HEALTH INFRASTRUCTURE

Review of Environmental Factors

Cessnock Hospital Redevelopment

Version Number 05

NSW GOVERNMENT

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 the proposed redevelopment of Cessnock Hospital at 24 View Street, Cessnock.

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) and *Consideration of environmental factors for health services facilities and schools, dated October 2024*, 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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Contents

Tables

Figures

Appendices

Appendix	Description	Author	Rev/Ref/Date
A	Section 10.7(2) Planning Certificate	Cessnock City Council	10 May 2023
B	Summary of Mitigation Measures	Ethos Urban	-
C	Architectural Plans	Fitzpatrick & Partners	

D	Architectural Design Report	Fitzpatrick & Partners
E	Site Survey	De Witt Consulting
F	AHIMS Search	AHIMS Web Services (AWS)
G	Aboriginal Cultural Heritage Assessment Report	Biosis
H	Statement of Heritage Impact	Umwelt
I	Ecologically Sustainable Development Report	Lucid Consulting
J	Arboricultural Impact Assessment and Tree Protection Management Plan	Active Green Services
K	Biodiversity Development Assessment Report	Narla Environmental
L	Landscaping Plans	Clouston Associates
M	Landscape Design Report	Clouston Associates
N	Civil Engineering Plans	Enstruct
O	Civil Design Report	Enstruct
P	Civil Earthworks Statement	Enstruct
Q	Pre-Demolition Hazardous Materials Survey Report Summary	Tetra Tech Coffey
R	Electrical Services Design Statement	JHA Consulting
S	Hydraulic Services Design Statement	JHA Consulting
T	Traffic and Parking Impact Assessment	Stantec
U	Aviation Impact Assessment	AviPro
V	Noise and Vibration Impact Assessment	JHA Consulting
W	Geotechnical Report	JK Geotechnics
X	Erosion and Sediment Control Plan	Enstruct
Y	Operational Waste Management Plan	Turner Townsend
Z	Construction Waste Management Plan	Turner &Townsend
AA	BCA Report	MBC Group
BB	Access Report	MBC Group
CC	Engagement Outcomes Report	Health Infrastructure
DD	Social Impact Assessment	Ethos Urban
EE	Preliminary Site Investigation	Tetra Tech Coffey
FF	Detailed Site Investigation	Tetra Tech Coffey
GG	Remediation Action Plan	Tetra Tech Coffey
HH	Preliminary Construction Management Plan	Turner &Townsend
II	Flood Impact Assessment	Enstruct
JJ	Archaeological Report	Biosis
KK	Response to Submissions	Ethos Urban
LL	Notification Letters	HINSW

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	*Biodiversity Conservation Act 2016*
BC Act 2017	*Biodiversity Conservation Act 2017*
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	*Coastal Management Act 2016*
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	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection License
FM Act	*Fisheries Management Act 1994*
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	Health Infrastructure
LEP	Local Environmental Plan
LGA	Local Government Area
MPS	Multipurpose Service

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

Executive Summary

The Proposal

This Review of Environmental Factors (**REF**) relates to the construction and operation of a new clinical services building within the Cessnock Hospital campus. The Proposal includes:

- Site establishment and preparation including demolition, earthworks, removal of any hardstand areas, as well as tree removal;
- Realignment of internal roads, visitor and drop off parking, emergency services road, as well as resurfacing of the existing car park in the western portion of the site;
- Delivery of a new primary vehicular and pedestrian entrance to the hospital campus from Jurd Street, as well as resurfacing, guttering and kerbing works along Jurd Street adjacent to the Hospital;
- Construction and operation of a new 2-storey clinical services building in the northern portion of the site, including:
  - Emergency Department (ED);
  - Medical Imaging;
  - Perioperative Suite;
  - Sterilising Services Unit (SSU);
  - 2 x Inpatient Units (IPUs);
  - Pharmacy;
  - Mortuary; and
  - Front of House (FOH) services.
- Associated landscaping works including tree replacement planting (resulting in a total of 207 trees), new paving, and retaining walls.
- Installation and realignment of selected services, including water, sewerage and electricity.
- Installation of ancillary development including, but not limited to, lighting as well as signage.

Need for the Proposal

Cessnock Hospital is a district hospital that provides specialist services such as general medicine and surgery, transitional aged care, emergency department and allied health services within the Hunter New England Local Health District (HNELHD). Existing buildings are noted to be ageing and have a number of functional and structural problems that need to be addressed. Additionally, the population of Cessnock is predicted to grow, particularly the ageing population which requires more specialised healthcare services.

In response to the above challenges, the redevelopment of Cessnock Hospital Health Service was identified in the Hunter New England Health Strategic Plan 2021 to 2025 as a strategic action to plan and invest in infrastructure and facilities. This has been established as a key priority to construct new or upgrade facilities to address the increasing demand and ageing infrastructure.

In November 2021, the NSW Government announced to redevelop the Cessnock Hospital to provide new purpose-built facilities to meet the current and future population demand within the local health district. In light of this, the Proposal for a new clinical services building was procured by Health Infrastructure NSW to deliver much needed additional and upgraded facilities on the site to ensure the surrounding community has adequate access to health care services.

Proposal Objectives

The Proposal's primary aim is to deliver much needed upgraded health facilities that will meet the current and future demand for such services in Cessnock and the broader Hunter Valley region. The Proposal is guided by the following objectives:

- Develop services around patients, carers and staff needs, with fit for purpose infrastructure to enable new models of care.
- Meet current and future growth of clinical health services across the HNELHD.
- Support access to health services for patients, carers and staff enabled by service integration to one site.
- Minimise disruption and maintain operational continuity for the Cessnock Hospital.
- Aboriginal health outcomes by designing a facility which meets the needs of local Aboriginal communities using Connecting with Country initiatives.
- Staff satisfaction in an environment that is supportive and stimulating.
- Ecologically sustainable design outcomes by enabling improvements in energy efficiency to reduce emissions and contribute to net carbon zero.
- Ensure all environmental impacts are appropriately avoided, minimised or offset by way of the project design or by suitable implementation of the mitigation measures (**Appendix B**).

Options Considered

The master planning process evolved with consideration to three (3) options:

- **Option 1 –** Do Nothing
- **Option 2 –** Alternative Designs and Location
- **Option 3 –** The Proposal

Option 3 was identified as the preferred option for the following reasons:

- The built form has been informed by a considered analysis of the site and its surrounding context, amenity considerations, as well as ensuring minimal impacts to current Hospital operations during construction, and equally, ensuring maximum integration with the existing Hospital during operation.
- The Proposal will support the strategic need of the Region for contemporary models of care for clinical health services in NSW. Accordingly, this approach represents the optimal and preferred option for this site.

Site Details

Cessnock Hospital is located at 24 View Street, Cessnock, in the Cessnock City Council Local Government Area (LGA). The land to which this REF relates is generally located in the northern and western portions of Cessnock Hospital. Currently, the southern portion of the site is occupied by the existing main building of the hospital and other ancillary buildings. The western portion of the site is predominantly used for carparking, and the northern portion of the site is currently devoid of any key development, comprising a decommissioned helipad surrounded by grassed lawns only.

The site lies within the Lower Hunter Region, which is a region comprising the Cessnock, Maitland, Lake Macquarie, Newcastle and Port Stephens LGAs. The site lies approximately 1km northwest from the centre of Cessnock, and is approximately 2 hours north of Sydney.

Figure 1 provides a contextual map of the site and its surrounds.

Figure 1 Site Context Map

Source: Nearmap, edits by Ethos Urban

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 activity 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.

As the proposed construction of the new health services facility is within the boundaries of the existing Cessnock Hospital, which is defined as a 'health services facility', to be undertaken by HI, the 'development permitted without consent' provisions under Section 2.61 of the TISEPP apply.

Under Part 5 of the EP&A Act, the proposal is defined as an 'activity' and is therefore subject to an environmental assessment (Review of Environmental Factors) as presented in this report.

Consultation and Engagement

In accordance with the identified sections of the TI SEPP, the REF has been notified to the following parties:

- Cessnock City Council under Section 2.62(2)(a)(i) and Section 2.10(1)(a), (c), (d) and (f)
- The occupiers of any adjoining land under Section 2.62(2)(a)(ii)

Consultation was undertaken having regard to the SCPP—new health services facilities and schools and the community participation plan. This included:

- sending notices to adjoining neighbours, owners and occupiers inviting comments within 28 days
- sending notices to the local council and relevant state and commonwealth government agencies and service providers inviting comments within 21 days
- making the REF publicly available on the Planning Portal throughout the consultation period.

The notification commenced on 20th January 2025 and concluded on 17th February 2025. Copies of these notification letters are included at **Appendix LL**.

In addition to the above statutory consultation requirements, the project team has undertaken other extensive community consultation activities throughout the project to date, which has helped form the current design. This has included multiple community consultation sessions and information distribution via various channels and mediums, multiple staff consultation sessions and updates, Walk on Country and multiple meetings with the Connecting with Country Working Group.

A summary of non-statutory engagement carried out by Health Infrastructure is provided at **Appendix CC.**

Environmental Impacts

This REF considers the requirements of Part 5 of the EP&A Act, as well as clause 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulations). **Section 6** outlines the potential impacts of the works on the environment, including traffic, heritage, contamination, ecology and visual impacts.

The environmental impacts from the proposed activity are considered to be minimal, especially taking into account the significant public and community benefits that the future clinical services building would provide to the Cessnock region and beyond. Mitigation measures, included in **Appendix B**, outline the undertakings to manage and minimise potential impacts arising from the activity.

Justification and Conclusion

This REF describes the proposed works and has examined to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity. Potential impacts can be reasonably mitigated, and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

The proposed activity can be justified as it is consistent with the wider strategic priorities for Cessnock Hospital and will facilitate the construction of the health facility that will provide contemporary, integrated models of health care to support and improve the health of residents in Cessnock and its surrounding districts.

1. Introduction

NSW Health Infrastructure (HI) propose to construct a new clinical services building at the Cessnock Hospital Health Service (the Proposal), which is located at 24 View Steet, Cessnock (the site). The Proposal forms part of the delivery of infrastructure solutions and services to support the healthcare needs of NSW communities, specifically in this case, the Hunter New England Region. The Proposal comprises the following activities:

- Site establishment and preparation including demolition, earthworks, removal of any hardstand areas, as well as tree removal;
- Realignment of internal roads, visitor and drop off parking, emergency services road, as well as resurfacing of the existing car park in the western portion of the site;
- Delivery of a new primary vehicular and pedestrian entrance to the hospital campus from Jurd Street, as well as resurfacing, guttering and kerbing works along Jurd Street adjacent to the Hospital;
- Construction and operation of a new 2-storey clinical services building in the northern portion of the site, including:
  - Emergency Department (ED);
  - Medical Imaging;
  - Perioperative Suite;
  - Sterilising Services Unit (SSU);
  - 2 x Inpatient Units (IPUs);
  - Pharmacy;
  - Mortuary; and
  - Front of House (FOH) services.
- Associated landscaping works including tree replacement planting (resulting in a total of 207 trees), new paving, and retaining walls.
- Installation and realignment of selected services, including water, sewerage and electricity.
- Installation of ancillary development including, but not limited to, lighting as well as signage.

This Review of Environmental Factors (REF) has been prepared by Ethos Urban on behalf of HI to determine the environmental impacts of the Proposal at the site. 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* (EP&A Regulations), and the then named Department of Planning & Environment (DPE) (now Department of Planning, Housing and Infrastructure (DPHI)) *Guidelines for Division 5.1 Assessments* (June 2022) and *Consideration of environmental factors for health services facilities and schools, dated October 2024*.

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 Homes 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 Objectives

The Cessnock Hospital Health Service is a district hospital that provides specialist services such as general medicine and surgery, , transitional aged care, emergency department and allied health services within the HNELHD. Existing buildings are ageing and have functional and structural problems that need to be addressed. Additionally Cessnock population is predicted to grow in population, particularly their ageing population.

In response to the above challenges, the redevelopment of Cessnock Hospital was identified in Hunter New England Health Strategic Plan 2021 to 2025 as a strategic action to plan and invest in infrastructure and facilities. This has been established as a key priority to construct new or upgrade facilities to address the increasing demand and ageing infrastructure.

In November 2021, the NSW Government announced to redevelop the Cessnock Hospital to provide new purpose-built facilities to meet the current and future population demand within the local health district. In light of this, the Proposal for a new clinical services building was procured by Health Infrastructure NSW to deliver much needed additional and upgraded facilities on the site to ensure the surrounding community has adequate access to health care services.

In light of the above, the Proposal's primary aim is to deliver much needed upgraded health facilities that will meet the current and future demand for such services in Cessnock and the broader Hunter Valley region. The Proposal is guided by the following objectives:

- Develop services around patients, carers and staff needs, with fit for purpose infrastructure to enable new models of care.
- Meet current and future growth of clinical health services across the HNELHD.
- Support access to health services for patients, carers and staff enabled by service integration to one site.
- Minimise disruption and maintain operational continuity for the Cessnock Hospital.
- Aboriginal health outcomes by designing a facility which meets the needs of local Aboriginal communities using Connecting with Country initiatives.
- Staff satisfaction in an environment that is supportive and stimulating.
- Ecologically sustainable design outcomes by enabling improvements in energy efficiency to reduce emissions and contribute to net carbon zero.
- Ensure all environmental impacts are appropriately avoided, minimised or offset by way of the project design or by suitable implementation of the mitigation measures (**Appendix B**).

