with other hospital activities and the existing palliative and supportive care activities carried out elsewhere within the hospital presently.

Staff/Patients

The proposal involves 15 new beds with an additional estimated 34 new FTE staff.

Traffic and Parking

Based on Stantec's assessment, the proposed works generate an expected parking demand ranging between 13 and 20 parking spaces for staff and an expected parking demand of around 14 parking spaces for visitors. In total, the expected parking demand for the proposal ranges between 27 and 34 parking spaces. See discussion in Section 6 with respect to the modest changes in demand relative to existing supply of spaces within and around the Westmead Hospital campus.

4. Statutory Framework

4.1 Planning Approval Pathway

Section 4.1 of the EP&A Act states that if an EPI provides that development may be carried out without the need for development consent, a person may carry the development out, in accordance with the EPI, on land to which the provision applies. However, the environmental assessment of the development is required under Part 5 of the Act.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) aims to facilitate the effective delivery of infrastructure across the State. Division 10 of the TI SEPP outlines the approval requirements for health service facilities. A hospital is defined as a health service facility under this division.

The site is zoned ‘SP2 – Health Services Facility’ under the *Parramatta Local Environmental Plan 2023*. The SP2 zone is a prescribed zone under the TI SEPP – see **Figure 21**.

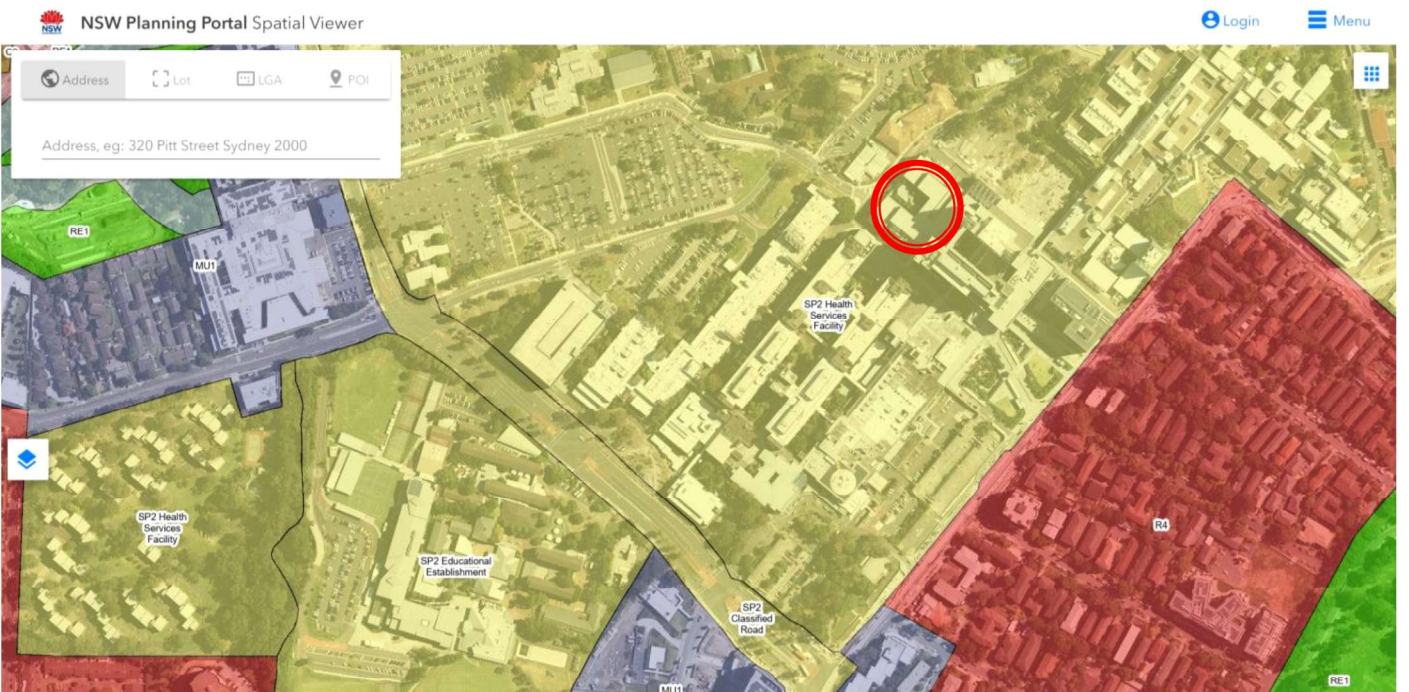


Figure 21 – Land use zoning under Parramatta LEP 2023 with the CASB circled (eplanning Spatial viewer)

Therefore, the proposal is considered an ‘activity’ for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment (via a REF). The proposal is considered an ‘activity’ in accordance with Section 5.1 of the EP&A Act because it involves the carrying out of a work, the demolition of a building or a work, and the use of land, that is not Exempt Development or prohibited under an environmental planning instrument.

TI SEPP consultation is discussed within Section 5 of this REF.

Table 3: Description of proposed activities

Division and Section within TI SEPP	Description of Works
Section 2.61(1)(a)	Alterations and additions to the CASB (to its Level 4 plant room roof to create a new Level 5 on the podium) to construct the new 15-bed palliative and supportive care unit within the same building footprint and envelope (without extending the overall height of the building) more than 5m from any property boundary.

4.2 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act do not affect the proposal as it is not development that takes place on or affects Commonwealth land or waters. Further, it is not development carried out by a Commonwealth agency or development on Commonwealth land, nor does the proposed development affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 4.

Table 4: EPBC Checklist

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No – the CASB is remote from the World Heritage listed site “Australian Convict Sites: Old Government House and Domain” set in Parramatta Park. The WCEoL project sits on the ‘blindside’ of the CASB from this listed site. The works have been assessed as having nil physical and nil visual impacts to the item.
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No – as above the works will have a nil visual and nil physical impact upon the three National Heritage items in proximity of the hospital and CASB: - Australian Convict Sites: Old Government House and Domain. - Parramatta Park Old Government House and the Government Domain. - Former Female Factory Parramatta.
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.3 Environmental Planning and Assessment Act 1979

The proposed activity is consistent with the objectives of the EP&A Act as outlined in the table below.

Table 5: Consideration of the Objects of the EP&A Act

Object	Comment
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The works support the efficient and effective operation of Westmead Hospital with new and enhanced facilities. This in turn supports and promotes the general welfare of the community.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The development's ESD credentials have been considered as part of the design and ongoing operation of the development. See further detailed ESD considerations within this REF.

Object	Comment
(c) to promote the orderly and economic use and development of land,	The new palliative care unit promotes an orderly and economic use of the site by co-locating a much-needed health service use, and thereby using area built of a modest scale capable of being accommodated onto the existing CASB.
(d) to promote the delivery and maintenance of affordable housing,	N/A
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The development / activity does not affect the environment, including threatened and other species of native animals and plants, ecological communities and their habitats in any way.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	N/A – the hospital does not contain any Aboriginal cultural heritage that may be affected by these elevated works atop the CASB. The works are within an existing building footprint where assessment of such impacts has previously been carried and found acceptable. Conversion of existing built form for new use within an emerging cluster of buildings will not impact any of the local and State heritage items on the site.
(g) to promote good design and amenity of the built environment,	The design of the palliative care unit is one limited by the scope of the project. In essence the proposed works operate to maintain the existing bulk and scale of the building but promotes good and contemporary design internally and at its interfaces externally.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The project is in itself concerned with the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	N/A.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	<p>The proposal has been notified, garnering only one public submission, and no commentary from Council, as set out in Section 5 of this REF.</p> <p>Aboriginal community representative engagement was also carried out in 2024 which generated high levels of interest and engagement with the project and garnered valuable insights into community aspirations for the palliative care space.</p> <p>By any measure, ample opportunity for community participation in environmental planning and assessment process has occurred.</p>

Duty to Consider Environmental Impact

Part 5 of the EP&A Act applies to activities that are permissible without consent and are generally carried out by a public authority. Activities under Part 5 of the EP&A Act are assessed and determined by a public authority, referred to as the determining authority. Health Infrastructure is a public authority and is the proponent and determining authority for the proposed works.

For the purpose of satisfying the objects of the EP&A Act relating to the protection and enhancement of the environment, a determining authority, in its consideration of an activity shall, notwithstanding any other provisions of the Act or the provisions of any other Act or of any instrument made under the EP&A Act or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (refer to Subsection 1 of Section 5.5 of the EP&A Act).

Section 171 of the EP&A Regulation defines the factors which must be considered when assessing the likely impact of an activity on the environment under Part 5 of the EP&A Act. Section 6 of this REF specifically responds to the factors for consideration for the activity.

Table 6 below demonstrates the effect of the proposed development activity on the matters listed for consideration in Subsection 3 of Section 5.5 of the EP&A Act.

Table 6: Matters for consideration under Subsection 3, Section 5.5 of the EP&A Act

Matter for Consideration	Impacts of Activity
Subsection 3: Without limiting subsection 1, a determining authority shall consider the effect of any activity on any wilderness area (within the meaning of the <i>Wilderness Act 1987</i>) in the locality in which the activity is intended to be carried on.	No effect, as there is no wilderness area (within the meaning of the <i>Wilderness Act 1987</i>) in the locality in which the activity is intended to be carried out on.
Note: If a biobanking statement has been issued in respect of a development under Part 7A of the <i>Threatened Species Conservation Act 1995</i> , the determining authority is not required to consider the impact of the activity on biodiversity values.	

4.4 Environmental Planning and Assessment Regulation 2021

Section 171(1) of the *Environmental Planning and Assessment Regulation 2021* notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) provides a list of environmental factors that must be taken into account for an environmental assessment of the activity under Part 5 of the EP&A Act. These factors are considered at Section 6 of this REF.

In addition, Section 171A of the *Environmental Planning and Assessment Regulation (2021)* requires the consideration of the impact an activity in a defined catchment. This is considered further below under Section 4.5 of this REF.

4.5 Other NSW Legislation

The following table lists any additional legislation that is required to be considered if it is applicable to the proposed activity.

Table 7: Other Possible Legislative Requirements

Legislation	Comment	Relevant? Yes/No
State Legislation		
<i>Rural Fires Act 1997</i>	The site is not Bushfire Prone Land.	No.
<i>Biodiversity Conservation Act 2016</i>	The area subject of the works does not contain any critical habitat, threatened species or ecological population or community.	No
<i>Water Management Act 2000</i>	The works are not within 40 metres of a mapped watercourse.	No.
<i>Contaminated Land Management Act 1997</i>	The site is not listed on the register of contaminated sites noting also the elevated nature of the site of the proposed works atop the podium of the existing building.	No.
<i>Heritage Act 1977</i>	The works will have no direct physical or visual impacts upon State heritage in proximity of the site. There are no physical or visual impacts on National heritage	No.
<i>Roads Act 1993</i>	No works are proposed to a public road, nor the pumping of water onto a public road, nor the connection of a road to a classified road	No.
<i>Local Government Act 1993</i>	Whether any water or sewer supply head works that require contribution payment as per Section 64 of the Act apply will need to be determined. This however appears highly unlikely. At the Master Plan and Schematic Design stages it was identified that the existing infrastructure has adequate capacity for sewage and potable water within the site	No.
<i>National Parks and Wildlife Act 1974</i>	An Aboriginal Cultural Heritage Assessment Report (ACHAR), in support of an Aboriginal Heritage Impact Permit (AHIP), is not required due to the existing highly disturbed nature of the site and the modest and elevated nature of the scope of works.	No.
<i>Crown Land Management Act 2016</i>	Not relevant to this REF.	No.
<i>Protection of the Environment Operations Act 1997</i>	An environment protection licence is unlikely to be triggered or required due to the relatively minor scope and duration of the works.	No.