1.2 Analysis of Alternatives

A number of alternative options were explored on the site for the development of the new clinical services building, which evolved through an assessment of the key physical parameters of the site and in response to the strategic need and objectives for the project, including the following considerations:

- Site size and built form capacity;
- Site conditions, slope and earthworks;

- Pedestrian and vehicular access pathways;
- Neighbouring and surrounding development context; and
- Project cost allocation.

As a result, three (3) preliminary alternative options were considered through the design development process, including not undertaking any works on the site, proceeding with alternative locations on site, providing an alternative design approach, and advancing the proposed clinical services building as detailed in this REF.

Option 1 – Do Nothing

Under the 'Do Nothing' scenario, the site would continue to remain underutilised and unmanaged. This option would represent a missed opportunity to meet the existing and future needs of the Region, as it fails to provide much needed, contemporary clinical services to support consumers, carers and staff.

On this basis, the 'Do Nothing' scenario is not considered to provide a desirable or acceptable outcome.

Option 2 – Alternative Designs and Location

In establishing the preferred location and design of the clinical services building within the site, an extensive process of optioneering and analysis was undertaken during the initial planning phases to ascertain the most optimal location and configuration of the new clinical services building. The locations explored were assessed against key parameters including the site's heritage context, vehicular/pedestrian access and connectivity, integration with the existing Hospital services, as well as minimising environmental impacts. This is shown below in **Figure 2.**

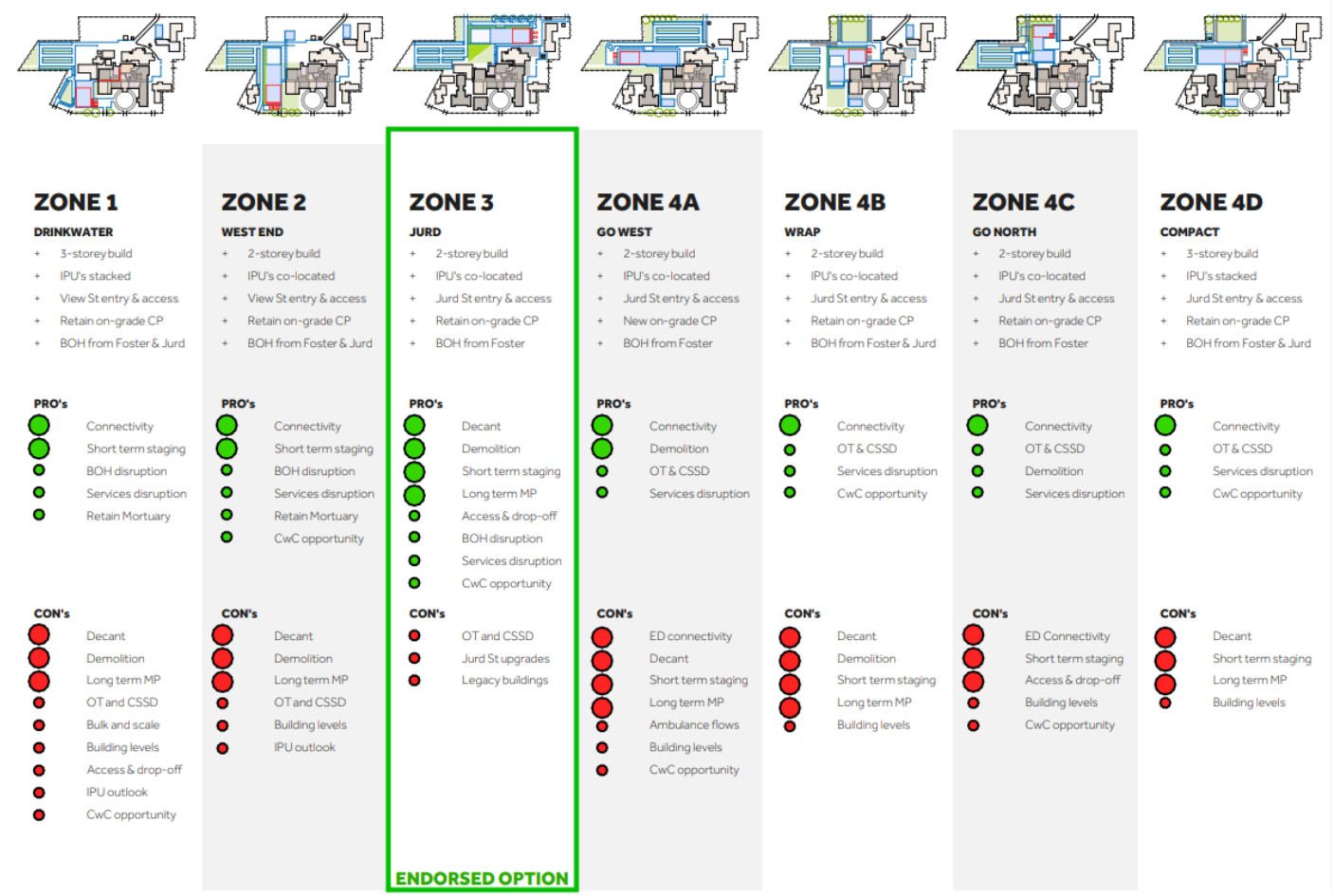


Figure 2 Alternative designs explored

Source: Fitzpatrick and Partners

As such, the location at which the building is sited under this REF is deemed the most logical location on site, while providing a comprehensive and integrated health campus.

Option 3 – The Proposal

Following consideration of the alternatives described, the proposed location and design was determined to be the most successful in facilitating the optimal built form and amenity outcome for the site and the project needs. The built form has been informed by a considered analysis of the site and its surrounding context, amenity considerations, as well as ensuring minimal impacts to current Hospital operations during construction, and equally, ensuring maximum integration with the existing Hospital during operation.

Importantly, the Proposal will support the strategic need of the Region for contemporary models of care for clinical health services in NSW. Accordingly, 'Option 3 – This Proposal' approach represents the optimal and preferred option for this site.

2. Site Analysis and Description

2.1 Site Location

Cessnock Hospital is located at 24 View Street, Cessnock, in the Cessnock City Council Local Government Area (LGA). The site lies within the Lower Hunter Region, which is a region comprising the Cessnock, Maitland, Lake Macquarie, Newcastle and Port Stephens LGAs. The site lies approximately 1km northwest from the centre of Cessnock and is approximately 2 hours drive north of Sydney.

The site is surrounded by the natural landscape of Mount View and Werakata National Park and enjoys two distinctive local characters; one that is influenced by the surrounding country and wine region and the other that is influenced by the historic town centre.

The regional context of Cessnock Hospital is shown below in **Figure 3**.

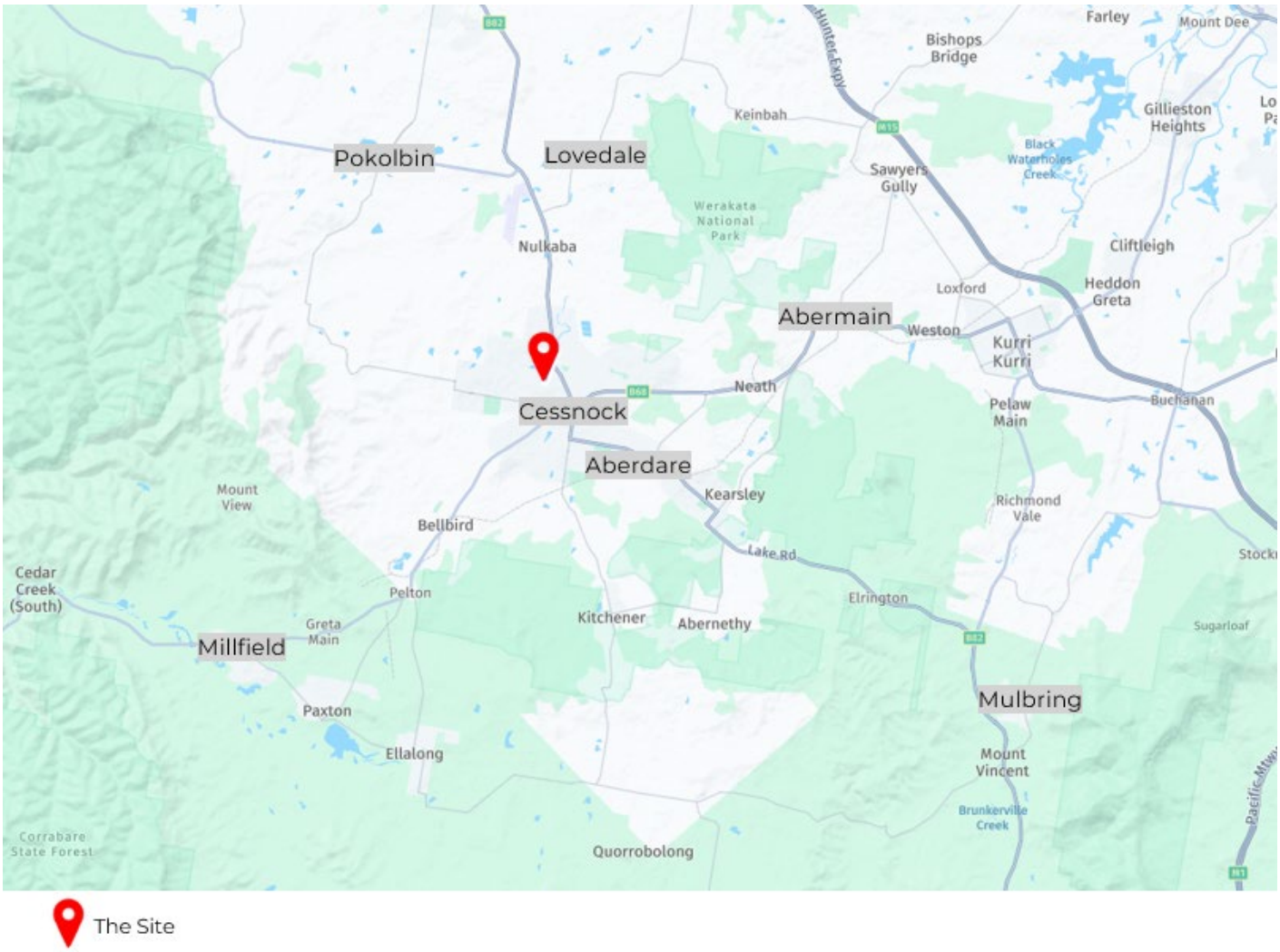


Figure 3 Regional Site Context

Source: Nearmap, edits by Ethos Urban

2.2 Site Description

Cessnock Hospital is the primary provider of hospital services to Cessnock and the surrounding communities. The site covers approximately 4.2ha and comprises of 9 lots, legally described as:

- Lot 2 DP1173784
- Lot 7 DP13203
- Lot 8 DP13203
- Lot 1 DP103663
- Lot 10 DP5442
- Lot B DP103664
- Lot 2 Section 20 DP5442
- Lot 1 DP254743
- Lot 11 DP882585

The site is bound by Jurd Street to the North and View Street to the South and can also be accessed via Foster Street to the east. The site is generally adjoined by low-density residential dwellings at the eastern and western boundaries.

An aerial image of the site is shown below in **Figure 4**.

Figure 4 Aerial view of the site

Source: Maphub, edits by Ethos Urban

2.2.1 Existing Development

The Cessnock Hospital site contains a range of healthcare facilities that provide inpatient, outpatient and community clinical services, as well as ancillary structures.

An existing development map of the site is provided at **Figure 5.** The land to which this REF relates is generally located in the northern and western portions of Cessnock Hospital. Currently, the southern portion of the site is occupied by the existing main building of the hospital and other ancillary buildings. The western portion of the site is predominantly used for carparking, and the northern portion of the site is currently devoid of any key development, comprising a decommissioned helipad surrounded by grassed lawns only.

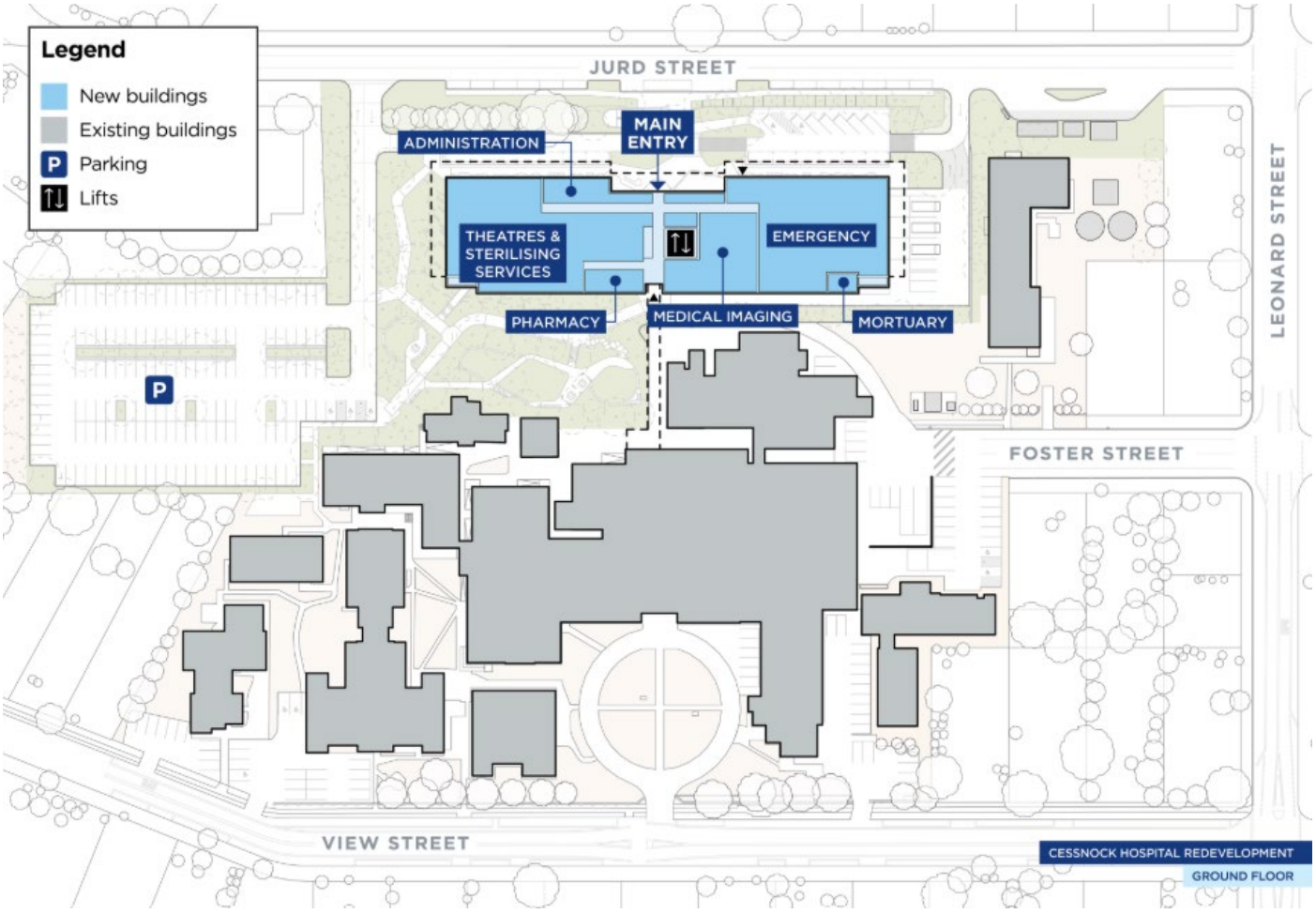


Figure 5 Existing Development Map (Shaded in Grey)

Source: Health Infrastructure NSW

2.2.2 Other Site Elements

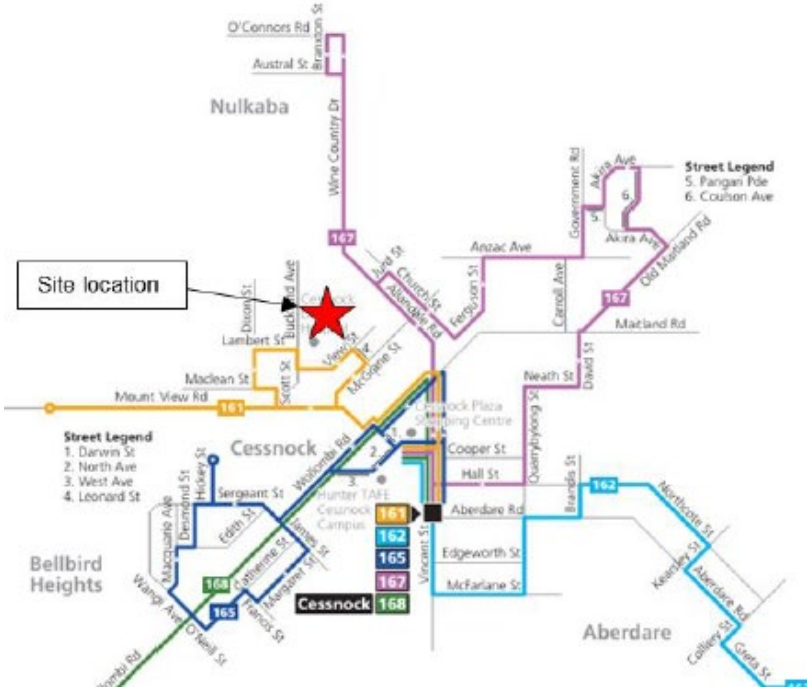
Key site characteristics are described below in **Table 1**.

Table 1: Other Site Elements

Other site elements	Details
Access, Connectivity and Parking	**Vehicular Access and Internal Circulation** The road network surrounding the hospital is comprised of local roads with relatively low traffic volumes throughout the day. Main vehicular access to the Hospital is via View Street and Foster Street. Back of house entry to the site is available via Jurd Street and two key drop off zones are located at ED and the main hospital entry at View Street.

Public Transport

Public transport servicing the site is quite limited, with the 161 bus route the only service providing direct connection to the hospital bus stop on View Street. The 161 is a loop service that runs from Cessnock to Hospital Hill and Vineyard Grove, with only four services throughout the day.

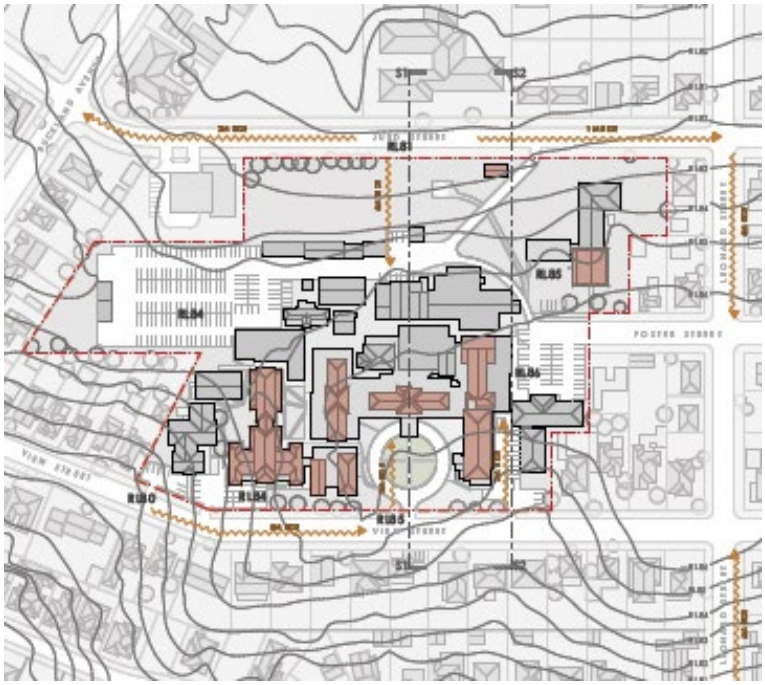


Parking

Parking is provided on site for staff and visitors, with additional parking available in the surrounding local road network. Existing carparks onsite are shown in the below image.

Topography

The hospital sits close to the crest of the surrounding hillock. The emergency entry and carpark are located on the higher aspect of the campus. The maximum hospital ground level is around RL85.80m and falls towards Jurd and View Streets which are lower by approximately 5m and 3m respectively. The main carpark in the west sits about 2m lower than the emergency department.



Heritage

Cessnock Hospital contains development from circa 1914 onwards when the hospital was originally built. Heritage buildings on site include the Original Hospital Building built in 1914, the Drinkwater Building, community health building, the mortuary, the maternity and a range of sheds at the site. In light of this, Cessnock Hospital is listed as an item of local heritage significance under the *Cessnock Local Environmental Plan 2011* (Cessnock LEP).

Other heritage listed items in the vicinity of the subject site are visually and physically separated from the site by intervening development and local topography. This includes the former Glenmore Private Hospital that is heritage item I57 at 41 McGrane Street. This single-story building (now a dwelling) is out of sight from Cessnock Hospital.

Biodiversity

The majority of the site is currently occupied by historically cleared exotic, grassland vegetation as well as areas of hardstand and existing structures. Only a small area was found to contain native tree species above a disturbed and managed understory.

The vegetation within this zone was in low condition. The canopy largely consists of *Syncarpia glomulifera* as well as likely planted native species *Eucalyptus botryoides* and *Lophostemon confertus*. There was no shrub layer present and the ground layer was regularly managed as a lawn consisting of species such as *Cynodon dactylon, Cenchrus clandestinus, Hypochaeris radicata, Plantago lanceolata* and *Senecio madagascariensis*.

Contamination

The PSI and DSI appended to the REF identified several potential areas of environmental concern (AECs) and associated primary contaminants of potential concern (COPC). These areas were further investigated via soil

sampling across a number of sample locations and assessed against human health and ecological thresholds. The soil samples produced the following key results:

- There was no indication of significant contamination of soil from potential oils spills within the yard maintenance shed from concentrations in boreholes in the vicinity.
- Reported concentrations of TRHs were relatively low and BTEX was below LOR. Similarly, in the vicinity of the fuel AST, which appeared no longer to be in use.
- Elevated Zinc exceeding site-specific EIL criteria were isolated and associated with fill containing waste materials. The calculated 95% UCL average for zinc across the site was below assessment criteria.
- Concentrations of TRH exceeding the ESL assessment criteria were reported in two (2) borehole samples above criteria, with QC1A >250% of criteria. TRHs and benzo(a)pyrene were also reported in the deeper samples, though were at lower concentrations below assessment criteria.
- Groundwater was encountered at >6mbgl and reported only low concentrations of metals. Other COPCs were below LORs. Top-down contamination from fill and other potential identified sources (such as the yard maintenance shed) on site was not indicated.
- Asbestos in the form of bonded ACM was reported in fill from the grassed area behind the workshops and yard maintenance shed and the pathology building. The potential also exists for asbestos debris to be present beneath the footprints of these buildings. Some of the asbestos was reported in the surface soils therefore would not meet the HSL requirement for no visible forms of asbestos.

2.2.3 Site Considerations and Constraints

Section 10.7 Planning Certificate No. 4871 – 4879 dated 10 May 2023 identifies that the site is located across the SP2 Health Services Facility zone under the Cessnock Local Environmental Plan 2011, and is provided at **Appendix A.**

Table 2: Section 10.7 Planning Certificate

Affectation	Yes	No
Critical habitat		✓
Conservation area		✓
Item of environmental heritage	✓	
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		✓
Affected by a policy that restricts development of land due to the likelihood of landslip		✓
Affected by bushfire, tidal inundation, subsidence, acid sulfate or any other risk		✓
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		✓

2.3 Surrounding Development

The site is located between low density residential development to the north west and medium density development and the Cessnock town centre to the south east. The site's surrounding development is described below.

- **North:** Immediately north of the site is Mountain View Lodge Hostel, an aged care facility. Beyond that is primarily low-density residential development and Mavis Street Park.
- **East:** Immediately east of the site is primarily low density detached dwellings which extends further east across Cessnock.

- **South:** Directly South of the site consists of low density detached dwellings. Further southwest is PCYC Cessnock and Harold Lett Field and to the south is the Cessnock local centre.
- **West:** To the west of the site is a NSW Ambulance station and a number of single detached dwellings, whilst further southwest is the Cessnock and District Agricultural Association Showground and Mount View Basin Park.

3. Proposed Activity

3.1 Proposal Overview

This REF relates to the construction and operation of a new two-storey clinical services building at Cessnock Hospital, which includes the following works:

- Site establishment and preparation including demolition, earthworks, removal of any hardstand areas, as well as tree removal;
- Realignment of internal roads, visitor and drop off parking, emergency services road, as well as resurfacing of the existing car park in the western portion of the site;
- Delivery of a new primary vehicular and pedestrian entrance to the hospital campus from Jurd Street, as well as resurfacing, guttering and kerbing works along Jurd Street adjacent to the Hospital;
- Construction and operation of a new 2-storey clinical services building in the northern portion of the site, including:
  - Emergency Department (ED);
  - Medical Imaging;
  - Perioperative Suite;
  - Sterilising Services Unit (SSU);
  - 2 x Inpatient Units (IPUs);
  - Pharmacy;
  - Mortuary; and
  - Front of House (FOH) services.
- Associated landscaping works including tree replacement planting (resulting in a total of 207 trees), new paving, and retaining walls.
- Installation and realignment of selected services, including water, sewerage and electricity.
- Installation of ancillary development including, but not limited to, lighting as well as signage.

Architectural Drawings as well as a Design Report illustrating the proposed activity have been prepared by Fitzpatrick & Partners and are included at **Appendix A** and **D**. The proposed site plan is shown at **Figure 6** below.