Legislation	Comment	Relevant? Yes/No
<i>NSW Reconstruction Authority Act 2022</i>	The works respond to the broad requirements of the State Disaster Mitigation Plan (SDMP) under section 38 of the NSW Reconstruction Authority Act, in that the development is designed in response to any disaster event that may occur at the site including flooding, earthquake and the like, noting that the subject building is not on or near bushfire prone land and is unlikely to be flooded.	No.
Section 171A of the Environmental Planning and Assessment Regulation 2021	There are no direct impacts to any catchments, as defined for consideration under Section 171A of the EP&A Regulation.	No.
State Legislation Planning Policies		
State Environmental Planning Policy (Sustainable Buildings) 2022	This SEPP, and Chapter 3 in particular, does not apply to Part 5 / REF assessments.	No.
State Environmental Planning Policy (Resilience and Hazards) 2021	This hospital is not mapped as 'Coastal Use Area' nor 'Coastal Environment Area' under Chapter 2 of this SEPP. The campus is also not mapped as a Coastal Wetlands or Littoral Rainforest.	No.
State Environmental Planning Policy (Transport and Infrastructure) 2021	In the event the development relies upon permissibility, Chapter 2 of this SEPP (section 2.60(1) and section 2.59) operates to confirm the development as permissible within the SP2 zone in the event Parramatta LEP does not permit the works with consent. The SEPP otherwise provides for alternative planning approval pathways to a DA under Division 10 in relation to Health Services Facilities. Traffic-generating development requires referral to TfNSW. The modest scale of this development does not relate to the traffic-generating development thresholds.	Yes, as set out here.
Parramatta Local Environmental Plan 2023		
Zone	SP2 – Health Services Facility – see Figure 21 . The proposed land uses (<i>health services facility</i> and <i>hospital</i>) are permissible within the zone.	Yes.
Height of Buildings	N/A	No.
Floor Space Ratio	N/A	No.
Heritage	A local heritage item (I418 - Former tramway pier - adjacent to 1D Redbank Road) sits peripherally within the land parcel addressing Toongabbie Creek, some 300m to the north-west of the CASB. The site is otherwise unaffected by (and remote from) any Heritage Conservation Area. The site is also not subject to any State Heritage Register listings nor a s170 heritage register listing. See Figure 22 .	No.
Flood Planning	Not mapped as such by the LEP, but as noted earlier reference has been made to Council's "Know your flood risk" webpage which does identify large areas of the hospital as being subject to a "low risk". The CASB is not however impacted, nor would a new Level 5 upon the building's podium be impacted.	No.
Coastal Planning	N/A	No.
Acid Sulphate Soils	Class 5 soils across the whole of the hospital, noting however that no soils will be impacted by these works.	No
Terrestrial Biodiversity	Not mapped	No
Riparian Lands and Watercourses	A very minor extent of overlap between riparian lands mapping exists into the hospital's cadastral boundaries along the Toongabbie Creek frontage. This is remote from, and unaffected by, the proposal.	No

4.6 Strategic Plans

The following table lists any strategic plan that is required to be considered if it is applicable to the proposed activity.

Table 8: Consideration of the Objects of the EP&A Act

Strategic Plan	Assessment
NSW State and Premier's Priorities	<ul style="list-style-type: none"> The Minns Labor Government has not adopted the former Government's NSW State and Premier's Priorities format. In any case, the project would not be at odds, or inconsistent with, any policies in relation to improving health services within NSW or within the region, noting also the WCEoL program has committed State funding.
Future Transport Strategy	<ul style="list-style-type: none"> The proposed development is modest in scale and is not a type to be inconsistent with any of the objectives and actions associated with the Future Transport Strategy.
Movement & Place	<ul style="list-style-type: none"> Movement and Place is a cross-government framework for planning and managing roads and streets across NSW. The framework delivers on NSW policy and strategy directions to create successful streets and roads by balancing the movement of people and goods with the amenity and quality of places. The development does not affect or impact upon the Movement & Place framework given the internalised location and modest scale of the development within the Westmead Hospital campus.
Central City District Plan 2056	<ul style="list-style-type: none"> This District Plan supports Parramatta CBD's emergence as a powerhouse of new administrative, business services, judicial and educational jobs, with Parramatta Square as its heart and Western Sydney University as its knowledge-producing engine. In parallel, amongst other places, it supports the development and evolution of the world-class health and education precinct at Westmead to an innovation district with greater diversity of knowledge-intensive jobs. Westmead is one of the largest integrated health, research, education and training precincts in Australia and provides health services to almost 10 per cent of Australia's population. By 2026, it will have over 2.8 million outpatient visits and over 160,000 emergency department presentations every year. Westmead is already a major contributor to the Australian Government's National Innovation and Science Agenda through its training of world-leading scientists, analysis and successful collaborations. The Westmead Redevelopment Project is a major initiative of the NSW Government, led by NSW Health, the Western Sydney Local Health District and the Children's Hospital at Westmead. The redevelopment aims to transform Westmead into a world-class health city. <p>Whilst modest in its scale and nature, and in being an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant Planning Priorities and Actions of this Plan.</p>
Parramatta Local Strategic Planning Statement City Plan 2036	<ul style="list-style-type: none"> The Local Strategic Planning Statement City Plan 2036 (LSPS) sets out a 20-year land use planning vision. It came into effect on 31 March 2020. It balances the need for housing and economic growth, while also protecting and enhancing housing diversity, heritage and local character. Further, the LSPS aims to protect the City's environmental assets and improve the health and liveability of the City. The Westmead Health and Education Precinct, which is part of Greater Parramatta and is located immediately north west of the Parramatta CBD, seeks to cluster health and education precincts with supporting industries to create agglomeration synergies (Westmead and Parramatta North Precinct) and the transformation of heavy industrial land into land used to deliver urban services and advanced technologies (Rydalmere and parts of Camellia). The Central City District Plan sees this precinct as a world-class innovation district. The precinct is presently subject to the preparation of a new Strategic Plan for the whole of Westmead as part of the Department of Planning, Industry and Environment's (DPIE) new approach to precincts. Detailed planning will be done by Council in collaboration with DPIE as a part of this new precinct planning approach. The plan is principally focussed on jobs and housing targets across the LGA and in relation to Westmead generally. The Local Planning Priorities with an association to Westmead, include: <ul style="list-style-type: none"> Expand Parramatta's economic role as the Central City of Greater Sydney; Advocate for improved public transport connectivity to Parramatta CBD from the surrounding district Focus housing and employment growth in the GPOP and Strategic Centres; as well as stage housing release consistent with the Parramatta Local Housing Strategy (when endorsed) Build the capacity of the Parramatta CBD, Strategic Centres, Local Centres and Employment Lands to be strong, competitive and productive Retain and enhance Local Urban Service Hubs for small industries, local services and last-mile freight and logistics <p>Again, whilst modest in its scale and nature, and in being an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant Planning Priorities and Actions of this Plan.</p>

Strategic Plan

Assessment

Westmead Place Strategy

- The Westmead Place Strategy has been finalised by the NSW Department of Planning and Environment. The Strategy will guide the continued evolution of Westmead to 2036 as it becomes a world-class health and innovation district with exceptional place outcomes for workers and residents.
- The place strategy applies to land in Westmead and parts of Northmead and Parramatta North. It does not involve rezoning but will guide councils, state agencies and the private sector on land use planning and outlines steps to ensure investment and infrastructure is aligned to anticipated growth.
- The place strategy aims to:
 - Drive new jobs in health, education and innovation.
 - Put people at the centre of future development, with a focus on pedestrian-friendly streets and provision of community amenities.
 - Protect heritage buildings and find ways they can be repurposed for new community uses, where appropriate.
 - Improve pedestrian and cycling paths between Westmead North and South, Parramatta Park and Parramatta CBD.
 - Promote housing density and diversity, such as student accommodation, key worker, social and affordable housing where appropriate.
 - Ensure population growth is accompanied by more open space and social infrastructure.
- The Minister for Planning and Homes adopted the place strategy and a Ministerial Direction under Section 9.1 of the *Environmental Planning and Assessment Act 1979*. This direction requires any future planning proposals within the precinct to be consistent with the place strategy.
- Councils and other stakeholders will need to prepare further studies and strategies to investigate the potential development opportunities within the precinct. Any future rezoning of the area will be initiated by councils, landowners or proponent agencies generally through the planning proposal process.
- The Department and Transport for NSW in collaboration with councils will prepare an integrated transport and traffic study to progress the initiatives of the Place-based Transport Strategy, and support any future rezoning in the precinct.
- It is recognised that there is a significant level of interest in how Westmead and North Parramatta will transform to 2036. The department will continue to work with the Greater Cities Commission, who are coordinating a whole-of-government delivery response across the key health and innovation precincts in the strategy.

As stated above, being modest in its scale and nature, and of an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant parts of this Strategy.

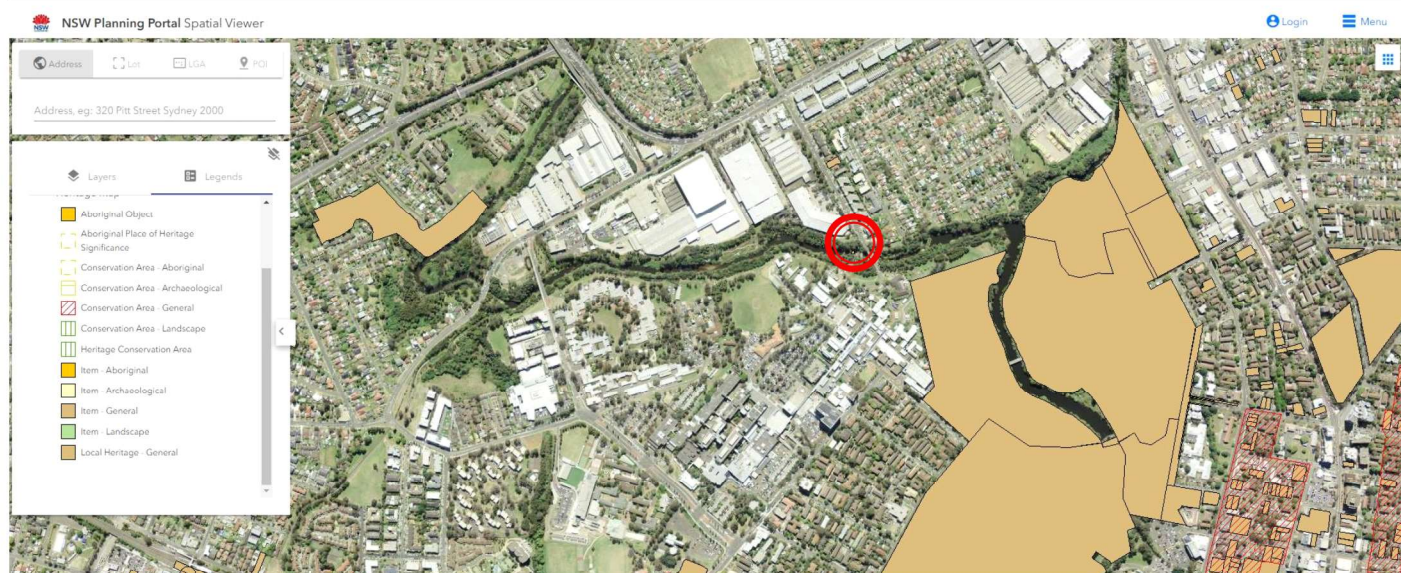


Figure 22 – Heritage mapping under Parramatta LEP 2023 with Item I418 circled (eplanning Spatial viewer)

5. Consultation

5.1 Statutory Consultation

The REF scope of works was notified for 21 calendar days to Parramatta City Council (by email) and occupiers of adjoining land (via a letterbox drop), as required by section 2.62 of the TISEPP – see Table 9.