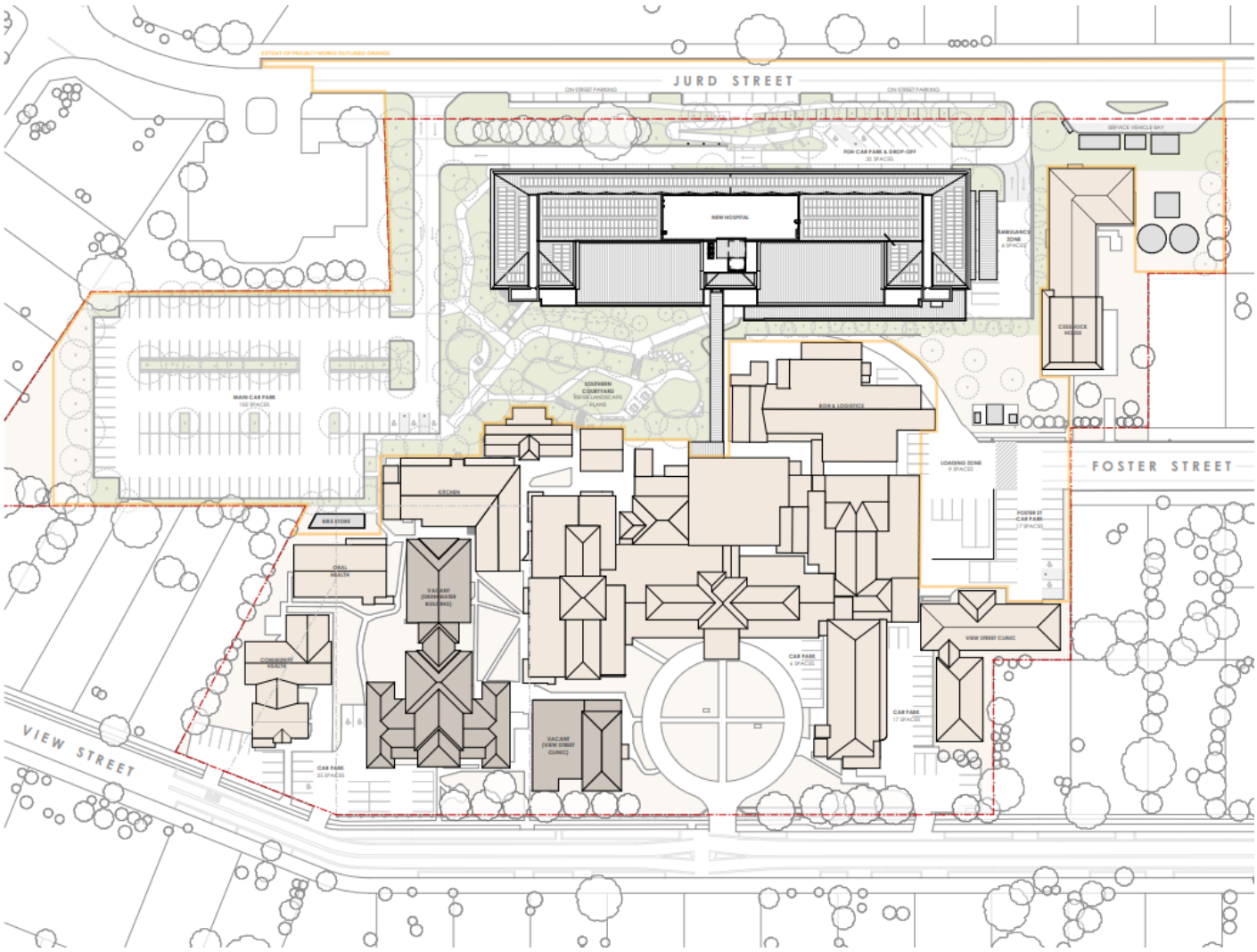


Figure 6 Architectural Plans of Proposed Redevelopment of Cessnock Hospital Health Service

Source: Fitzpatricks + Partners Architects

3.1.1 Design Approach

The REF is accompanied by an Architectural Design Report prepared by Fitzpatrick & Partners Architects provided at **Appendix D** that outlines the Proposal's design approach, which is also summarised below.

Placemaking and Design

The Project Team in conjunction with HNELHD representatives have identified a series of Design Principles to guide the progression of the design in alignment with stakeholder aspirations and expectations. These principles span six key categories and have informed decision-making throughout the planning and design development phases of the project. The principles established within the Architectural Design Report (**Appendix D**) include:

- Patient Focused;
  - a quality clinical environment that is safe, accessible and inclusive
  - enhance the experience and amenity for carers and families
  - enhance clinical connectivity including outpatient and community services
- Physical Infrastructure;
  - Design that is human centred, biophilic and less clinical in experience

  - Flexible and adaptable to future models of care and expansion of services
  - A permeable campus with intuitive wayfinding
- Inclusive Community;
  - Outcomes that speak to Cessnock's history, culture and identity
  - Welcoming and open for all health care consumers
  - Meaningful connection to country
- Breaking the Mould;
  - Encourage innovation with an understanding and acceptance of risk
  - Challenge the status-quo to seek design excellence and efficiency
  - Seek design excellence through creativity and free exploration of ideas
- A Beacon of Wellness; and
  - Spaces that support staff performance, wellbeing and retention
  - Design that promotes health and wellness in the community
  - New models of care to promote innovation and efficiency of operation
- Wholistic Sustainability.
  - Net positive impact on natural landscape and ecology
  - Minimise operational and embodied carbon
  - Enhance the local landscape and deliver quality open space.

Connecting with Country/Engagement

The Architectural Design report (**Appendix D**) also outlines the collaboration and consultation that has been undertaken with local First Nations groups and how this process has informed the Proposal's design. This process included an initial meeting, a walk on Country hosted by the Local Elders to understand local Wonnarua Country including a visit to Baiame Cave, six Connecting with Country workshops during the planning and design phases of the project and the shared development of a Connecting with Country Framework. The following design moves were informed by the learnings of this process:

- Maximising views and outlook to the surrounding landscape and district views including Yengo National Park and Mount View.
- Adopting a motif inspired by the ridgelines of Yengo National Park throughout all aspects of the design including the landscape and interior design, the facade composition and joinery design.
- Adopting colours for the interior design and facade that are inspired by the local natural environment and natural earth ochre pigment provided by the Working Group.
- Incorporation of a cultural Gathering Room with balcony and primary northern views out to Yengo National Park.
- Incorporation of gathering spaces within the landscape that allow for large family groups, yarning and smoking ceremonies.
- Display spaces within the foyer for indigenous artefacts, artwork and storytelling.
- Public spaces and joinery with design elements inspired by nature including organic forms and natural materials.

- Celebration of water harvesting and management throughout the landscape with wicking beds, absorption trenches, passive irrigation and dry river paths.
- Privacy of flows and circulation for corrections patients.
- Story-telling of endangered native species throughout the interior design including the Regent Honeyeater.
- A high-quality architectural design and health-care facility that will instil pride in the local indigenous community.

Furthermore, the hospital's interior design is intended to incorporate artworks, murals and feature windows that reflect the natural characteristics, colours and patterns of Country.

Sustainability and Climate Resilience

The redevelopment of Cessnock Hospital is focused on achieving industry-leading sustainable design outcomes in accordance with HNELHD targets to be carbon and waste neutral by 2030. As the project develops, particular consideration will be given to embodied carbon, ongoing operational energy and operation carbon of the redevelopment. As described above, the hospital will be constructed to meet Health Infrastructure's Ecologically Sustainable Development (ESD) performance requirements, including

- Compliance with HI DGN 058
- Alignment with HNELHD Carbon & Waste 2030 Strategy
- Compliance with current NCC Building Codes

This REF is accompanied by an ESD Report that outlines the ESD initiatives that will be include within the project to achieve the above objectives provided at **Appendix I**. Additionally a framework for ESD is provided in the Architectural Design Report at **Appendix D**.

3.1.2 Site Preparation Works

Demolition and Tree Removal

In order to facilitate the redevelopment of Cessnock Hospital and associated infrastructure works, the proposed activity seeks to undertake the following demolition and tree removal works:

- Three (3) existing trees that are in direct conflict with the proposed new driveway off Jurd Street will need to be removed (these will be replaced in accordance with the Landscape Plan – discussed further in **Section 3.1.5**).
- Demolition of selected buildings and removal of hardstand.

The proposed demolition plan applicable to the proposed activity is provided in **Figure 7** below.

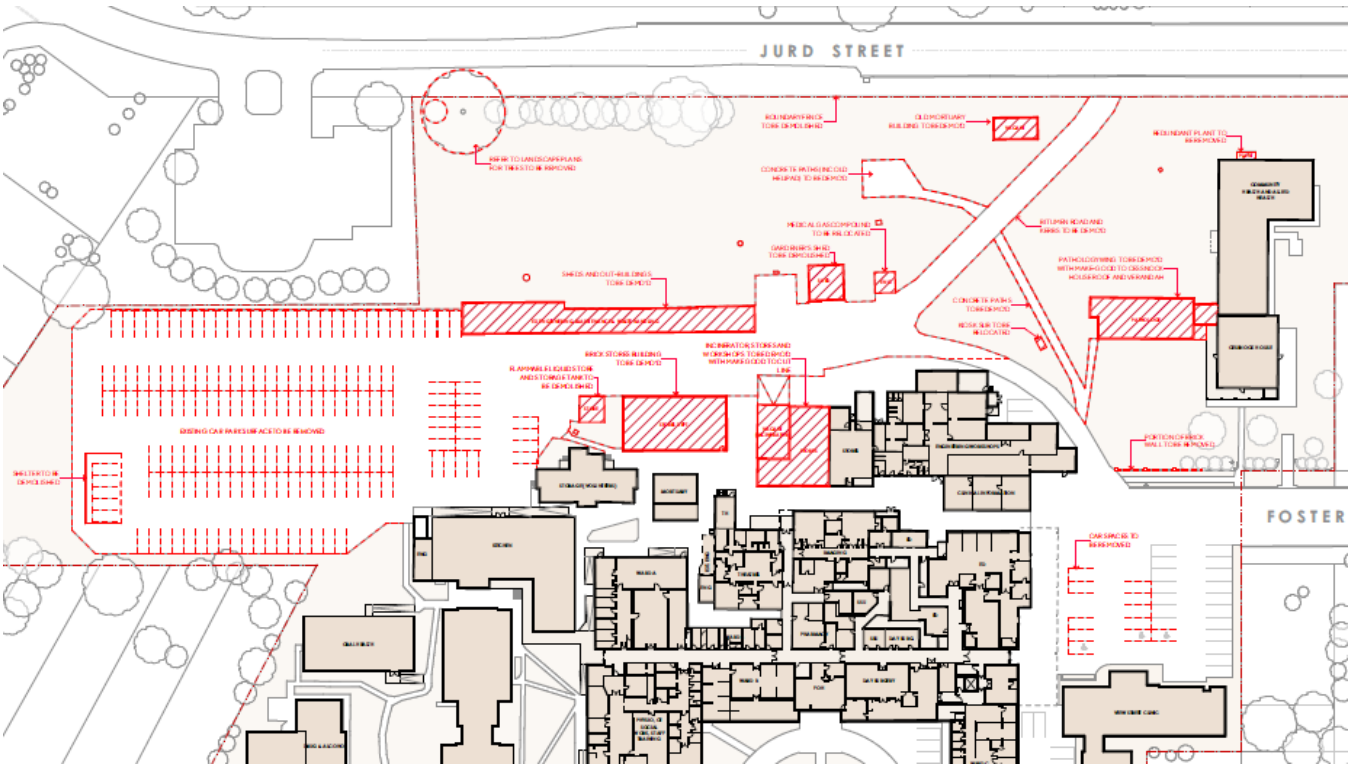


Figure 7 Proposed demolition plan

Source: Fitzpatrick & Partners

Earthworks

Earthworks will also be undertaken across the site to achieve the desired building design levels, as well as enable relaying of bitumen on carparks, where necessary. This will result in a total cut volume of approximately 7,853m^3, and a total fill volume of approximately 2,225m^3. This is shown below in **Figure 8**.

A civil earthworks statement has also been prepared by Enstruct and is provided at **Appendix P**, detailing the proposed cut and fill strategy for the proposed activity.