The notification commenced on 21 August 2024 and concluded on 11 September 2024. In total, 130 letters were placed in letterboxes of adjoining occupiers of land or otherwise hand delivered. The following addresses (all unit blocks of various heights and densities) were notified by letterbox drop – as per **Figure 23**:

- 32 Jessie Street, Westmead
- 27 Helen Street, Westmead
- 31 Helen Street, Westmead
- 29 Helen Street, Westmead
- 191 Hawkesbury Road, Westmead
- 189 Hawkesbury Road, Westmead
- 185 Hawkesbury Road, Westmead
- 181 Hawkesbury Road, Westmead

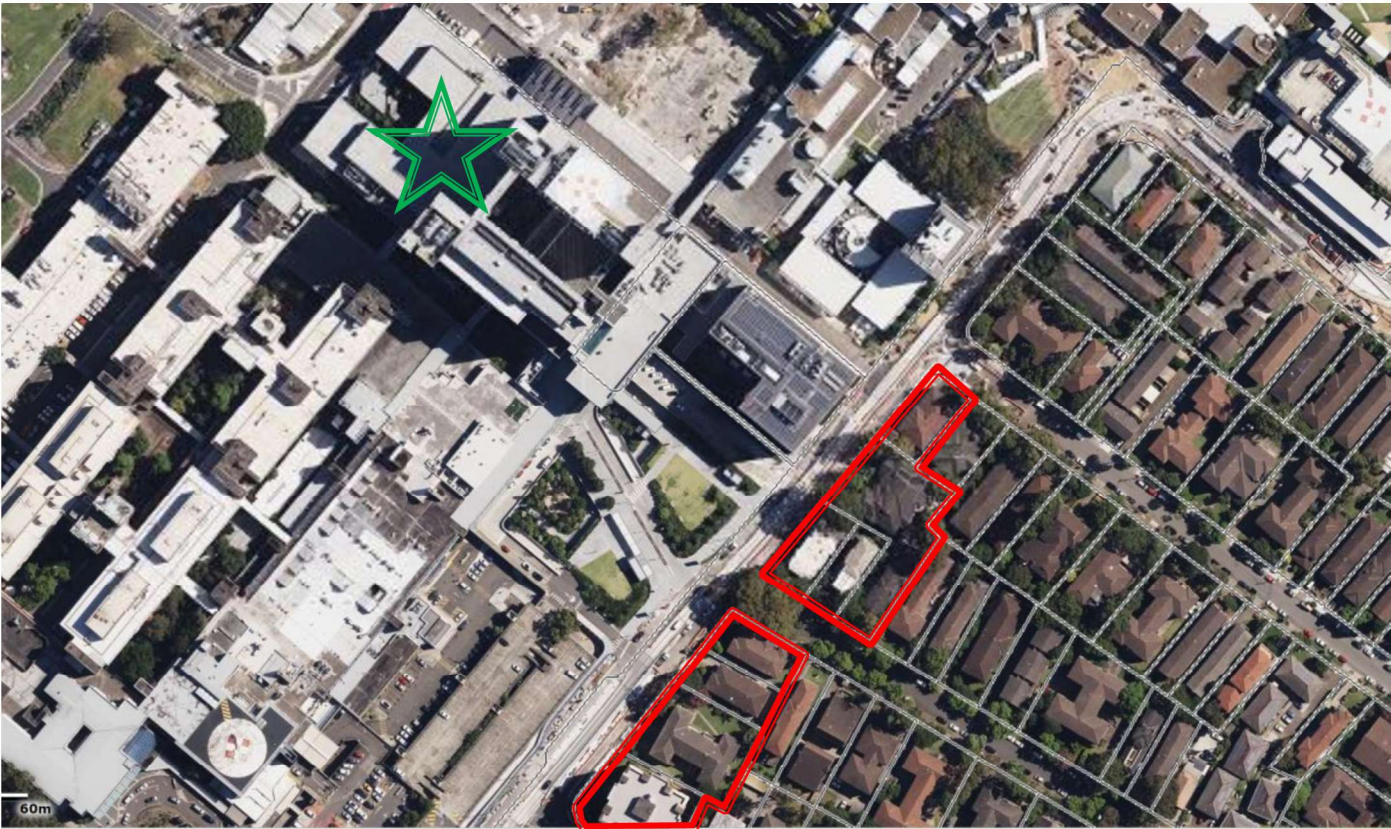


Figure 23 – Extent of notification to adjoining occupiers of land in areas bounded red (SixMaps)

No further notification requirements arose with respect to the site conditions or the scope of works.

Table 9: Stakeholders required to be notified

Stakeholder	Relevant Section
Parramatta City Council	Section 2.62
Occupiers of adjoining land	Section 2.62

Copies of the notification letters and drawing issued are found at **Appendix K**.

One (1) public submission was received from a Hawkesbury Road neighbour of the hospital campus. Parramatta City Council did not respond to the notification process.

The public submission (see **Appendix L**) sought information on the following questions, to which HI responded on 17 September 2024 (also see **Appendix L**).

- Will there be development works at night?
- How will the development impact daily traffic on Hawkesbury Road during the development? Traffic on Hawkesbury Road can already be congested during peak hour.

As a general response, there are no night-time works proposed and standard construction hours of Monday to Friday 7am to 6pm and Saturdays 8am to 1pm will be employed, with occasional work outside of the hours possible. Note also based on the acoustic assessment carried out by Acor, the construction activities, based on the straight-line distance calculation from proposed site boundary and closest residential land use zone, no predicted impacts to residential amenity are anticipated during any of the designated standard work periods.

With respect to construction traffic, no access is proposed and expected to the CASB via Hawkesbury Road, particularly in light of the soon-to-commence light rail services running within the centre of Hawkesbury Road limiting through traffic to a single lane in each direction. Construction access is anticipated directly into the hospital to and from Dragonfly Drive (via Mons Road/ Darcy Road) remote from direct impacts upon Hawkesbury Road. Traffic flows upon Hawkesbury Road are unlikely to be affected.

Rural Fire Services

No notification or consultation is triggered with the Rural Fire Service in this instance. The entirety of the Westmead Hospital campus is not mapped as bush fire prone land under section 10.3 of the *EP&A Act*.

5.2 Community and Stakeholder Engagement

Non-statutory community and stakeholder engagement has occurred with respect to this project since its inception with a range internal and external stakeholders. Some engagement remains as part of the detailed design and implementation process. Details of the WCEoL project’s Westmead Hospital-specific Communications and Engagement Strategy as well as Aboriginal community representative engagement is set out below and found at **Appendix M**.

An overview of the comments received are outlined and responded to in the table below.

Table 10: Other consultation (non-statutory)

List of community engagement activities	Date	Feedback	Project response
Aboriginal Community members and Elders	24 July 2024	<div>The consultation feedback focussed on:<ul style="list-style-type: none">• Design<ul style="list-style-type: none">○ The unit should feel like home○ Aboriginal artwork○ Beds and carer furniture○ Tables○ Colour palette○ The small things are important○ Entertainment for children○ Outdoor spaces○ Parking○ Family accommodation○ Cultural practices</div>	<div>A homely environment is a key design principle and will continue to inform design going forward.</div> <div>Arts in Health is an important part of the design process which will be further explore during the next phase of design.</div> <div>The new unit aims to have cuddle beds that can fit 2 people. The specification for the beds will be determined during the next phase of design. Beds will be flexible and not fixed to the wall. The beds will be able to be moved outside each room. Carer furniture will be considered later in the design however furniture needs to be flexible and consider space.</div> <div>Big tables for families will be considered in the next phase of design.</div>

List of community engagement activities	Date	Feedback	Project response
		<ul style="list-style-type: none"> ○ Rooms ○ Cultural symbols ○ Positive experiences 	<p>The colour palette is an important part of creating a homelike feel and it will continue to be refined throughout the design process.</p> <p>WiFi to facetime family will be provided.</p> <p>A family area will be included as part of the Unit which will consider what kids need for entertainment and to also be accommodated in their journey.</p> <p>There will be flexibility in how far people can venture outside. The outside area will be designed to provide for privacy outside of the rooms with dividers. The dividers may include plants and would need to be of a height also suitable for nursing staff to have visibility of patients.</p> <p>Parking arrangements will be the same as what currently exists for Westmead. Family will get a swipe card. Train station and light rail access provide another way to visit.</p> <p>Parking will be right outside K Block near the unit. The ease of parking helped inform the specific location. Parking is also available on Hawkesbury Road.</p> <p>There is a volunteer buggy service available at Westmead Hospital that can be accessed by all visitors requiring additional mobility assistance.</p> <p>Parking generally is acknowledged as an issue for many people.</p> <p>Several apartments have been refurbished and are now functioning within the Westmead Accommodation Complex on Darcy Road, Westmead.</p> <p>Accommodation is also available for people who need to come in from the country for treatment and their families.</p> <p>It was noted that it is now the practice that family is consulted as part of the model of care process.</p> <p>The design will accommodate spaces where ceremonies can be performed.</p> <p>The cultural box idea has been noted for consideration during the commissioning stage.</p> <p>Native plants will be incorporated into the design of the outdoor area – this will be the next stage of design.</p>
		<ul style="list-style-type: none"> ● Models of care <ul style="list-style-type: none"> ○ Personal grooming and services ○ Podiatry ○ Visiting hours ○ Advocacy ○ Negative experiences 	<p>The rooms will allow for mobile visitors to come in for personal services.</p> <p>It is acknowledged that sensitivity is needed and visiting arrangements should be managed on a case-by-case basis. Carers can usually stay if their loved one's condition is changing. It was acknowledged that depending on the patient's condition, patient rest period should be taken into consideration. Staff will strive to meet specific family needs where possible.</p> <p>Sorry business is very important, and we acknowledge this.</p>

List of community engagement activities	Date	Feedback	Project response
			<p>It is agreed that advocacy very important, especially in supportive and palliative care.</p> <p>We acknowledge that there needs to be recognition of when supportive and palliative care is needed, and advocacy is important. A part of this is close and honest consultation with the family. Appropriate recommendations on treatment need to be advised. These are hard conversations and sometimes patients and families may wish to pursue treatment. The supportive and palliative care unit will create training opportunities for other staff so they can learn how to provide high quality supportive and palliative care across the system.</p>

Other engagement and consultation to date has included the following, as set over, as derived from the 'World Class End of Life Care Program - Westmead Supportive and Palliative Care Unit - Communications & Engagement Action Plan'.

Date	Milestone	Activity	Communications and engagement activity
June 2021	Program announcement	Media	Westmead Hospital was included in the program announcement with then NSW Premier, Dominic Perrottet
11 Aug 2023	Master planning and concept design underway	Media	Expression of interest media announcement by NSW Minister for Health, Ryan Park
End 2023	Master plan and concept design	Community engagement	Consumer engagement via Project User Group EOI issued for future community consultation and thank you email sent
Early 2024	Schematic design	Aboriginal engagement	<p>Targeted Aboriginal community consultation mid 2024 via Aboriginal Health Palliative Care team – awaiting advice</p> <p>Presentation to Aboriginal Staff conference approx. 100 people – completed February 2024</p> <p>Presentation to WSLHD Aboriginal Consumer Council – progress update TBC</p>
		Community & consumer engagement	<p>Ongoing schematic design meetings</p> <p>Presentation to WSLHD consumer councils – progress update TBC</p> <p>Consumer representatives site visit consultation report - completed March 2024</p> <p>WSLHD web page, fact sheet – April 2024</p> <p>Consumer story for The Pulse – April 2024</p> <p>Journey maps consultation meeting March 2024 – update and add to website in April for further consultation</p> <p>Youth Council meeting - April 2024 awaiting confirmation</p> <p>Survey and fact sheet for EOI respondents – April 2024</p> <p>EOI information sessions x 2 (F2F or online TBC from survey) – if required, May 2024</p>
		Multicultural community engagement	<p>As advised by Multicultural Health team – via survey</p> <p>Fact sheet translations if required</p>
		Staff engagement	<p>Ongoing schematic design meetings</p> <p>Information via internal newsletter, The Regular Dose and The Pulse</p>

Mid 2024	Schematic design completion	Media	Media announcement for artist impressions of the new unit
		Consumer and community engagement	Stories developed for The Pulse, WSLHD socials Information for community via WSLHD website, The Pulse Fact sheet update for website and printed for Supportive & Palliative care unit team to share with patients and carers Project banner/poster for display as required Ongoing consultation for detailed design Pop-up information session for patients and visitors
		Staff engagement	Information for staff via The Regular Dose, The Pulse and internal newsletter Plans for display in staff area Pop-up information session for staff

The engagement and consultation program will continue and extend into the tender award, construction, commissioning, and opening with first patients processes and milestones.

6. Environmental Impact Assessment

6.1 Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

Section 171(1) of the *Environmental Planning and Assessment Regulation 2021* notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the environmental factors guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments (June 2022)* apply to the activity. The relevant assessment considerations under Section 3 of these Guidelines are provided below:

Table 11: Summary of Environmental Factors Reviewed in Relation to the Activity

Relevant Consideration	Response/Assessment		
(a) Any environmental impact on a community	The proposal will have a generally positive ongoing impact on the health services provided by the hospital for the community of Western Sydney and the broader region within WSLHD's catchment. During construction a minor increase in trucks and construction operations may have a noise impact, however, this will be managed and mitigated through appropriate measures during works.	-ve	Short term traffic and noise impacts during construction noting the relative isolation of the works from sensitive external receivers.
		Nil	
		+ve	Long term once operational
(b) Any transformation of a locality	As the works will sit within the footprint and height plane of the existing CASB there will be only a modest change to the nature of the locality, noting the development of other taller, denser developments presently under construction will ultimately encircle this addition to the CASB. The hospital's scale, function, and appearance will generally remain the same as a result of these works.	-ve	
		Nil	X
		+ve	
(c) Any environmental impact on the ecosystems of the locality	The proposal will not result in the loss of any trees. The works have no environmental impact on the ecosystems of the locality.	-ve	
		Nil	X
		+ve	
(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	There will be no reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality. The works are confined to existing developed and disturbed areas of the hospital campus and in areas set back from other adjoining land uses.	-ve	
		Nil	X
		+ve	
(e) Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations	The proposal will not have any adverse effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations.	-ve	
		Nil	X
		+ve	
(f) Any impact on the habitat of protected animals (within the	No protected fauna (within the meaning of the <i>Biodiversity Conservation Act 2016</i>) will be impacted by the proposal given the urban and disturbed context of the	-ve	
		Nil	X

Relevant Consideration		Response/Assessment		
	meaning of the <i>Biodiversity Conservation Act 2016</i>)	hospital campus and the nature of the works, particularly being elevated atop Level 4's rooftop of the CASB's podium.	+ve	
(g)	Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	The proposal will not endanger any species or animal or plant as no works occur outside of the developed areas of the campus or that of the general envelope of the CASB.	-ve	
			Nil	X
			+ve	
(h)	Any long-term effects on the environment	There will be no long-term or permanent adverse or negative impact on the natural or man-made environment as a result of the construction or operation of the development.	-ve	
			Nil	X
			+ve	
(i)	Any degradation of the quality of the environment	The proposal will not reduce the quality of the natural environment, noting no vegetation or trees are impacted or lost.	-ve	
			Nil	X
			+ve	
(j)	Any risk to the safety of the environment	There will be no risk to the safety of the environment as a result of the proposal.	-ve	
			Nil	X
			+ve	
(k)	Any reduction in the range of beneficial uses of the environment	There will be no reduction in the range of beneficial uses of the environment as a result of the proposal.	-ve	
			Nil	X
			+ve	
(l)	Any pollution of the environment	Indirectly, under the DGN 058, the works will in part improve the campus' existing ESD credentials and result in a Green Star equivalent development and which also improves upon the BCA's Section J ESD requirements by at least 10% and any concomitant pollution-generating activities related to energy production and usage, transportation, and other production of building materials.	-ve	
			Nil	
			+ve	X
(m)	Any environmental problems associated with the disposal of waste	The works generally result in demolition-related waste (of which none is likely to be hazardous or contaminated materials for which routine waste classification and removal and disposal methods is required given the recent construction and completion of the CASB. Ongoing clinical and hospital waste will be addressed through currently employed contemporary waste handling methods.	-ve	
			Nil	X
			+ve	
(n)	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	The proposal will not result in increased demand on resources (natural or otherwise) that are, or are likely to become, in short supply, noting that under DGN 058 the works will in part improve the campus' existing ESD credentials and result in a Green Star equivalent development which also improves upon the BCA's Section J ESD requirements by at least 10%.	-ve	
			Nil	
			+ve	X
(o)	Any cumulative environmental effects with other existing or likely future activities	See further detailed discussion below. Other developments encircling the CASB are presently under various stages of construction within the campus and the adjacent The Children's Hospital Westmead. Given the modest comparative nature of this project and its construction including its later timing, the works are unlikely to significantly impact the environment should these works be carried out concurrently.	-ve	
			Nil	X
			+ve	
(p)	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	N/A – the site is well removed from coastal areas of NSW.	-ve	
			Nil	X
			+ve	
(q)	Applicable local strategic planning statement, regional strategic plan	Central City District Plan 2056	-ve	
			Nil	

Relevant Consideration	Response/Assessment		
or district strategic plan made under Division 3.1 of the Act	<ul style="list-style-type: none"> This District Plan supports Parramatta CBD's emergence as a powerhouse of new administrative, business services, judicial and educational jobs, with Parramatta Square as its heart and Western Sydney University as its knowledge-producing engine. In parallel, amongst other places, it supports the development and evolution of the world-class health and education precinct at Westmead to an innovation district with greater diversity of knowledge-intensive jobs. Westmead is one of the largest integrated health, research, education and training precincts in Australia and provides health services to almost 10 per cent of Australia's population. By 2026, it will have over 2.8 million outpatient visits and over 160,000 emergency department presentations every year. Westmead is already a major contributor to the Australian Government's National Innovation and Science Agenda through its training of world-leading scientists, analysis and successful collaborations. The Westmead Redevelopment Project is a major initiative of the NSW Government, led by NSW Health, the Western Sydney Local Health District and the Children's Hospital at Westmead. The redevelopment aims to transform Westmead into a world-class health city. <p>Whilst modest in its scale and nature, and in being an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant Planning Priorities and Actions of this Plan.</p> <p>Parramatta Local Strategic Planning Statement City Plan 2036</p> <ul style="list-style-type: none"> The Local Strategic Planning Statement City Plan 2036 (LSPS) sets out a 20-year land use planning vision. It came into effect on 31 March 2020. It balances the need for housing and economic growth, while also protecting and enhancing housing diversity, heritage and local character. Further, the LSPS aims to protect the City's environmental assets and improve the health and liveability of the City. The Westmead Health and Education Precinct, which is part of Greater Parramatta and is located immediately north west of the Parramatta CBD, seeks to cluster health and education precincts with supporting industries to create agglomeration synergies (Westmead and Parramatta North Precinct) and the transformation of heavy industrial land into land used to deliver urban services and advanced technologies (Rydalmere and parts of Camellia). The Central City District Plan sees this precinct as a world-class innovation district. The precinct is presently subject to the preparation of a new Strategic Plan for the whole of Westmead as part of the Department of Planning, Industry and Environment's (DPIE) new approach to precincts. Detailed planning will be done by Council in collaboration with DPIE as a part of this new precinct planning approach. The plan is principally focussed on jobs and housing targets across the LGA and in relation to Westmead generally. The Local Planning Priorities with an association to Westmead, include: <ul style="list-style-type: none"> Expand Parramatta's economic role as the Central City of Greater Sydney; Advocate for improved public transport connectivity to Parramatta CBD from the surrounding district Focus housing and employment growth in the GOP and Strategic Centres; as well as stage housing release consistent with the Parramatta Local Housing Strategy (when endorsed) Build the capacity of the Parramatta CBD, Strategic Centres, Local Centres and Employment Lands to be strong, competitive and productive Retain and enhance Local Urban Service Hubs for small industries, local services and last-mile freight and logistics <p>Again, whilst modest in its scale and nature, and in being an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant Planning Priorities and Actions of this Plan.</p>	+ve	X

Relevant Consideration	Response/Assessment		
	<p>Westmead Place Strategy</p> <ul style="list-style-type: none"> The Westmead Place Strategy has been finalised by the then NSW Department of Planning and Environment. The Strategy will guide the continued evolution of Westmead to 2036 as it becomes a world-class health and innovation district with exceptional place outcomes for workers and residents. The place strategy applies to land in Westmead and parts of Northmead and Parramatta North. It does not involve rezoning but will guide councils, state agencies and the private sector on land use planning and outlines steps to ensure investment and infrastructure is aligned to anticipated growth. The place strategy aims to: <ul style="list-style-type: none"> Drive new jobs in health, education and innovation. Put people at the centre of future development, with a focus on pedestrian-friendly streets and provision of community amenities. Protect heritage buildings and find ways they can be repurposed for new community uses, where appropriate. Improve pedestrian and cycling paths between Westmead North and South, Parramatta Park and Parramatta CBD. Promote housing density and diversity, such as student accommodation, key worker, social and affordable housing where appropriate. Ensure population growth is accompanied by more open space and social infrastructure. The then Minister for Planning and Homes adopted the place strategy and a Ministerial Direction under Section 9.1 of the Environmental Planning and Assessment Act 1979. This direction requires any future planning proposals within the precinct to be consistent with the place strategy. Councils and other stakeholders will need to prepare further studies and strategies to investigate the potential development opportunities within the precinct. Any future rezoning of the area will be initiated by councils, landowners or proponent agencies generally through the planning proposal process. The Department and Transport for NSW in collaboration with councils will prepare an integrated transport and traffic study to progress the initiatives of the Place-based Transport Strategy, and support any future rezoning in the precinct. It is recognised that there is a significant level of interest in how Westmead and North Parramatta will transform to 2036. The department will continue to work with the Greater Cities Commission, who are coordinating a whole-of-government delivery response across the key health and innovation precincts in the strategy. <p>As stated above, being modest in its scale and nature, and of an ancillary function to the overall operation of the hospital, the proposal is not at odds or inconsistent with the relevant parts of this Strategy.</p>		
(r) Any other relevant environmental factors	None identified.	-ve	
		Nil	X
		+ve	

6.2 Identification of Issues

6.2.1 Traffic, Access and Parking

Questions to consider	Yes	No
Will the works affect traffic or access on any local or regional roads?		X
Will the works disrupt access to private properties?		X
Are there likely to be any difficulties associated with site access?		X

Questions to consider	Yes	No
Are the works located in an area that may be highly sensitive to movement of vehicles or machinery to and from the work site (i.e. schools, quiet streets)?		X
Will full or partial road closures be required?		X
Will the proposal result in a change to onsite car parking?	X Temporarily only	
Is there onsite parking for construction workers?	X Public spaces	

Stantec has undertaken a traffic and transport assessment of the proposed works, particularly in relation to parking supply and demand, as well as construction-related matters – see **Appendix N**.

Parking and Traffic

As noted, the proposed works generate an expected parking demand ranging between 13 and 20 parking spaces for staff and an expected parking demand of around 14 parking spaces for visitors. In total, the expected parking demand for the proposal ranges between 27 and 34 parking spaces.

The existing parking supply at and around the hospital campus is some 1,770 publicly available spaces in the surrounding area including approximately 960 unrestricted spaces with at least 1,322 staff and visitor spaces located within the hospital. Any new demand arising would be only a small fraction (0.01%) of the overall supply available.

Stantec concludes that overall, the generated parking demand as part of the WCEoL project is minor in the context of the substantial parking supply both on site and on-street close to the site. This parking demand is expected to be absorbed into this existing supply.