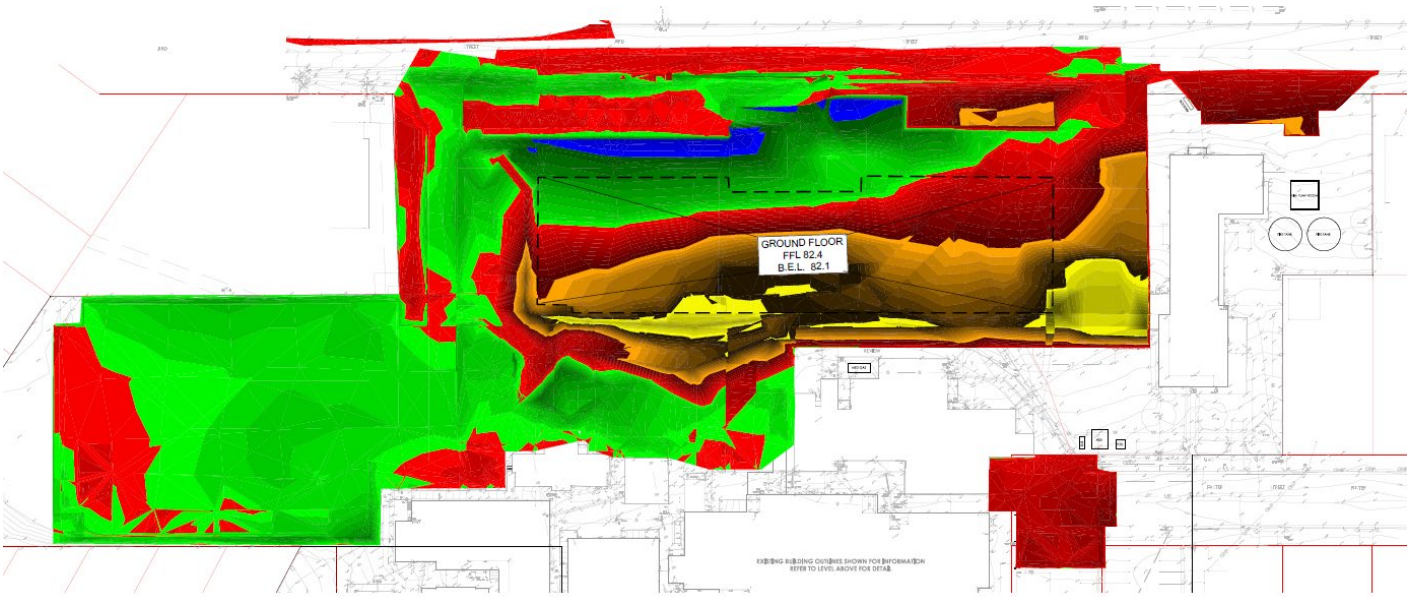


Figure 8 Proposed cut and fill across the site

Source: Enstruct

3.1.3 Built Form

The proposed works seek to construct a 2-storey clinical services building in the northern portion of the site, generally occupying the existing grassed lawn and helipad. Key elements of the proposed building include:

- IPU's aligned horizontally on a single level;
- New primary entry from Jurd Street;
- Priority Car parking at main entrance;
- Vehicular entry/exit;
- On-grade car park to be retained, re-surfaced and improved;
- Back-of-House access from Foster Street;
- Enclosed pedestrian walkway to original hospital building.

The ground floor will feature the building's main entrance from Jurd Street (see **Figure 10**), noting that most visitors to the building will use this entrance, with a secondary entrance also being provided adjacent to the car park. The first floor features a rear entrance (see **Figure 11**) that will connect to the main hospital building via a pedestrian enclosed walkway, which is envisaged to be predominantly used for back of house services. The top level of the building will act as a plant room for the building and is substantially set back from the first floor's roofline to provide visual screening.

Photomontages of the proposed development are shown in **Figure 9** to **Figure 11** below.

Figure 9 Jurd Street View looking West

Source: Fitzpatrick + Partners

Figure 10 Jurd Street Main Entry View

Source: Fitzpatrick + Partners

Figure 11 Southern Courtyard View looking north-east

Source: Fitzpatrick + Partners

3.1.4 Roadworks and Parking

Vehicle Access Arrangements

The proposed activity seeks to construct a new vehicular driveway from Jurd Street which will provide access to the new clinical services building. In light of this, the hospital main entry will relocate from View Street to this new Jurd Street entrance, with drop off and pick up occurring along the new building frontage, adjacent to the short-term angle

parking. Ambulance access will also occur from Jurd Street to a dedicated ambulance bay area adjacent to the new Emergency Department (ED).

Further, it has been recommended that the existing bus stop on View Street is relocated to Jurd Street, adjacent to the new hospital entrance. The delivery of a new bus stop does not form part of the REF however, and this will be subject to further consultation with TfNSW.

A dedicated loading bay and service area will also be provided in the location of an existing car park adjacent to Foster Street, with access being retained from this street.

Pick up/drop off area

The redevelopment will provide a pick-up and drop off area adjacent to the new building entrance. The drop off area is accessed via one way circulation from Jurd Street. Once the drop off has occurred it is intended that vehicles can proceed to the public car park located on the western end of the site for long term parking.

3.1.5 Tree Removal and Landscaping

The REF is accompanied by a Landscape Design Report and Landscape Plans prepared by Clouston Associates (**Appendix L** & **M**). Drawing upon analysis of the site and its surroundings, including the learnings of the Connecting with Country process and best practice design of health facilities, these documents present a site-wide landscaping strategy that incorporates a range of native plantings seeking to surround the hospital with extensive tree canopy and gardens. This includes:

- Different spaces for individual respite as well as social and family gatherings;
- Seating options, including shelters, tables, and chairs for lunch and gatherings; and
- A courtyard with views northwest toward the surrounding ridgelines.

The landscape strategy will deliver a total of 207 trees on site, comprising of shrubs and other small scale planting as well as trees capable of growing to maturity. In light of the proposed landscaping scheme, it is noted that the site's canopy coverage will increase from 3.04% to 30.77%.

An extract of the landscaping plans in **Figure 12** below:

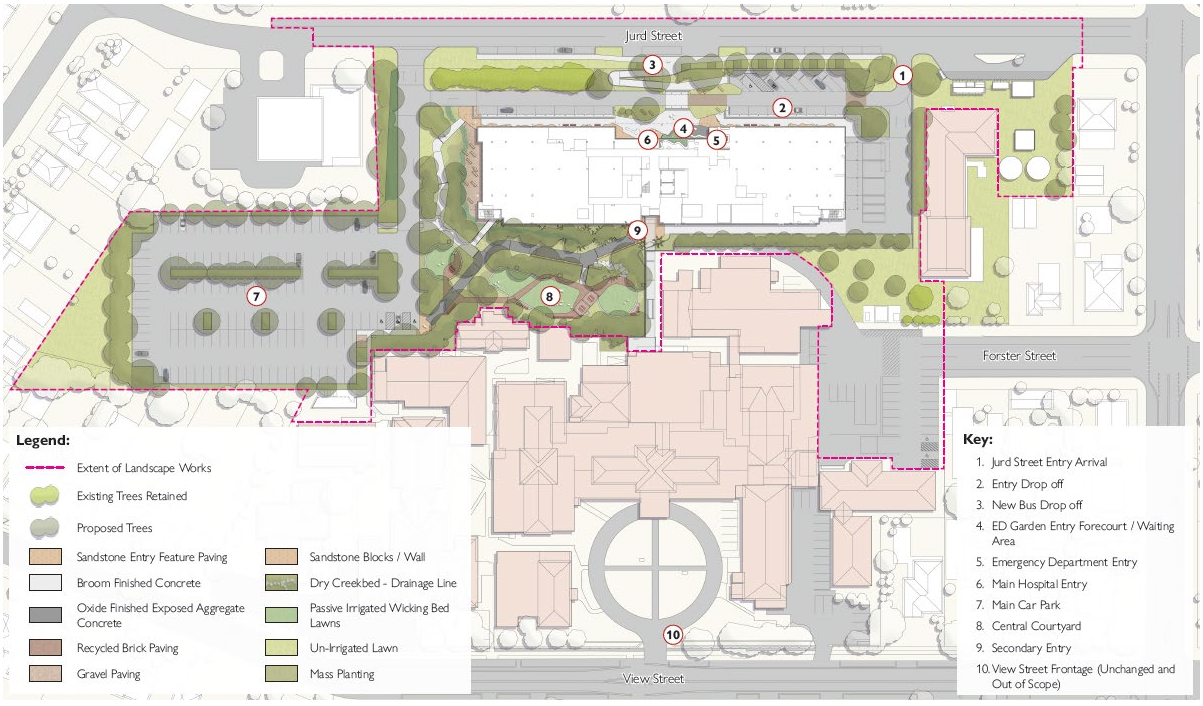


Figure 12 Landscape Design plan

Source: Source: Clouston Associates

3.1.6 Services and Infrastructure

The REF is accompanied by a Civil Design Report (**Appendix N**) and Civil Engineering Drawings (**Appendix O**) prepared by Enstruct and a Hydraulic Services Design Statement (**Appendix S**) and an Electrical Services Design Statement (**Appendix R**) prepared by JHA that describe how the new hospital will be connected to services and utilities. This includes stormwater, electrical, mechanical services, hydraulic services, medical gas services, water, sewer, gas, and fire services. The table below summarises how key services and utilities will be provided.

Table 3: Services and Infrastructure provision

Service	Description
Stormwater	The site will require Onsite Stormwater Detention (OSD) for all areas except the existing car park, as well as stormwater quality control measures. An OSD tank sized is to be 260m3. The water quality measures include a storm filter chamber within the OSD tank containing six Ocean Protect Storm filters, a Filterra bio-retention for treatment of the car-park run-off and Ocean Protect Ocean Guard pit inserts within grated inlet pits across the site.
Electrical	New electrical infrastructure works will be installed throughout the proposed site, including: • New Ausgrid-owned 1,000kVA kiosk substation to replace the existing 800kVA kiosk substation. • New Main Switch Board (MSB) room, housing a new MSB to be fed from the New Kiosk Substation and serve the existing campus and New Building. • New Main Distribution Board (MDB) room within the New Building, housing a new MDB to serve the power requirements of the New Building and new external areas. • New Standby Diesel Generator on the roof of the New Build to serve the critical electrical loads as per the NSW Health Engineering Services Guidelines (ESG), AS/NZS 3009 and other codes and standards. • New Photo-Voltaic (PV) system on the roof of the New Build. • New exterior lighting to serve the internal roads, pathways and carparks. • New 5x 22kW Electric Vehicle Charging Stations (EVCS) dedicated to the NSW Health EV fleet installed from Day 1 with an active load management system plus future provisions in the Electrical Distribution Board (EDB) to charge 10 additional vehicles using 22KW EVCS. • Diversion of power supply of existing buildings such as the Kitchen and Mortuary due to the pathway of the sub-main cabling reticulation is within the demolition zones. Ausgrid has confirmed that adequate capacity is available in the existing HV feeder to upgrade the existing substation to serve the proposed scope of works. A new incoming telecommunications provider service (NBN lead-in) is proposed from Jurd Street.
Water	A new cold-water supply for the new hospital building will be connected to the watermain in Jurd Street. This will also be interconnected with the existing 80mm supply from View Street and existing 50mm metered supplies from Foster Street, in order to provide additional redundancy of supply to the hospital site in case of future mains failure / interruption of supply to one of the watermains.
Sewer	There are 5 existing Hunter Water sewer connections at various points around the site. The existing sewer connection is capable of supporting the proposed new development. However, the new hospital building is not capable of draining to the existing sewer connection due to the proposed floor levels. To avoid a sewer pump station, it is proposed to gravity drain the new building to an existing Hunter Water sewer main in private property across Jurd Street to the north of the site.
Gas	While there is an existing natural gas supply and meter assembly servicing Cessnock Hospital, it is intended that the proposed activity will require no gas equipment in the new building therefore no gas services work is required.

3.1.7 Signage

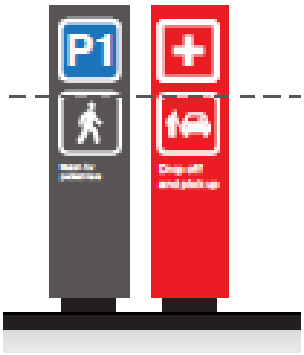
The proposal includes the following external signs which are also detailed within the Architectural Plans at **Appendix A** and described in **Table 4** below.

Table 4: Proposed signage

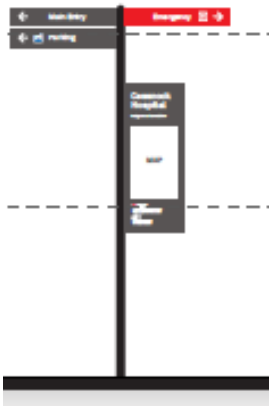
Sign Type/Image	Number proposed/dimensions	Description
Type 1	• 1x 3.0m (height) x 1.2m (width)	• freestanding directional pylon sign with illuminated letters and decals located near the hospitals entrance

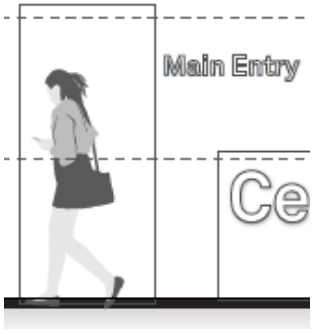
Type 2	• 4x 1.4m (height) x 1.2m (width)	• freestanding sign located near entrance points to the site

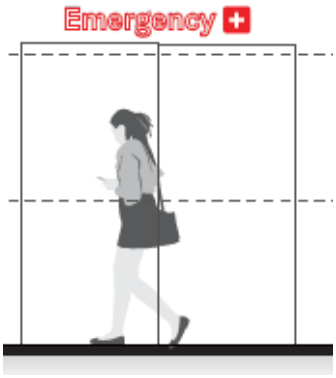
Type 3	• 2x 1.4m (height) x 0.4m (width)	• freestanding carparking/drop off sign



Type 4	• 4x 2.2m (height) x 1.2m (width)	• freestanding directional signpost



Type 5 	• 4x 2.2m (height) x 1.2m (width)	• freestanding directional signpost
Type 6 	• 3x 0.2m (height) x 1.0m (width)	• door wall sign indicating main entry points
Type 7 	• 1x 0.5m (height) x 4.5m (width)	• illuminated letters sign stating “Cessnock Hospital” located at the main entrance
Type 8	• 1x 0.5m (height) x 3.0m (width)	• illuminated letters sign stating "Emergency” located at the main entrance

Type 9 	• 3x 0.2m (height) x 1.4m (width)	• illuminated letters and decals wall sign indicating emergency department located at main entry points

3.2 Strategic Justification

Cessnock Hospital is a district hospital that provides subacute, emergency, ambulatory care and oral health. The main hospital was built in 1914 and for that reason many of the existing buildings are aged and in need of upgrading and improving. Furthermore, Cessnock's population is predicted to grow within the next 10 years and like many other parts of Australia the local population is ageing.