On-site staff parking demand would be integrated with WSLHD's existing parking permit system, associated eligibility criteria and waiting list arrangements, and subject to the Ministry of Health standard parking charges. The staff parking demand of up to 20 spaces would be readily absorbed into these existing arrangements.

Visitor parking demand would also be absorbed into the existing visitor car parking servicing the CASB, with the demand for around 14 parking spaces within daily fluctuations in visitor parking demand and therefore of no impact on existing arrangements.

No further mitigation measures are considered warranted in this circumstance.

The WCEoL proposal is expected to result in a very minor uplift in traffic. As such, the overall traffic impact is expected to be negligible and is not expected to not have any adverse impact on the function, operation, or safety of the surrounding road network.

Construction Traffic

Stantec also advises that whilst limited construction planning detail was available for its report, based on similar projects it is expected that there would be approximately 20 workers and associated vehicles on-site per day, along with 10-15 heavy vehicles (up to 30 heavy vehicle movements across the day), with construction worker parking and a construction vehicle staging area available within the existing contractor's compound in the northwest corner of the campus.

The appointed Principal Contractor would be responsible for preparing a detailed Construction Traffic Management Plan and associated Traffic Guidance Schemes, which would be able to appropriately manage and mitigate any potential impacts on traffic, pedestrians, cyclists, public transport and emergency vehicles.

Mitigation measures related to the development of a detailed Construction Traffic Management Plan as part of the detailed Construction Management Plan. See the Mitigation Measures arising from the assessment of this project at **Appendix W**.

6.2.2 Noise and Vibration

Questions to consider	Yes	No
Are there residential properties or other sensitive land uses or areas that may be affected by noise from the proposal during construction (i.e. schools, nursing homes, residential areas or native fauna populations)?	X Hospital and distant residences	
Will any receivers be affected by noise for greater than three weeks?	X	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?		X Hospital only
Will the works be undertaken outside of standard working hours? That is: <ul style="list-style-type: none"> Monday - Friday: 7am to 6pm; Saturday: 8am to 1pm; Sunday and public holidays: no work. 		X
Will the works result in vibration being experienced by any surrounding properties or infrastructure?		X
Are there any impacts to the operation of helipads on the activity site?		X

Acor has prepared a Noise and Vibration Impact Assessment – see **Appendix O**. The objectives of this assessment were to broadly:

- Identify noise sensitive receivers that will potentially be affected by the construction activities associated with the project.
- Determine existing ambient and background noise levels at the nearest noise sensitive receivers in the vicinity of the project.
- Establish the appropriate noise assessment criteria in accordance with the relevant standards and guidelines.
- Carry out an assessment to determine whether the relevant criteria can be achieved based on the proposed construction activities.
- Where applicable, provide recommendations are made for reasonable and feasible measures to be incorporated into the project in order to ensure compliance with the assessment criteria.

Construction Noise and Vibration

Proposed base construction hours are as follows, which are consistent with the ICNG Standard Construction Hours:

- Monday to Friday - 7:00am to 6:00pm.
- Saturday - 8:00am to 1:00pm.
- Sunday and Public Holidays – No works.

Based on the likely types of plant and equipment to be used during construction and its associated activities, Acor has predicted the following based on a quantitative assessment:

- It is understood that the majority of works will be enclosed by the project site and thus impacts to external receivers will be minimum. However, the construction activity might risk causing elevated internal noise levels within adjacent functional areas of the building.
- All construction activity is expected to occur during recommended standard hours therefore sleep disturbance impacts at the neighbouring residential receivers are not expected.
- The increase in vehicle movements would be limited to the period of construction. Noise level increases due to construction traffic would not be significant when compared with the existing vehicle numbers in the study area.

Acor determined that the nearest noise sensitive receivers to the activity (both construction works and operation) would be primarily the hospital itself. Residential buildings are located 200m to the south-east of the proposed development which are mostly acoustically shielded by the high-rise hospital buildings. Based on the straight-line distance calculation from proposed site boundary and closest residential land use zone there are no predicted impacts to residential amenity during any of the designated standard work periods. All construction activity is expected to occur during recommended standard hours therefore sleep disturbance impacts at the neighbouring residential receivers are not expected.

Notwithstanding, a range of standard mitigation measures have been set out by Acor which should be implemented into a final Construction Noise and Vibration Management Plan (CNVMP).

It is recommended that the following mitigation measures should be adopted.

- Construction should be undertaken within an enclosed area.
- Construction should be adopted during daytime period in consultation with the client.
- Recommend use of flexible noise barriers with internal absorptive finishes (i.e Echo Barrier H10, Flexshield)
- Minimise voices and reduce the radio/music noise.

Notwithstanding, and additionally, to address the range of construction noise matters arising, Acor has recommended a range of general control elements as noise mitigation measures or strategies, which include Management Control, Source Control, and Path Control measures:

- Site inductions.
- Behavioural practices.
- Attended vibration measurements.
- Construction hours and scheduling.
- Construction respite period during normal hours and out-of-hours work.
- Equipment selection.
- Plan worksites and activities to minimise noise and vibration.
- Reduced equipment power.
- Non-tonal and ambient sensitive reversing alarms.
- Minimise disturbance arising from delivery of goods to construction sites.
- Shield sensitive receivers from noisy activities.

Vibration

Based on the likely types of plant and equipment to be used during construction and its associated activities, it is not expected that these will generate vibration levels exceeding relevant criteria at any external receiver. Ground borne noise from the likely construction activities is not anticipated to be audible above airborne noise inside residential receivers, and will not require specific controls.

In areas adjacent to the existing hospital, structure-borne noise will have the greatest impact from sources such as hammer drills, jackhammers and saws where there is contact with the structure. It is not possible to confirm the extent of impact without detailed assessment understanding of the structure (construction joints etc) and / or pilot testing.

It will be critical to consult with users and stakeholders to practically schedule noisy and vibration intensive works around nearby areas (including concrete saws and jackhammers). Vibration usually has the greatest impact on medical imaging areas and/or operating theatres and the like.

To address possible vibration impacts, Acor has recommended the following mitigation measures:

- During construction activities, the recommended vibration levels should be complied at all times with DIN 4150 and NSW DEC Assessing Vibration: A Technical Guideline (2006).
- If there is any risk of vibration exceedance, a vibration monitoring system should be installed, to warn the Head contractor and the Operators (via flashing light, audible alarm, SMS, etc) when vibration levels are approaching to the criteria.

To address these impacts and implement the recommended management tools beyond the planning stage it is proposed (through the Mitigation Measures at **Appendix W**) to require a Construction Noise and Vibration Management Plan (CNVMP) to be prepared by the contractor. Implementation of all reasonable and feasible mitigation measures for all works will ensure that any adverse noise impacts to surrounding residential and hospital receivers are minimised.

Operational Noise

Mechanical plant and equipment associated with the operation of the development is not yet known, notwithstanding, to achieve appropriate acoustic outcomes, mechanical plant and equipment is to be controlled to ensure external noise emissions are not intrusive and do not impact on the amenity of neighbouring hospital and other receivers in accordance with the relevant criteria.

Recommendations are provided for noise controls to key plant. During the detailed design stage, the acoustic consultant shall provide detailed design advice to the architect and mechanical engineer to ensure that noise emissions from mechanical plant are effectively controlled to meet the relevant criteria of NSW EPA Noise Policy for Industry 2017 at the nearest receiver boundaries.

The project's Mitigation Measures at **Appendix W** have incorporated the Acor recommendations to ensure appropriate treatment of the noise and vibration environment at and around the hospital results during both construction and operation.

See the Mitigation Measures arising from the assessment of this project at **Appendix W**.

6.2.3 Air Quality and Energy

Questions to consider	Yes	No
Could the works result in dust generation?	X (minor and predominantly within the localised area within the hospital)	
Could the works generate odours (during construction or operation)?	X (Minor)	
Will the works involve the use of fuel-driven heavy machinery or equipment?		X (partly e.g. crane if not electric)
Are the works located in an area or adjacent to land uses (e.g. schools, nursing homes) that may be highly sensitive to dust, odours or emissions?	X (Hospital only)	X (Other sensitive receivers are remote from the CASB)

Potential sources of air and odour emissions are likely to be principally associated with movement of plant/vehicles and construction materials and the use of fuels (for equipment/plant etc.). Some dust-generating works are likely to arise where works occur to the existing podium rooftop slab.

A prior qualitative assessment of potential health and nuisance impacts associated with emissions to air, specifically dust, and odours for the Wyong WCEoL project was performed in accordance with relevant NSW Environment Protection Authority (EPA) guidelines and also industry best practice guidance. Those potential sources of air emissions were assessed to be adequately managed via implementation of appropriate controls and monitoring of air quality impacts (if any) for the duration of that works program. The same can be applied with respect to the WCEoL Westmead project.

These management measures (as included in Section 6 of the Air Quality Impact Assessment for the WCEoL Wyong project) include:

- Development of an Air Quality Management Strategy, including the matters numbered 01-36 as set out in Table 6.1 of that assessment.
- Diesel Particulate Matter Exposure Monitoring.
- Real - Time Respirable Particulate (Dust) Monitoring.
- Visual Monitoring.
- Dust Management.
- Odour Management (as may be required).

These can be relevantly applied in this instance. See the Mitigation Measures arising from the assessment at **Appendix W**.

6.2.4 Soils and Geology

Questions to consider	Yes	No
Will the works require land disturbance?		X
Are the works within a landslip area?		X
Are the works within an area of high erosion potential?		X
Could the works disturb any natural cliff features, rock outcrops or rock shelves?		X
Will the works result in permanent changes to surface slope or topography?		X
Are there acid sulfate soils within or immediately adjacent to the boundaries of the work area? And could the works result in the disturbance of acid sulfate soils?		X
Are the works within an area affected by salinity?		X
Is there potential for the works to encounter any contaminated material?		X

The works are wholly contained to the Level 4 rooftop of the CASB and do not affect any soils or geology. No stormwater run-off impacts are likely to arise. The handling and storage of building materials at-grade outside of the works on the CASB will be subject to a construction management plan, noting that this will potentially be upon sealed surfaces.

Contamination is addressed further below in Section 6.2.13 of this REF.

No additional mitigation measures beyond the need to complete a final construction management plan are proposed.

Coastal risks

Questions to consider	Yes	No
Are the works affected by any coastal risk/hazard provisions?		X
Is any coastal engineering advice required, proportionate to the proposed activity?		X

6.2.5 Hydrology, Flooding and Water Quality

Questions to consider	Yes	No
Are the works located near a natural watercourse?		X
Are the works within a Sydney Drinking Water Catchment?		X

Questions to consider	Yes	No
Are the works located within or near a floodplain?		X
Will the works intercept groundwater?		X
Will a licence under the <i>Water Act 1912</i> or the <i>Water Management Act 2000</i> be required?		X
Has stormwater management been adequately addressed?		N/A

Water Management

The only likely stormwater management matter likely to arise is the ability to drain the open and exposed areas of the courtyard once operational. To address this WSce (the project's hydraulic engineer) has designed a drainage system with gutters to the north and south of the courtyard to collect and dispose of any water not otherwise retained within the permeable landscaping on the rooftop. The gutters will feed into the existing CASB drainage system. The WSce rooftop drainage drawing is included as part of **Appendix H**.

Flooding

As the works are within and atop the existing CASB at the new Level 5 no Flood Impact Assessment has been prepared to address any flooding arising from a 1:100 year event and a Probable Maximum Flood (PMF) scenario. The location of the works are self-evidently suitably remote from any such risk. As seen in **Figure 11** of this REF, large areas of the hospital as being subject to a "low risk" designation of flooding from the north via Toongabbie Creek, however the CASB is not impacted.

Notwithstanding, it is relevant to note that the State Emergency Service of New South Wales (SES) is responsible for providing flood updates and issuing Flood Evacuation Warnings and Flood Evacuation Orders. Flood information issued by the SES may be received by local radio and television news, SMS messaging, Facebook, and doorknocking in effected communities. The timing for evacuation of persons is to be established in consultation with the SES. As the site appears to be located outside any PMF floodwater extents and the development will not impact the flood characteristics on site, an evacuation plan is not considered necessary for the proposed palliative care works. The existing evacuation plan should nonetheless be updated to ensure the new works and additional population of the hospital is catered for in such circumstances that evacuation may be required. This is included as a Mitigation Measure at **Appendix W**.

6.2.6 Visual Amenity

Questions to consider	Yes	No
Are the works visible from residential properties or other land uses that may be sensitive to visual impacts?	X Distant view only from the north and north-west over many hundreds of metres	
Will the works be visible from the public domain?		X Unlikely in proximity of the hospital
Are the works located in areas of high scenic value?		X
Will the works involve night work requiring lighting?		X

The proposed works effectively provide for alterations and additions to the existing 4th storey podium of a 13 to 14-storey building itself sitting within a cluster of development. Generally, the works would be barely discernible for areas outside of the hospital, and even from within most parts of the hospital.

The external built form and materiality has been designed to meet a functional need, whilst blending with the CASB's existing form, colours and articulation in order to be recessive and consistent in its expression. To this end it is considered to be sympathetic to the adjacent heritage items and other views into the hospital. It is unlikely that the

palliative and supportive care unit addition will present in a jarring manner to detract from the existing contemporary or heritage contexts. The proposal is a single-storey blended into an existing 13 to 14 storey form. Its visual impacts are likely to be diminutive rather than dominant. The new facility is not likely to be visible or discernible from a range of streetscapes with the existing built environment typified by a mix of building heights, clustering of development, and stark and bold forms. The new unit is unlikely to adversely contribute to visual impacts.

No mitigation measures are considered relevant or necessary in this regard.

6.2.7 Aboriginal Heritage

Questions to consider	Yes	No
Will the activity disturb the ground surface or any culturally modified trees?		X
Are there any known items of Aboriginal heritage located in the works area or in the vicinity of the works area (e.g. previous studies or reports from related projects)?		X
Are there any other sources of information that indicate Aboriginal objects are likely to be present in the area (e.g. previous studies or reports from related projects)?		X
Will the works occur in the location of one or more of these landscape features and is on land not previously disturbed?		X
<ul style="list-style-type: none"> • Within 200m of waters; • Located within a sand dune system; • Located on a ridge top, ridge line or headland; • Located within 200m below or above a cliff face; • Within 20m of, or in a cave, rock shelter or a cave mouth. 		
If Aboriginal objects or landscape features are present, can impacts be avoided?	X (elevated position of works)	N/A
If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?		N/A
Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?		X
Is the activity likely to affect the cultural value or significance of the site?		X

Given the elevated and isolated position of the works within the CASB and wider hospital campus, an Aboriginal Heritage Due Diligence assessment to assess the likelihood of Aboriginal heritage impacts has not been prepared. A basic AHIMS search is included at **Appendix P**. This basic AHIMS search indicates that no Aboriginal sites are recorded in or near the hospital campus in this location, and that no Aboriginal places have been declared in or near the hospital campus in this location.

Despite the lack of an assessment, it is clear that the proposed elevated location of the works will not harm, or have the likelihood of harming, Aboriginal objects. Accordingly, an Aboriginal Heritage Impact Permit (AHIP), will not be needed to support the works.

An Aboriginal Cultural Heritage Assessment Report (ACHAR) is also not required in the circumstances.

Based on the above, the following conclusion can be made, and appropriate standard Mitigation Measures be applied:

- The area of the works does not contain and is not likely to contain any Aboriginal objects. No further Aboriginal heritage assessment or investigation is required, and the proposed works can proceed with caution.
- If Aboriginal objects are discovered during the proposed works, works must stop immediately and an assessment must be undertaken in accordance with Part 6 of the *National Parks and Wildlife Act 1974*. If the activity cannot avoid harm to Aboriginal objects, works cannot proceed until an Aboriginal Heritage Impact Permit has been issued.

The Mitigation Measures include the typical and accepted Unexpected Finds Protocol – see **Appendix W**.

An ACHAR and an AHIP is not required based on the nature, location, and scope of the works.

6.2.8 Non-Aboriginal Heritage

Questions to consider	Yes	No
Are there any heritage items listed on the following registers within or in the vicinity of the work area? <ul style="list-style-type: none">NSW heritage database (includes Section 170 and local items);Commonwealth EPBC heritage list.	X World Heritage, National, State, Local within vicinity or general locality	X (s170)
Will works occur in areas that may have archaeological remains?		X
Is the demolition of any heritage occurring?		X

Artefact has prepared a Statement of Heritage Impact in relation to the project - see **Appendix Q**.

The site for the proposed palliative care unit is not subject to any State Heritage Register listings or S170 heritage register listings. There are however heritage items in the vicinity of 1,500m from the subject site. There is potential for visual impact of the proposal upon some of these items. **Figure 24** below shows the subject site and the 1,500m radius as taken from the Artefact report.

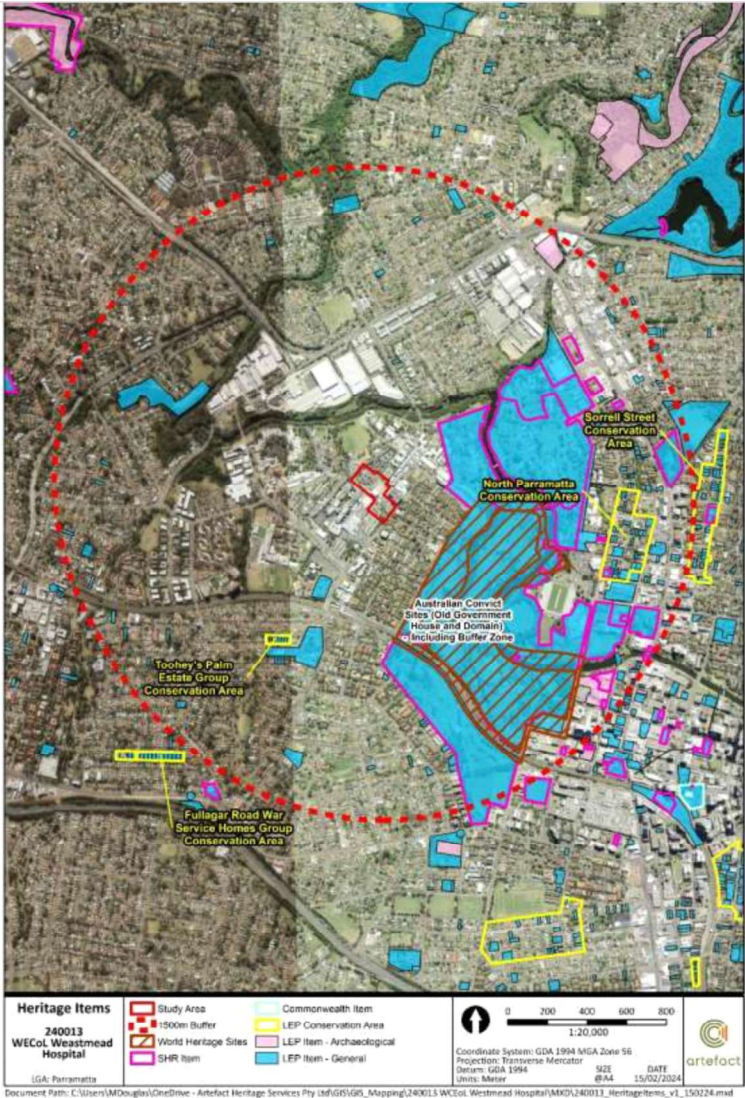


Figure 24 - Study area with 1,500m buffer zone including World Heritage Sites, SHR Items, LEP Conservation Areas, LEP items - Archaeological, and LEP items – General (Artefact)

Artefact has considered whether the works will have any direct physical or direct visual impacts on a range of items within the hospital's and site's radius. This has included World Heritage Sites, National Heritage sites, State Heritage Register items, LEP Conservation Areas, LEP items - Archaeological, and LEP items – General. As can be seen from the figure most items sit to the south, south-east, and east of the CASB and other buildings within the hospitals' cluster of taller buildings. The palliative and supportive care unit itself will be on the 'blindside' of many of these items and largely indiscernible from other development from those locations. This is particularly emphasised by the two newer taller hospital developments flanking the CASB of 13 and 10 storeys which have the potential to further encircle the subject site as shown earlier in **Figure 16**.

Notwithstanding, Artefact has concluded that no World Heritage (and National Heritage items) will be directly physically or directly visually impacted by the project. This includes the Australian Convict Sites: Old Government House and Domain; Parramatta Park Old Government House and the Government Domain; and Former Female Factory Parramatta. Similarly, no State Heritage Register items are directly physically or directly visually impacted by the project. The only item that has the potential to be impacted are minimal visual impacts upon the Western Sydney University site at Hawkesbury Road (noting however that that site itself and immediately to the west of it is subject to significant taller and denser development that will have a more direct and profound heritage item).

Artefact's conclusions and recommendations include:

- Consideration of the external built form to align with the context of existing building.
- Analysis of views to and from the heritage items in the vicinity.
- Selection of exterior materials such as roofing and cladding which are sympathetic to the heritage items in the vicinity.
- Consideration of landscape forms and planting around the new structure.
- Preparation of a Visual Impact Assessment, which takes into consideration key historic view corridors which have been identified in this Statement of Heritage Impact.

BVN has considered the above in the preparation of its Architectural Design Statement. The external built form and materiality has been designed to meet a functional need and blend with the CASB's existing form, colours and articulation in order to be recessive and consistent in its expression. To this end it is considered to be sympathetic to the adjacent heritage items in not presenting in a jarring manner to detract from the existing contemporary or heritage contexts. The proposal is a single-storey blended into an existing 13-14 storey form. Its visual impacts are likely to be diminutive rather than dominant. The new facility is not likely to be visible or discernible from a range of streetscapes with the existing built environment typified by a mix of building heights, clustering of development, and stark and bold forms. The new unit is unlikely to adversely contribute to visual impacts on key historic view corridors in that regard.

No further mitigation measures are considered necessary with respect to heritage items. Relevantly, given the proposal has no directly physical or directly visual impacts upon World Heritage and/or National Heritage items, no Controlled Activity arises under the EPBC Act and no referral is required to the Commonwealth.

6.2.9 Ecology

Questions to consider	Yes	No
Could the works affect any <i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth)</i> listed threatened species, ecological community or migratory species?		X
Is it likely that the activity will have a significant impact in accordance with the <i>Biodiversity Conservation Act 2016 (BC Act)</i> ? In order to determine if there is a significant impact, the REF report must address the relevant requirements of Section 7.2 of the BC Act: <ul style="list-style-type: none"> • Section 7.2(a) – Test for significant impact in accordance with Section 7.3 of the BC Act; • Section 7.2(c) – It is carried out in a declared area of outstanding biodiversity value. 		X
Could the works affect a National Park or reserve administered by EES?		X
Is there any important vegetation or habitat (i.e. Biodiversity and Conservation SEPP) within or adjacent to the work area?		X
Could the works impact on any aquatic flora or habitat (i.e. seagrasses, mangroves)?		X

Questions to consider	Yes	No
Are there any noxious or environmental weeds present within the work area?		X
Will clearing of native vegetation be required?		X

Given the elevated and isolated location of the works as a new Level 5 to the CASB podium no ecological advice has been sought with respect to the proposed works.

As noted earlier in this REF (see **Figure 6**) no part of the hospital campus is subject to mapped Biodiversity Values. Given the location, nature and scope of the works and lack of ecological communities present on the site, a Species Impact Statement (SIS) and/or a Biodiversity Assessment Development Report (BDAR) are each not relevant or required and are not likely to trigger to entry into the Biodiversity Offsets Scheme identified in section 7.4 of the *Biodiversity Conservation Act 2016*.