In response to the above challenges, the redevelopment of Cessnock Hospital was identified in Hunter New England Health Strategic Plan 2021 to 2025 as a strategic action to plan and invest in infrastructure and facilities. This has been established as a key priority to construct new or upgrade facilities to address the increasing demand and ageing infrastructure.

3.3 Construction Activities

A summary of the proposed construction activities are detailed in **Table 5** below. Further detail is also provided within the Preliminary Construction Management Plan (refer **Appendix II**).

Table 5: Project Timeframes and Construction Activities

Construction activity	Description
Commencement Date	Construction for the proposed works is expected to commence in July 2025.
Work Duration/Methodology	The duration of the overall works program is approximately 22 months. The indicative program for the works is outlined below: • Contract Award – April 2025 • Site Establishment – July 2025 • Complete Site Works - May 2027

Construction activity	Description
Work Hours and Duration/Construction	The working hours will be in accordance with the Interim Construction Noise Guideline, as follows: • Monday to Friday: 7am to 6pm. • Saturday: 8am to 1pm. • Sunday and Public Holidays: No Work. No machine work will occur outside of the standard construction hours to minimise the impact on hospital staff, patients, visitors and nearby sensitive receivers, unless approval has been given by the Disruption Notice process.
Workforce/Employment	The number of construction personnel is currently unknown and will be confirmed within the Construction Management Plan prepared by the Principal Contractor upon appointment. The average number of workers during peak activities is anticipated to be around 80 to 100 workers on-site per day across the duration of the project.
Ancillary Facilities	The site amenities and compounds erected will accommodate lunch, bathroom and change facilities for the duration of the project. The Contractor will be encouraged to provide parking within their site compound where possible. To minimise the impact on street parking, contractors and sub-contractors will be encouraged to use public transport or car share.
Plant Equipment	The following plant equipment is anticipated for the works: • powered mobile plant; • excavators; • cranes; • personnel and/or materials hoists; • air compressors; • electric generators jack hammers; • hydraulic jacks; • oxy-acetylene (gas cutting/welding); • concrete saws and corers; • scaffolding; • ladders (limited use); and • many types of handheld plant, including: angle grinders, power saws, hammers, demolition saws, hydraulic jacks and pinch/lever bars.
Earthworks	A Civil Earthworks Statement has been prepared by Enstrcut and is provided at **Appendix P** and estimates the volumes of cut and fill. The overall project requires a net cut of 4,824 cubic meters, including 989 cubic meters of clay and a net fill of 2180 cubic metres.
Traffic Management and Access	Prior to construction works commencing, the Head Contractor will develop a Construction Pedestrian and Traffic Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works. Traffic flows and vehicle/pedestrian separation are a major consideration and pedestrian routes are to be maintained throughout construction. Traffic control personnel will be provided by the Head Contractor during operating hours, or as advised by the Head Contractor within their Construction Pedestrian and Traffic Management Plan. The plan will include pedestrian protection, deliveries and material storage and parking.

3.4 Operational Activities

Use

The site will continue to operate as a health services facility, meaning a building or place used to provide medical or other services relating to the maintenance or improvement of the health, or the restoration to health, of persons or the prevention of disease in or treatment of injury to persons.

Operation Hours

The new hospital will continue to operate 24 hours, 7 days a week, as per the Cessnock Hospital current operating hours.

4. Statutory Framework

4.1 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 (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 services facilities. Cessnock Hospital is defined as a health services facility in accordance with the Standard Instrument – Principal Local Environmental Plan.

As the proposed activity involves the erection of a building that is a new health services facility (the clinical services building) within the boundaries of the existing Cessnock Hospital, and it is to be carried out by and on behalf of Health Infrastructure, the 'development permitted without consent' provisions under Section 2.61 of the TI SEPP apply.

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 (REF). The proposal is considered an 'activity' in accordance with Section 5.1 of the EP&A Act because works involve the demolition of existing structures and the erection of a building which is being carried out by a public authority.

Table 6 below outlines the Sections of the TI SEPP that enable the proposed works to be undertaken by HI as a public authority as 'development permitted without consent'.

Table 6: Description of proposed activities

Division and Section within TI SEPP	Description of Works
Part 2.3, Division 5 – Electricity Transmission or Distribution	
Section 2.44(1) – 'Development for the purpose of an electricity transmission or distribution network'	The proposed ancillary works associated with the installation and augmentation of electrical services can be undertaken as development without consent by a public authority on any land. The proposed electrical works are being carried out by HI (a public authority). Therefore, the proposal is consistent with Section 2.44 of the TISEPP.
Part 2.3, Division 10 – Health Services Facilities	
Section 2.61(1)(a) – 'the erection or alteration of, or addition to, a building that is a health services facility'	The proposed construction of a new facility (which is defined as a health service facility under this Division) can be carried out by or on behalf of a public authority without consent on any land within the boundaries of an existing health services facility, so long as: a) the public authority is satisfied that appropriate consultation has been undertaken having regard to— i. the SCPP—new health services facilities and schools, and ii. the community participation plan, and b) the public authority has considered the design guide, and c) the development will not involve more than 30,000m^2 of gross floor area on the site being created or affected. The proposed works are being carried out by HI (a public authority) within the boundaries of the existing Cessnock Hospital. The proposal will not involve more than 30,000m^2 of gross floor area. The Architectural Design Report prepared by Fitzpatrick and Partners (**Appendix C**) has demonstrated how the proposal has considered the NSW Design Guide for Health: Spaces, Places and Precincts, with regard to the key principles. **Section** Error! Reference source not found. of this REF sets out the necessary stakeholder and community consultation that has been and will be undertaken for the project, in accordance with both the Stakeholder and community participation plan for new health services facilities and schools (**SCPP**) and Health Infrastructure Community Participation Plan. This Section of the REF sets out the community and other stakeholder engagement that has already been undertaken during the preparation of the proposal, including with local residents and Connecting with Country Working Groups. Refer to **Section** Error! Reference source not found. for further details. The proposal is therefore consistent with Section 2.61(1)(e) of the TISEPP.

Division and Section within TI SEPP	Description of Works
Section 2.61(1)(c) – 'Demolition of buildings carried out for a health service facility'.	The proposed demolition works can be carried out by or on behalf of a public authority without consent on any land within the boundaries of an existing health services facility. The proposed demolition works are being carried out by HI (a public authority) within the boundaries of the Cessnock Hospital. Therefore, the Proposal is consistent with Section 2.61(1)(c) of the TISEPP.
Section 2.61(1)(e) – 'development for the purposes of car parks to service patients or staff of, or visitors to, the health services facility (or to service staff of, or visitors to, other premises within the boundaries of the facility)'	The proposed construction of an associated at-grade car park can be carried out by or on behalf of a public authority without consent on any land. The proposed works are being carried out by HI (a public authority) within the boundaries of the existing Cessnock Hospital. The proposal is therefore consistent with Section 2.61(1)(e) of the TI SEPP.
Division 17 – Roads and Traffic	
Section 2.109(1) - Development for the purpose of a road or road infrastructure facilities	The proposed driveway works, and connections to Jurd Street, are being carried out by HI (a public authority) and the site is not land reserved under the *National Parks and Wildlife Act 1974*. Therefore, the proposed activity is consistent with Sections 2.109(1) of the TI SEPP.
Division 18 – Sewerage Systems	
Section 2.126(6) – 'development for the purpose of sewage reticulation systems'	The proposed sewer connections can be carried out by or on behalf of a public authority without consent on any land. The proposed works are being carried out by HI (a public authority). Therefore, the Proposal is consistent with Section 2.126(1) and (6) of the TI SEPP.
Division 20 – Stormwater Management Systems	
Section 2.137(1) – 'development for the purpose of stormwater management systems'	The proposed stormwater management system can be carried out by or on behalf of a public authority without consent on any land without consent. The proposed works are being carried out by HI (a public authority). Therefore, the Proposal is consistent with Section 2.137(1) of the TI SEPP.
Division 24 – Water Supply System	
Section 2.159(1) – 'Development for the purpose of water reticulation systems'	The proposed water supply connections can be carried out by or on behalf of a public authority without consent on any land. The proposed works are being carried out by HI (a public authority). Therefore, the Proposal is consistent with Section 2.159(1) of the TI SEPP.

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 (REF).

TI SEPP consultation requirements are discussed within **Section 6** of this REF.

4.2 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act do affect the proposed activity 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, nor does the proposed activity affect any matters of national significance. An assessment against the EPBC Act checklist is provided at **Table 7**.

Table 7: EPBC Checklist

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
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

Consideration	Yes/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 8** below**.**

Table 8: 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 proposed activity promotes the social and economic welfare of the community and a better environment through the provision of much needed additional health services that will service the health care needs of the Cessnock and broader Hunter Valley region. The proposed works will appropriately manage, develop, and conserve the state's resources through the orderly construction and operation of the proposed works on the subject site.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The proposed activity will facilitate ecologically sustainable development. An ESD Statement has been prepared by Lucid Consulting to describe the sustainable design initiatives and outcomes associated with the Proposal (refer to **Appendix I** for further details).
(c) to promote the orderly and economic use and development of land,	The Proposal allows for the orderly economic development of the land for a public use and provides improved health care infrastructure that is able to implement contemporary models of care.
(d) to promote the delivery and maintenance of affordable housing,	The works are in relation to a new health services facility and does not include the delivery of affordable housing.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	An Arboricultural Impact Assessment and Tree Protection Management Plan has been prepared by Active Green Services and is provided at **Appendix J**, as well as a Biodiversity Development Assessment Report (BDAR) prepared by Narla Environmental **(**refer **Appendix K)**. The reports conclude that no EPBC listed Threatened Ecological Communities were recorded in the site. The Proposal is unlikely to have a significant impact, and any potential impacts can be appropriately managed through mitigation measures detailed in **Appendix B**.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	A Statement of Heritage Impact prepared by Umwelt is provided at **Appendix H** and an Aboriginal Cultural Heritage Assessment Report prepared by Biosis is provided at **Appendix G**. These reports acknowledge the sites heritage and significance and assess the proposed activity's impacts. The reports conclude that the proposed activity will cause little impact on the heritage significance of the site. Further discussion is also provided in the relevant sub-sections further below.
(g) to promote good design and amenity of the built environment,	The Proposal achieves a high-quality design outcome that will benefit patients, staff and visitors. Refer to the Architectural Design Report prepared by Fitzpatrick + Partners included at **Appendix D** for further details.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The construction and maintenance will occur safely and orderly to promote the protection of the health and safety of the occupants. Refer to the Preliminary Construction Management Plan included at **Appendix II** and mitigation measures at **Appendix B**.
(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	The Proposal promotes the sharing of responsibility for environmental planning and assessment across levels of Government in the State, as the works are being carried out by HI (a public authority) and requires notification to Cessnock City Council and consideration of the comments raised.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	The REF scope of works requires statutory notification to stakeholders, including Council and adjoining landowners of the site. The works have evolved through a series of non-statutory consultation processes with community groups, Connecting with Country Working Groups and staff. Refer to **Section 5** for further details.