Further it is extremely unlikely that there will be any significant effect on any endangered ecological community, endangered population, threatened species or their habitats, as per the listings in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act 1999) (Commonwealth legislation). The provisions of the EPBC Act 1999 do not apply to this proposal and it does not require referral to the Commonwealth.

Other than protection of the existing planted native vegetation adjacent to the building (as far as this may be relevant to any as yet unknown construction methodology), no mitigation measures are considered relevant in this instance.

6.2.10 Bushfire

Questions to consider	Yes	No
Are the works located on bushfire prone land?		X
Do the works include bushfire hazard reduction work?		X
Is the work consistent with a bush fire risk management plan within the meaning of the <i>Rural Fires Act 1997</i> (RF Act) that applies to the area or locality in which the activity is proposed to be carried out?		N/A

As noted in **Figure 10** of this REF, the hospital is remote from any mapped bush fire prone land and accordingly no bush fire-related advice has been sought with respect to the proposed works. No bushfire-related mitigation measures are considered relevant in this instance. As with the unlikely instance of flooding at the site / unit, the existing hospital evacuation plan should nonetheless be updated to ensure the new works and additional population of the hospital is catered for in such circumstances that evacuation may be required. This is included as a Mitigation Measure at **Appendix W**.

6.2.11 Land Uses and Services

Questions to consider	Yes	No
Will the works result in a loss of or permanent disruption of an existing land use?		X
Will the works involve the installation of structures or services that may be perceived as objectionable or nuisance?		X
Will the works impact on or be in the vicinity of other services?		X

6.2.12 Waste Generation

Questions to consider	Yes	No
Will the works result in the generation of non-hazardous waste?	X	
Will the works result in the generation of hazardous waste?	X	
Will the works result in the generation of wastewater requiring off-site disposal?		X
Will the works require augmentation to existing operational waste management measures?		X

A preliminary Waste Management Plan has been prepared for the purposes of the REF – see **Appendix R**. The purpose of this report is to provide an estimate, and details, of waste generated throughout the construction and provide a preliminary description of measures to be implemented to handle waste during facility operation, noting

details of the amounts, handling methods and destinations of waste generated during construction will be provided by the construction contractor appointed to the project.

The project applies relevant State legislation and State and Local Government policies related to waste and its handling including reducing and avoiding waste, reducing waste to landfill, and diverting waste from landfill. This includes, where possible reuse and recycling or resources to avoid these being classified as waste materials.

The Waste Management Plan sets out anticipated waste streams, of which the vast majority are expected to be recycled. Only general waste and spoil has the potential to go to landfill under the plan.

Operational waste generated by the palliative care unit will apply the pre-existing hospital's general operational waste management plan(s). Further, the WSLHD has set waste reduction targets, which include:

- 10% reduction in landfill waste by 2025: This target focuses on decreasing the volume of waste sent to landfills by improving waste sorting, minimising waste generation, and increasing recycling efforts;
- 20% increase in recycling rates by 2025: WSLHD aims to improve recycling, especially in clinical settings, by implementing new programs that focus on materials like clinical plastics, metals, and paper;
- Diverting clinical waste: The district seeks to minimise the disposal of hazardous waste through innovative solutions like reusing and recycling clinical materials, such as plastics, which often end up incinerated or landfilled;
- Achieve 90% accuracy in waste segregation;
- Increase waste diversion from landfills; and
- Minimise the risk of clinical waste contamination in other waste stream.

This will be measured and monitored consistent with the plan.

See the Mitigation Measures arising from the assessment of this project at **Appendix W**.

6.2.13 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?		X In-ground and in building
Is there potential for the works to disturb or require removal of asbestos?		X
Is the work site located on land that is known to be or is potentially contaminated?		X
Will the works require a Hazardous Materials Assessment?		X
Is a Remediation Action Plan (RAP) required to establish the proposed activity?		X
If the project includes ancillary remediation works, has the ancillary remediation been considered in accordance with the Resilience and Hazards SEPP?		N/A

HAZMAT

No HAZMAT assessment has been carried out as the works are within a modern recently-completed building with the work proposed atop the existing roof of the Level 4 podium. The likelihood of encountering Asbestos, Lead-Based Paints, Synthetic Mineral Fibres (SMFs), Polychlorinated Biphenyls (PCBs) or Phenols is extremely low in the circumstances.

Notwithstanding, the standard unexpected finds protocol requirements are imposed as a mitigation measure to capture any unlikely eventuality of their discovery.

Contamination

Given the elevated location of the works within / atop an existing operational building at the site, and lack of any earthworks, no in-ground contamination assessment was commissioned. No change occurs to the land use at the site and existing information about the remediated conditions at the site would prevail.

The site will continue to remain suitable for the proposed development without the need for remediation, subject to the development and implementation of a suitable unexpected finds procedure during construction, as is standard, however unlikely the circumstances in this case.

The Mitigation Measures at **Appendix W** have adopted these recommendations.

6.2.14 Sustainability and Climate Resilience

Questions to consider	Yes	No
Does the activity ensure the effective and efficient use of resources (natural or other)?	X	
Does the activity use any sustainable design measures?	X	
Are climate resilient design measures to be incorporated in the activity?	X	

As noted in Section 3 of this REF, the project's design has incorporated sustainability principles consistent with the requirements of DGN 58 and HI's Sustainability Strategy. An ESD Report has been prepared to support the development – see **Appendix D**.

According to the principles outlined within the NSW HI Engineering Service Guidelines (DGN 058), the project is to demonstrate the following outcomes:

- A minimum of 60 points (+5 point buffer) to be achieved by the design in accordance with HI's ESD Evaluation Tool; and
- A mandatory requirement of demonstrating a 10% improvement in energy performance on NCC Section J.

The project will implement several sustainable design principles which include initiatives designed to mitigate the development's environmental impact across the following areas:

- The development is currently targeting 66 points in accordance with HI's ESD Evaluation Tool.
- The development will demonstrate a 10% improvement in energy performance on NCC Section J.
- Building Management – including reviews of commissioning and tuning, building information and other operational processes.
- Indoor Environment Quality – including high air quality, acoustic/lighting comfort and reduction of indoor pollutants.
- Energy & Carbon – including improved energy efficiency of the building operations through design and technology and consideration to Embodied Carbon.
- Water Efficiency – reduce potable water demand and utilising the use of rainwater.
- Materiality & Waste – Considering the whole of life of materials and their selection to minimise harm to the environment, including efficiency and construction while minimising resources sent to landfill from construction and demolition works.

Additionally, the EP&A Regulation lists four principles of ESD required to be considered in assessing a project:

- The Precautionary Principle
- Intergenerational equity
- Conservation of biological biodiversity and ecological integrity
- Improved valuation and pricing of environmental resources

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful consideration and evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This REF has not identified any serious threat or irreversible damage to the environment and therefore the precautionary principle is not relevant in this case.

Intergenerational equity is concerned with ensuring the health, diversity and productivity of the environment can be maintained or enhanced for the benefit of future generations. The proposal satisfies this by providing a means to providing enhanced and much needed health services for generations to come.

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration for any development. The proposal will have no detrimental effect upon this, given the general lack of biodiversity values present on the site and the internalised and elevated nature of the works themselves.

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources that may be affected by a proposal, including air, water, land and living things. Mitigation measures are included in this REF for avoiding waste and ensuring where possible reuse, recycling and managing waste occurs, as relevant to this relatively minor scope of works.

See the Mitigation Measures arising from the assessment of this project at **Appendix W**.

6.2.15 Community Impact/Social Impact

Questions to consider	Yes	No
Is the activity likely to affect community services or infrastructure?		X
Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?		X
Is the activity likely to affect economic factors, including employment numbers or industry value?		X
Is the activity likely to have an impact on the safety of the community?		X
Will the activity affect the visual or scenic landscape?		X
Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?		X Only modest construction impacts upon the immediate hospital environs.

Whilst a Social Impact Statement has not been prepared in support of this REF, the obvious and palpable social benefits arising from the proposed works are as expressed in the vision, objectives and scope of the project in supporting the Clinical Services Plan for the hospital, and WCEoL Program more generally.

There are not likely to be any adverse impacts of the works from a social impacts perspective given the general location of the works and its scale. The intensity of the overall use of the hospital use will largely be the same, albeit in contemporary accommodation as would be expected with Government investment in improved health services. Construction-related impacts are otherwise addressed elsewhere within this section of the REF.

The visual impacts of the redevelopment are as described above, and where discernible, are considered to the suitable in the context of the modest scope of works to provide appropriate accommodation and levels of care.

Notwithstanding, predicted social impacts of the works and operation of the palliative care unit, and relevant mitigation measures are generally considered below.

Social impacts may be classified as follows, based on the Department of Planning and Environment's 'Social Impact Assessment Guideline' (2021):

- **Way of life:** how people live, get around, work, play and interact with one another on a day-to-day basis
- **Community:** its composition, cohesion, character, how it functions, and sense of place
- **Accessibility:** how people access and use infrastructure, services and facilities
- **Culture:** people's shared beliefs, customs, values and stories, and connections to Country, land, water, places and buildings

- **Health and wellbeing:** people's physical, mental, social and spiritual wellbeing
- **Surroundings:** access to and use of natural and built environment, including ecosystem services, public safety and security, as well as aesthetic value and amenity
- **Livelihoods:** including impacts on employment or business, experience of personal breach or disadvantage, and the distributive equity of impacts and benefits
- **Decision-making systems:** the extent to which people are able to participate in decisions that affect their lives, procedural fairness, and the resources provided for this purpose.

Each of these is addressed in turn further below.

The **affected communities** with respect to social impacts are likely to be:

- Hospital communities (staff, volunteers, suppliers etc).
- Patients attending the health facilities within the hospital precinct, their carers and visitors.
- Neighbouring residents, including aged care living residents.
- Neighbouring businesses.
- Neighbouring preschool parents and students.
- Local area workers.
- Visitors to other institutions and businesses within walking distance of the area.

The **magnitude and likelihood of impacts** to arise are fundamental to determining individual and aggregated impacts over time. This includes impacts during construction and those arising from the operational phase of the development.

A Social Impacts significance matrix is applied to assist in determining impacts – see below as derived from the Department's guideline's Technical Supplement (Table 7).

		Magnitude level				
		1	2	3	4	5
Likelihood level		Minimal	Minor	Moderate	Major	Transformational
A	Almost certain	Low	Medium	High	Very High	Very High
B	Likely	Low	Medium	High	High	Very High
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Way of life: how people live, get around, work, play and interact with one another on a day-to-day basis

Construction

Disruptions to the way of life related to the construction works are likely to be focussed on amenity impacts, whether noise, air quality, accessibility and the like. The works are temporary and so the impacts themselves are not life-changing or transformational.

Impacts are almost certain in the context and are moderate in magnitude due to the short timeframes and the ability to mitigate and manage impacts. The adverse impacts may accordingly be considered **High**. The impacts are however extremely localised to within the hospital, noting no sensitive receivers are located in close proximity to the works or the hospital, with the CASB generally shielding sensitive receivers outside of the hospital from the work zone.

Operation

The impacts of the operation of the new palliative care unit upon the way of life are likely to be positive and profound based on the project's objectives and need. These impacts are likely to be long-standing commensurate with the future-proofing embedded within the hospital's CSP and the WCEoL Program.

Impacts are almost certain and moderate in nature given the relatively modest scale of the works. These positive impacts may accordingly be considered **High**.

Community: its composition, cohesion, character, how it functions, and sense of place

Construction

The impacts of construction upon 'community' can be considered unlikely and minor, given this a rating of **Low**. Construction works across 15 months of 2025-26 are unlikely to be adversely impactful in this regard. In fact there is the potential for the construction works to contribute localised and regional economic multipliers within this part of Sydney (and Westmead itself) within the services industries through additional construction workers in the area, and their day-to-day needs.

Operation

As above, once operational, the new palliative care unit's impacts are almost certain to be moderate in nature given the modest scale of the works. These positive impacts may accordingly be considered **High** in the context.

Accessibility: how people access and use infrastructure, services and facilities

Construction

During construction, accessibility (including parking) within the hospital is likely to be affected. Notwithstanding, this will be able to be managed within the site and at its interface with surrounding roads and other access points into the hospital. The impacts in this regard are likely but minor to moderate. The impacts upon accessibility during construction would be **Medium-High**.

Operation

Following construction, accessibility and car parking will be returned (after having been used as a potential construction compound).

The likelihood of improved accessibility within and to the hospital and its services is almost certain and of a moderate magnitude, making the project's impact upon accessibility positively **High**.

Culture: people's shared beliefs, customs, values and stories, and connections to Country, land, water, places and buildings

Construction

Generally, the project's construction will have no impact upon culture, other than the overall process of inclusion under the Connecting with Country Framework in the design and execution of the project. An Unexpected Finds Protocol will be in place for any cultural heritage finds (Aboriginal or otherwise), however unlikely the potential impacts.

The impacts of this may be considered possible with a magnitude of moderate, making this impact **Medium** in the context.

Operation

As above, the project's design has sought to employ and embody the Connecting with Country Framework. This will be ongoing into the detailed design and execution of the project. The design measures with respect to Connecting with Country will be available to the community at large. In this respect the operational impacts may be considered to be likely and moderate in nature, presenting as a positive impact rated as **High**.

Health and wellbeing: people's physical, mental, social and spiritual wellbeing

Construction

The construction impacts related to health and wellbeing are likely to mirror those of 'way of life', particularly in how the community may react to impacts from noise, dust, traffic and like during the works. To that end, impacts are almost certain in the context and are moderate in magnitude due to the short timeframes and ability to mitigate and manage impacts. The adverse impacts may accordingly be considered **High**.

Operation

Again, as per 'way of life', the impacts of the operation of the new palliative care unit upon the health and wellbeing of the community are likely to be positive and profound based on the project's objectives and need. These impacts are likely to be long-standing commensurate with the future-proofing embedded within the hospital's CSP and the WCEoL Program itself.

Impacts are almost certain and moderate in nature given the modest scale of the works. These positive impacts may accordingly be considered **High**.

Surroundings: access to and use of natural and built environment, including ecosystem services, public safety and security, as well as aesthetic value and amenity

Construction

The construction of the project involves no removal of trees. The project has been able to be delivered without any new impacts upon biodiversity. Construction will temporarily change the face of the hospital at this interface. The impacts are almost certain but minor in relative magnitude, leading to a **Low** impact.

Operation

Once operational, improved safety and security and legibility and ownership arises within this part of the campus along with concurrent improvements to aesthetics and amenity. Impacts in relation to the operation of the development and its surroundings is almost certain with a major magnitude over time. Accordingly, a positive impact of **Very High** is likely to arise.

Livelihoods: including impacts on employment or business, experience of personal breach or disadvantage, and the distributive equity of impacts and benefits

Construction

It is unlikely adjacent businesses will be significantly adversely affected by the works. In fact, nearby cafés, allied health functions (and other similar businesses within the area) may benefit from additional patronage and income for the duration of the works due to additional construction workers from outside of the area, and potentially beyond in a modest way.

Accordingly, the positive economic multipliers are possible or likely to arise and have a moderate magnitude, realising a positively **Medium to High** social impact.

Operation

Once construction is complete, the growth in palliative care beds (and modest growth in beds more generally within the hospital) and staff will likely mean a net neutral social impact from livelihoods perspective. Accordingly, it is unlikely any significant adverse or positive impacts arise and the magnitude is minimal. The social impact arising may be considered to be **Low**.

Decision-making systems: the extent to which people are able to participate in decisions that affect their lives, procedural fairness, and the resources provided for this purpose.

Construction / Operation

Decision-making around the project need, its design, and in part its execution has involved primarily internal and some external stakeholders to the hospital (see the Communications and Engagement Report for the breadth of this

including Connecting with Country actions). This engagement has resulted in a development meeting a range of community expectations.

Statutory engagement in the decision-making process of this REF has sought wider neighbour inputs, generally from those perceived to be directly impacted by aspects of the construction and the operation. One submission was received from a residential community member keen to ensure construction noise would be limited and managed and that direct traffic impacts upon Hawkesbury Road would not be increased. The response issued by HI assured that these impacts would be standard in terms of noise and of no additional impact with respect to traffic. Council, as a general custodian on behalf of the wider community, did not make a submission.

In this sense the inclusivity of the decision-making process has been 'major' and with an 'almost certain' likelihood, to generate a positive social impact of **Very High**.

Summary

In summary, construction activities are more likely to have adverse social impacts than operational impacts. These impacts range from low to high, dependent upon the type of impact. These are temporary in nature and are generally manageable and can be classed as expected outcomes from the construction process. The greatest likely impacts will be from noise and air quality (dust / odour), however mitigation measures embedded within supporting reports under the REF, and as replicated in **Appendix W**, seek to reduce those impacts to appropriate levels.

Operational impacts conversely (due to the obvious positive nature of the project compared to the 'Do-Nothing' option), are more likely to arise in positive social impacts. These are likely to be longer-term, profound, and to a minor degree transformative to limited sections of the community. To the wider community they are collectively a range of positive impacts of varying degrees, that above all improve the community's health and wellbeing, way of life, and livelihoods. The works also have the positive impact of improvement to Westmead Hospital through investment in improved facilities.

To seek to avoid the manageable temporary construction impacts would be to forego the opportunity to provide myriad positive social impacts arising from the operational development.

See **Appendix W** for the suite of mitigation measures to address, principally, construction-related impacts.

6.2.16 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?	X Within the hospitals precinct itself	
Is there any transformation planned within 500m of the site?		X (other than planned and ongoing growth within Westmead Hospital and the adjacent The Childrens' Hospital Westmead)
Will there be significant impacts (for example, including but not limited to, construction traffic impacts) from other development approved or currently under construction within 500m of the site?		X (these are existing ongoing works being managed through their approvals)

Is the activity likely to result in further significant impacts together with other development planned, approved or under construction within 500m of the site?

X
(the relative scale of these works compared to other ongoing works is modest and of a lesser impact)

Has a cumulative impact statement, proportionate to the activity, been included in REF documentation? If no – why not?

N/A
See below

To address any possible cumulative impacts arising from the subject works being carried out concurrently with other construction works, a review has been undertaken of recent or well-progressed DAs using each of the following:

- Department of Planning and Environment – major project register;
- Sydney and Regional Planning Panels Development and Planning Register;
- Relevant LGA Council development application (DA) register; and
- Relevant LGA Council Land Use Planning Frameworks.

As set out in Section 2.3 of this REF, a review of the various development application portals reveals the following projects of significant size or value in, or in proximity of, Westmead Hospital:

Project name	Description	Location	Status
CMRI Gene Technologies Building	Redevelopment of the Children's Medical Research Institute, including: demolition works, tree removal, construction of 8 storey and 10 storey buildings including basement, pedestrian links, car parking, vehicle access, earthworks and landscaping.	214 Hawkesbury Road, Westmead	SSD-45576956 SEARs Issued in March 2024 and EIS under preparation.
Westmead iQ3 - BTR	Construction and operation of a 15 storey build-to rent shop top housing development, comprising amongst other things 244 build-to-rent residential dwellings.	1 Farmhouse Road, Westmead	SSD-65614712 Under Assessment
The Children's Hospital at Westmead - Paediatric Services Building	Construction and operation of a 14 level Paediatric Services Building	The Children's Hospital at Westmead, corner of Hawkesbury Road and Hainsworth Street	SSD-10349252 Under construction
Westmead Integrated Mental Health Complex	Construction and operation of a new 10 storey Integrated Mental Health Complex at Westmead Hospital, including demolition, remediation, earthworks, tree removal, landscaping, services, access arrangements (including link bridge to ASB) and signage.	Westmead Hospital	SSD-44034342 Under construction

As noted the Parramatta Light Rail project is also nearing completion with operation anticipated later in 2024.

The most relevant concurrent projects with levels of construction overlap in direct proximity of the Westmead WCEoL project are likely to be:

- The Children's Hospital at Westmead - Paediatric Services Building.
- Westmead Integrated Mental Health Complex.

The likely cumulative construction impacts of the subject project with the abovementioned projects is considered to be manageable and at appropriate levels. This is because of the extensive and stringent environmental management regimes in place for those works and the relatively modest scale and less impactful nature of the additions to the CASB podium rooftop by comparison. The Children's Hospital at Westmead - Paediatric Services Building is nearing completion of its substantive works with the fit out phase to follow. The Westmead Integrated Mental Health Complex has just commenced and so the construction overlap is generally likely to be across this project within 2025-26.

BCA and Structural-related considerations

BM+G has undertaken a BCA assessment of the project. The aim of its report is to:

- Undertake an assessment of the proposed Schematic Architectural Documentation for the REF Submission development against the deemed-to-satisfy provisions of the BCA.
- Identify matters that require plan amendments in order to achieve compliance with the BCA.
- Identify matters that are to be required to be addressed by Performance Solutions.
- Enable the Public Authority to satisfy its statutory obligations under Section 6.28 of the *Environmental Planning and Assessment Act, 1979*.
- Identify matters relating to the existing building that are required to be addressed as an upgrade strategy to accommodate the new works and / or to deal with significant fire safety issues within the building.

At present a range of matters need further clarification, however, broadly, compliance will be sought to be achieved as the Schematic Design progresses through Detailed Design.

TTW has provided a Structural Design Statement to assess the impact of the increased building loading onto the existing CASB structure.

TTW advises that the construction of a new lightweight single storey Palliative and Supportive Care Unit (SPCU) on Level 05 of the existing CASB) consists of a post-tensioned banded slab and has been designed as a future construction deck with a Live Load allowance of 10.0kPa. This is sufficient to support the weight of the proposed new building.

The BCA and Access assessment is found at **Appendix S**, whilst a Structural Adequacy Certificate is found at **Appendix T**.

Aviation and wind-related considerations

AviPro has considered the impacts of the development of an additional level atop the CASB podium upon the existing Westmead helipad / helicopter land site (HLS) on the same building. AviPro advises that *there are no significant areas of concern with developing the proposed Westmead Palliative Care Unit in its intended location, given the position and operations of the Westmead CASB HLS*.

Similarly, from a wind impacts perspective upon pedestrian amenity and comfort at the ground levels surrounding the CASB, CPP Wind Engineering Consultants have advised *the wind environment around the development is likely to be generally suitable for Pedestrian Standing to Walking style activities from a comfort perspective with reference to the Lawson criteria. No major adverse impacts to pedestrian comfort or amenity are foreseen as a result of the proposed development. All areas in the public domain in the vicinity of the subject site are expected to satisfy the relevant wind safety criterion*.

The AviPro advice is provided at **Appendix U**, whilst the CPP Wind Engineering Consultants advice is provided as **Appendix V**.

7. Summary of Mitigation Measures

Mitigation measures are to be implemented for the proposal to reduce impacts on the environment. The mitigation measures are provided at **Appendix W**.

7.1 Summary of Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are considered to be low to moderate, and will not have significant adverse effects on the locality, community and the environment;
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community; and
- Given the above, it is determined that an EIS is not required for the proposed development activity.

8. Justification and Conclusion

The proposed alterations and additions to the existing Level 4 plantroom's rooftop on the Central Acute Services Building (CASB) at Westmead Hospital to accommodate the new 15-bed palliative and supportive care unit as part of the World Class End of Life (WCEoL) Project is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement (SIS) and/or a Biodiversity Development Assessment Report (BDAR) to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning and Public Spaces under Part 5 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.