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 9 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 9: 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 *Wilderness Act 1987*) in the locality in which the activity is intended to be carried on.	No effect, as the site is not located within or in the vicinity of a wilderness area as defined under the *Wilderness Act 1987*.
Note: If a biobanking statement has been issued in respect of a development under Part 7A of the *Threatened Species Conservation Act 1995*, 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) and *Consideration of environmental factors for health services facilities and schools, dated October 2024* 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 10: Other Possible Legislative Requirements

Legislation	Comment	Relevant? Yes/No
State Legislation		
Rural Fires Act 1997	The site is not identified as bushfire prone land.	No
Biodiversity Conservation Act 2016	The site does not contain any critical habitat, threatened species or ecological population or community.	No
Water Management Act 2000	The site is not located within 40 metres of a watercourse.	No
Contaminated Land Management Act 1997	The site is not listed on the register of contaminated sites.	No
Heritage Act 1977	The site is listed as a local heritage item.	Yes

Legislation	Comment	Relevant? Yes/No
Roads Act 1993	A new driveway connection is proposed to Jurd Street.	Yes
Local Government Act 1993	No water or sewer supply head works are proposed.	No
National Parks and Wildlife Act 1974	Not applicable to the subject site.	No
Crown Land Management Act 2016	Not applicable to the subject site.	No
Protection of the Environment Operations Act 1997	There is no requirement for an environment protection licence.	No
NSW Reconstruction Authority Act 2022	Not applicable to the subject site.	No
State Legislation Planning Policies		
State Environmental Planning Policy (Resilience and Hazards) 2021	The *State Environmental Planning (Resilience and Hazards) 2021* (R&H SEPP) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. **Chapter 4 – Remediation of Land** Section 4.6 stipulates that a consent authority must not consent to the carrying out of development unless: • It has considered whether the land is contaminated, and if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out. • If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose. A number of contamination investigations have been undertaken for the site culminating in a Remediation Action Plan (RAP) for localised contamination found at the site (refer to **Appendix GG**). Details of the investigations and RAP are discussed further in **Section 6.2.14** of this report. In summary, the site will be remediated as Category 1 remediation works, requiring development consent, prior to commencing earthworks associated with this proposed activity to ensure it is suitable for the future Hospital use. A Hazardous Building Materials Survey (HBMS) has also been undertaken for the site which identified hazardous materials in structures on the site, including Asbestos Containing Materials (ACM) (refer to **Appendix Q**). The report provides measures to address the handling and removal of any hazardous materials. The findings of the report and potential impacts associated with hazardous materials and contamination are discussed further in **Section 6.2.14**.	Yes – discussed in **Section 6.2.14.**
	Section 3.12 outlines mandatory matters for a consent authority to consider when determining an application for potentially hazardous or offensive development. Chapter 3 applies to any proposals which fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'. The works proposed as part of this REF do not meet the thresholds to require a Preliminary Hazard Analysis.	No
State Environmental Planning Policy (Industry and Employment) 2021	Chapter 3 Advertising and Signage provisions apply. Any new signage installed as part of the Activity will need to comply with Section 3.1(1)(a) of the SEPP, whereby it: • is compatible with the desired amenity and visual character of an area, and • provides effective communication in suitable locations, and • is of high-quality design and finish. The signage that forms part of the Activity is detailed in the signage plans provided in **Appendix A.**	Yes – discussed in **Section 4.5.1**

Legislation	Comment	Relevant? Yes/No
State Environmental Planning Policy (Sustainable Buildings) 2022	Chapter 3 of this SEPP applies to non-residential development that involves erection of a new building with capital investment value over $5 million or alterations, enlargement, or extension of an existing building if the development has a capital investment value of $10 million or more. However, this SEPP does not apply to development under Part 5 of the EP&A Act. Notwithstanding, the provisions of the SEPP should be considered as part of the environmental impact assessment for the project. An ESD Report has been provided at **Appendix I** which includes an assessment of the environmentally sustainable development measures incorporated into the development design, as per Chapter 3 of the SEPP.	No
State Environmental Planning Policy (Transport and Infrastructure) 2021	The relevant planning approval matters pursuant to TI SEPP have been discussed in **Section 4.1**. The proposed Activity is defined as 'development permitted without consent' under Section 2.44 and Section 2.61 of TI SEPP and therefore requires assessment under Part 5 of the EP&A Act. Sections 2.10 – 2.15, 2.45 and 2.62 of TI SEPP set out requirements for consultation with councils, other public authorities, and occupiers of adjoining land. These requirements are addressed in Section 5 of this REF.	Yes
Cessnock Local Environmental Plan 2011		
Zone	The site is zoned "SP2 Infrastructure". The zone's objectives and permitted and prohibited development are presented below. **1 Objectives of the zone** • To provide for infrastructure and related uses • To prevent development that is not compatible with or that may detract from the provision of infrastructure **2 Permitted without consent** Roads **3 Permitted with consent** Aquaculture; Group homes; The purpose shown on the ***Land Zoning Map***, including any development that is ordinarily incidental or ancillary to development for that purpose **4 Prohibited** Any development not specified in item 2 or 3 The development of a Health Services Facility is permitted within the SP2 Zone. The Proposal is consistent with the objectives of the SP2 Zone as it will deliver health infrastructure within the Cessnock Hospital Campus to support the health needs of the local community.	
Height of Buildings	There is no mapped maximum building height under the LEP for the site.	
Floor Space Ratio	There is no mapped floor space ratio under the LEP for the site.	
Heritage	The site is classified as a heritage item (Cessnock Hospital Significance: Local) but there will be no adverse impacts on the site's heritage significance as discussed in the Statement of Heritage Impact (**Appendix H**).	
Bush Fire Hazard Reduction	The site is not identified as bushfire prone.	
Flood Planning	The site is not identified as being within a flood prone area.	
Airspace Operations	The proposed clinical services building will not be within the Cessnock Aerodrome OLS.	

4.5.1 Industry and Employment Signage SEPP Assessment

The proposed signs outlined in **Section 3.1.7** are consistent with the objectives of Section 3.1(1)(a) of the *State Environmental Planning Policy (Industry and Employment) 2021* as they are compatible with the proposed development will provide effective communication, are integrated into the proposed building design and will be of a

high-quality design and finish. The proposed signs are also consistent with the assessment criteria specified in Schedule 5 of the SEPP, as outlined in **Table 11** below.

Table 11: Schedule 5 Assessment

Criteria	Assessment
Character of the area	
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed signage is compatible with the site's desired future character as it appropriately identifies the site as a health services facility while also providing wayfinding benefits.
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	Not applicable – there is no identified theme for outdoor advertising in the area or locality.
Special areas	
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposed signage will not detract from the amenity or visual quality of the area. Signage has been thoughtfully considered and will feature high-quality finishes.
Views and vistas	
Does the proposal obscure or compromise important views?	No, the proposed signs are appropriately sized and located to not dominate the skyline. As such, the proposed signage does not obscure or compromise important views or reduce the quality of vistas.
Does the proposal dominate the skyline and reduce the quality of vistas?	
Does the proposal respect the viewing rights of other advertisers?	
Streetscape, setting or landscape	
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	Yes, the proposed signage is scaled to be visible for users to navigate the site while not appearing out of scale, setting or landscape.
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	N/A
Does the proposal screen unsightliness?	The proposed signs' purpose does not involve screening unsightliness.
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signs do not protrude above the proposed clinical services building.
Does the proposal require ongoing vegetation management?	No
Site and building	
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage has been thoughtfully considered to help future patients, workers, suppliers, and visitors navigate the site. They are entirely compatible with the characteristics of the site and the proposed hospital.
Does the proposal respect important features of the site or building, or both?	Yes. The proposed signage is consistent with the design and features of the hospital.
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The signs have been carefully designed to integrate seamlessly with the hospital.
Associated devices and logos with advertisements and advertising structures	

Criteria	Assessment
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	The proposed signs incorporate the branding and logo of the Local Health District to help users identify the site.
Illumination	
Would illumination result in unacceptable glare?	The proposed illuminated fixed signs are well removed from the site's property boundaries. They will not cause unacceptable glare.
Would illumination affect safety for pedestrians, vehicles or aircraft?	The illumination of the proposed fixed signs will be controlled so as to not affect pedestrian, vehicle or aircraft safety. Indeed, the illumination of the proposed emergency sign will promote safety by helping users identify and locate the emergency department.
Would illumination detract from the amenity of any residence or other form of accommodation?	The proposed illuminated fixed signs are well removed from nearby residences to preserve their night-time amenity.
Can the intensity of the illumination be adjusted, if necessary?	Yes
Is the illumination subject to a curfew?	No
Safety	
Would the proposal reduce the safety for any public road?	No, the proposed signage has been designed and positioned to assist motorists, pedestrians and cyclists in identifying the hospital without compromising the safety of surrounding roads.
Would the proposal reduce the safety for pedestrians or bicyclists?	
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	No, the signage is positioned to avoid obstructing sightlines from existing public roads.

4.6 Strategic Plans

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

Table 12: Summary of consistency with relevant Strategic Planning documents

Strategic Plan	Assessment	Relevant? Yes/No
Hunter Regional Plan 2036	The Hunter Region Plan 2036 (**Region Plan**) was released in October 2016 and is the NSW Government's approach to guiding land use planning decisions for the Hunter Region for the next 20 years. The plan acknowledges that infrastructure investment is the linchpin of economic development across the Hunter and that many areas have benefitted from emerging job opportunities in the health sector. The proposed development will contribute to employment opportunities within the Cessnock area, whilst also providing healthcare infrastructure for the ageing and growing local community.	Yes
Greater Newcastle Metropolitan Plan 2036	The Greater Newcastle Metropolitan Plan 2036 (**GNMP**) sets out strategies and actions that will lead to sustainable growth across Cessnock City, Lake Macquarie City and Maitland City. The proposed activity directly correlates with the objectives of Strategy 4 'Grow health precincts and connect the health network', which seeks to locate additional health related projects within existing major health precincts. The proposed activity will contribute to improving the Cessnock Hospital campus as a stronger part of the network of health services and infrastructure throughout the Greater Newcastle region.	Yes

Strategic Plan	Assessment	Relevant? Yes/No
Cessnock Local Strategic Planning Statement	The Cessnock Local Strategic Planning Statement (**Cessnock LSPS**) sets out the 20-year vision for land use in the local area. It sets out the special character and values that are to be preserved and how change will be managed into the future. The proposed activity aligns with planning priority 5, which seeks to create infrastructure and services that meet the needs of the community and are appropriately funded. The proposed activity is also consistent with planning priority 4, which seeks to keep the community safe, healthy and active. Subsequently, the proposed activity will directly contribute to the vision summarised within the Cessnock LSPS, as the new health facility will provide contemporary healthcare facilities to meet the health care services demands of the growing local and regional communities throughout the broader Cessnock locality.	Yes

5. Consultation

5.1 Statutory Consultation

The REF scope of works was exhibited to the following stakeholders outlined in **Table 13** for a total of 28 calendar days.

Table 13: Stakeholders required to be notified

Stakeholder	Relevant Section
Cessnock Council	• Section 2.62(2)(a)(i) – Notification of carrying out of certain development without consent • Sections 2.10(1)(a), (c), (d) and (f) – Development with impacts on Council-related infrastructure and services
Occupiers of adjoining land	• Section 2.62(2)(a)(ii) – Notification of carrying out of certain development without consent

REF Notification

Consultation was undertaken having regard to the SCPP—new health services facilities and schools and the community participation plan. This included:

- sending notices to adjoining neighbours, owners and occupiers inviting comments within 28 days
- sending notices to the local council and relevant state and commonwealth government agencies and service providers inviting comments within 21 days
- making the REF publicly available on the Planning Portal throughout the consultation period.

The notification commenced on 20th January 2025 and concluded on 17th February 2025. Copies of these notification letters are included at **Appendix LL**.

A total of 31 submissions were received, from Cessnock City Council, Transport for NSW (TfNSW), as well as surrounding landowners. Responses to each of these submissions are provided in the Response to Submissions (RTS) Letter provided at **Appendix KK.** The responses satisfactorily address matters raised in submissions and the project remains without significant impact.

5.2 Community and Stakeholder Engagement

As part of the design development process, the project team engaged broadly with stakeholders, consumers, staff, residents and community members, including Connecting with Country Working Groups. An overview of the comments received are outlined and responded to in the table below.

Table 14: Issues raised and responses

Issue raised	Response
Staff and Community Project Information and Consultation Sessions	
Car parking and traffic impacts	The proposal includes parking for staff and the public and the redevelopment will also include a dedicated pickup and drop off point. Upon completion of the development there will be 250 parking spaces provided on the campus which will accommodate the expected parking demand. The proposal is expected to increase the current on-site traffic, however observations of the surrounding road network indicate there is spare capacity to accommodate the minor increase. Further details regarding traffic and parking are provided in **Appendix T**.
Ensuring consultation with staff on design	As part of the community and stakeholder engagement process the staff of the hospital were consulted and given the opportunity to have their say on the design of the proposal. Further details of this engagement is provided in **Appendix CC**.
Hospital services – requests for additional services (in particular operating theatres and maternity/birthing services), and ensuring that the redevelopment will be sufficient to sustain the growing population over time	The genesis of the Project is to ensure that the growing population of Cessnock can be cared for in a modern health services facility. The new clinical services building will be adequately staffed to ensure that patient needs are catered for.

Issue raised	Response
Staffing – seeking reassurance that the new facility will be adequately staffed 24/7 by an appropriate medical workforce.	

Appendix CC provides an overview of the project teams' non-statutory consultation activities.

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)* and *Consideration of environmental factors for health services facilities and schools, dated October 2024* apply to the activity. The relevant assessment considerations under Section 3 of these Guidelines are provided in **Table 15** below:

Table 15: Summary of Environmental Factors Reviewed in Relation to the Activity

Relevant Consideration	Response/Assessment		
Factors listed in the Guidelines for Division 5.1 Assessments			
(a) Any environmental impact on a community	The Proposal's likely environmental impacts on the community are limited to construction and operational-related noise, traffic and parking, heritage and contamination impacts. As described in **Section 6.2,** these impacts are readily managed through the Preliminary Construction Management Plan (**Appendix II**) and the issue-specific mitigation measures outlined in **Appendix B**. Overall, the Proposal will have long term community benefits by delivering much needed new clinical services to improve outcomes for patients and staff alike. The Proposal will also deliver the following positive environmental impacts: • The design and massing of the clinical services building will complement the character of the surrounding area and its positioning on site, which incorporates extensive landscaped setbacks to all property boundaries, also provides visual privacy for occupiers of adjoining land; • The Proposal will increase the site's canopy coverage from 3.04% to 30.77% delivering significantly improved environmental outcomes, such as increased habitat for local fauna and pollution absorption; and • The new clinical services building will incorporate 'best practice' ESD initiatives.	-ve	
		Nil	
		+ve	✓
(b) Any transformation of a locality	The proposal will provide a well-designed building within a thoughtful landscaped site that seeks to significantly enhance the therapeutic environment, contributing to improved patient outcomes and a more supportive healing experience.	-ve	
		Nil	
		+ve	✓
(c) Any environmental impact on the ecosystems of the locality	The Proposal is not likely to result in a significant impact to any threatened species, ecological communities, or their habitats listed under the *Biodiversity Act 2016* or the *Environment Protection and Biodiversity Conservation Act 1999*.	-ve	
		Nil	✓
		+ve	
(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	The Proposal provides a new hospital on an existing health services site that will deliver an improved aesthetic, recreational, scientific and environmental outcome for the locality for the following reasons: • The Proposal incorporates landscaped outdoor areas for the recreational enjoyment of patients and other site users. • The new facility will transform the delivery of healthcare for the Cessnock community, delivering high-quality, contemporary and accessible care close to home. • The new hospital will incorporate a range of ESD initiatives to provide a sustainable facility for the community.	-ve	
		Nil	
		+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	As discussed above, the Proposal will not impact on the site's heritage significance, the proposal will deliver an improved aesthetic, architectural and scientific outcome for the community. The site will retain its heritage significance as well as its social significance to the community as a location for health services.	-ve	
		Nil	
		+ve	✓

Relevant Consideration		Response/Assessment		
Factors listed in the Guidelines for Division 5.1 Assessments				
(f)	Any impact on the habitat of protected animals (within the meaning of the *Biodiversity Conservation Act 2016)*	The Biodiversity Development Assessment Report (**Appendix K**) that accompanies the REF concludes that the Proposal is not likely to result in a significant impact to any threatened species, ecological communities, or their habitats listed under the *Biodiversity Act 2016* or the *Environment Protection and Biodiversity Conservation Act 1999* (see **Section 6.2.9**).	-ve	
			Nil	✓
			+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		-ve	
			Nil	✓
			+ve	
(h)	Any long-term effects on the environment	The Proposal will not have any long-term effects on the biophysical environment.	-ve	
			Nil	✓
			+ve	
(i)	Any degradation of the quality of the environment	The Proposal will not degrade the environment and, as noted, the Proposal is not likely to result in a significant impact to any threatened species, ecological communities, or their habitats listed under the *Biodiversity Act 2016* or the *Environment Protection and Biodiversity Conservation Act 1999.* The proposed removal of trees will be compensated through the planting of new trees. Mitigation measures will also be implemented during the site preparation works to prevent the derogation of the quality of the environment (refer to **Appendix B**).	-ve	
			Nil	✓
			+ve	
(j)	Any risk to the safety of the environment	The REF is accompanied by a Detailed Site Investigation (**Appendix FF**) and Remediation Action Plan (**Appendix GG**) that outline the measures to safely manage, treat and dispose hazardous and contaminated material at the site. Further discussion is also provided below in **Section 6.2.14**.	-ve	
			Nil	✓
			+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. Instead, the Proposal will enhance the site's existing use as a health services facility.	-ve	
			Nil	
			+ve	✓
(l)	Any pollution of the environment	Minor localised air quality impacts during demolition and construction works are suitably addressed and will be mitigated through the Construction Management Plan and its anticipated correlated management plans. No further polluting impacts are likely to result from the works.	-ve	
			Nil	✓
			+ve	
(m)	Any environmental problems associated with the disposal of waste	The REF is accompanied by both a Construction and Operational Waste Management Plan (respectively) that outlines measures to appropriately classify and either reuse, recycle, process or dispose of waste. Appropriate waste disposal facilities shall be provided in strategic locations onsite. Waste bins shall be located such that they do not affect the community and not close to surrounding premises. Waste disposal facilities shall be regularly collected or emptied by a licensed waste collector. Hazardous waste will be managed and disposed of as per the Safety Data Sheet requirements and *Environmental Protection (Controlled Waste) Regulations 2004*.	-ve	
			Nil	✓
			+ve	
(n)	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	Essential services will service the new hospital, and its construction is not anticipated to impact demand for scarce resources significantly. Indeed, the Proposal will seek to maximise the reuse or processing/recycling of demolished materials.	-ve	
			Nil	✓
			+ve	
(o)	Any cumulative environmental effects with other existing or likely future activities	The works are located within the existing Cessnock Hospital campus. Any cumulative impact will be minimal and short-lived owing to the temporary nature of construction works. It is not considered that there would be any impact during operation. Indeed, the facility will benefit from service adjacencies and support the creation of an integrated health campus that serves the changing and growing demands of the local and regional communities.	-ve	
			Nil	✓
			+ve	
			-ve	

Relevant Consideration		Response/Assessment		
Factors listed in the Guidelines for Division 5.1 Assessments				
(p)	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	Given the site's inland location, the works will have no impact on coastal processes or contribute to coastal hazards.	Nil +ve	✓
(q)	Applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act	As discussed above, the following local strategic planning statement and regional and district plan apply to the site: • Hunter Regional Plan 2036 • Greater Newcastle Metropolitan Plan 2036 • Cessnock Local Strategic Planning Statement The Proposal is consistent with the above strategic plans as it will deliver much needed new health facilities in Cessnock that will: • Deliver complementary health services around existing health facilities to meet the health care services demands of the growing local and ageing community; and • Providing additional employment opportunities to meet strategic targets.	-ve Nil +ve	 ✓
(r)	Any other relevant environmental factors	As identified in the sections below, there are no other environmental factors that will result in any unacceptable impact on the environment.	-ve Nil +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?	✓	
Will the works disrupt access to private properties?		✓
Are there likely to be any difficulties associated with site access?		✓
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)?	✓	
Will full or partial road closures be required?	✓	
Will the proposal result in a change to onsite car parking?	✓	
Is there onsite parking for construction workers?	✓	

The REF is accompanied by a Traffic and Parking Impact Assessment (TIA) prepared by Stantec (**Appendix T**) that assesses the proposed activity's impact on parking, site access, pedestrian movements, as well as intersection performance and traffic generation on the surrounding local street network.

Operational Parking Impacts

The TIA includes a parking demand assessment that evaluates the required number of staff and visitor parking spaces to serve the redeveloped facility based upon the parking rates specified within the *Cessnock Development Control Plan 2010* and the *Transport for NSW Guide to Traffic Generating Developments 2002,* together with the anticipated operational requirements.

Stantec notes that a total of 158 to 190 parking spaces would be required on site, which has been calculated upon an analysis of the site's existing operations and the existing parking demand rates. A total of 250 parking spaces will be available on the campus at the completion of the redevelopment, and therefore accommodates the expected parking demand on site for the development.

Further, the TIA also confirms that the ten (10) accessible parking spaces exceed the requirements of the National Construction Code (**NCC**), Volume One 2022 Amendment 1.

The parking supply will incorporate provision for up to 20 EV chargers on the site with 10 to be provided by the redevelopment to service the LHD fleet.

Site Access and Internal Circulation

As aforementioned, the hospital's main entry will relocate from View Street to Jurd Street as part of the redevelopment with drop off and pick up occurring along the building frontage and adjacent short term angle parking. For longer stay parking visitors would proceed to the combined staff and public parking area on the western side of the site. The following is also noted:

- Ambulance access will also occur from Jurd Street to a dedicated ambulance bay area adjacent to the new Emergency Department (ED).
- Parking for outpatient and community health services will remain as is and accessed from Foster Street.
- A dedicated loading/ service area will be provided with access to and from Foster Street.

Further, in relation to public transport, Stantec notes that public transport servicing the site is limited, with the 161 bus route being the only service providing direct connection to the existing hospital bus stop on View Street.

As part of the redevelopment of the hospital the new front entry will be via Jurd Street and not on View Street, therefore it is recommended that the existing 161 bus route be redirected via Jurd Street, as shown in **Figure 13**. This adjustment will ensure that public transport users have easy and direct access to the hospital, reducing the need for long walks or transfers.

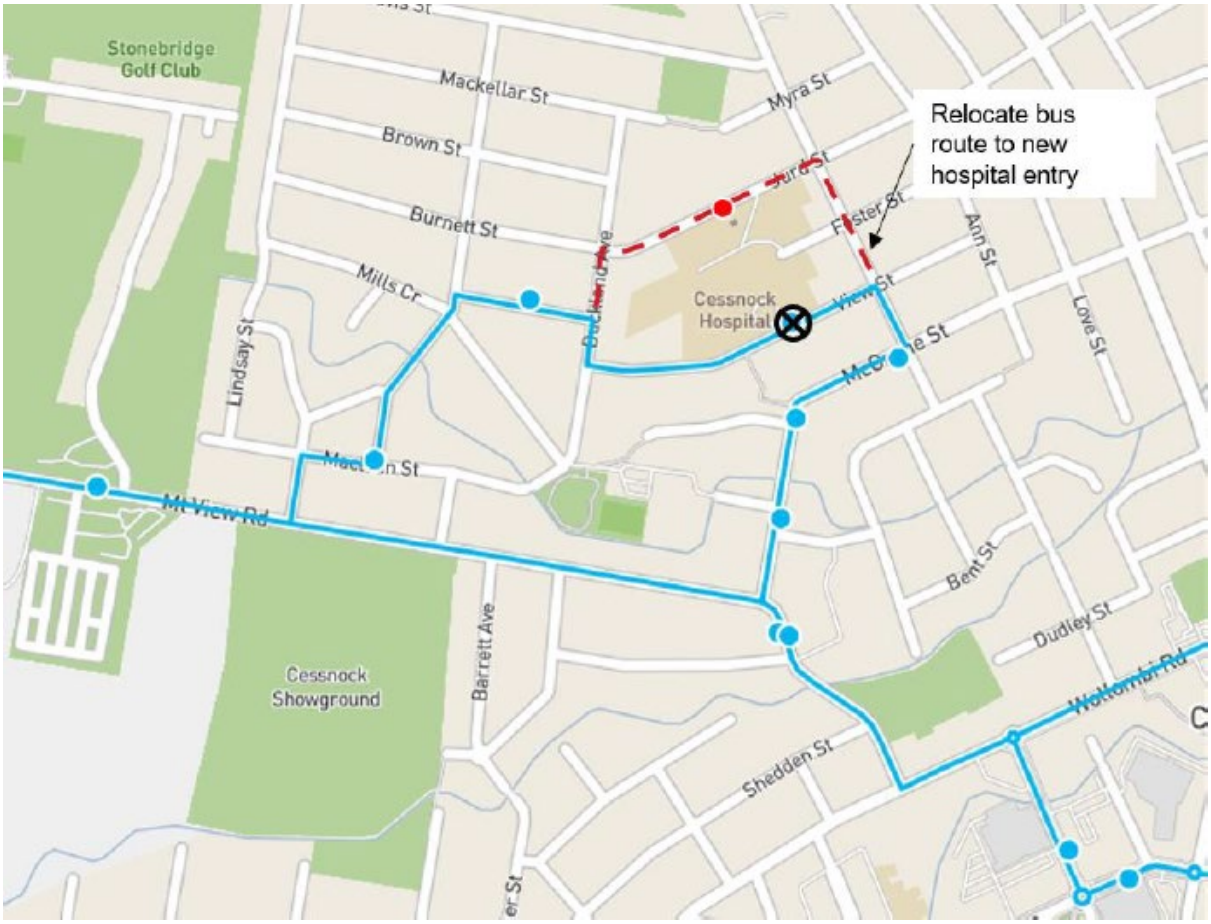


Figure 13 Proposed Bus Route / Stop Location

Source: Stantec

As bus routes are the responsibility of TfNSW and the local bus operator, consultation will be required prior to the opening of the new hospital entry to facilitate this bus service change. For clarity, the delivery of a new bus stop on Jurd Street does not form part of this REF, as this will be subject to further consultation with TfNSW.

Traffic Impacts

Traffic generation impacts have been considered in anticipation of 73 beds and 151 staff (approximately at peak shift changeover by 2031). The Assessment estimates that the proposed activity will result in a net increase of 18 vehicular trips during peak hour. Further, Stantec notes that based on the main entrance moving to Jurd Street and the location of parking within the site there is expected to be a redistribution of traffic from what is currently occurring, with Jurd Street accounting for 70% of vehicular movements (57 vehicles per hour).

The Report notes that observations of the surrounding road network indicate there is spare capacity to accommodate the additional 18 vehicles in the peak hour and the redistribution of existing trips around the site with the new main entrance being from Jurd Street.

Construction Traffic Management

A Preliminary Construction Traffic and Pedestrian Management Plan (**Preliminary CTPMP**) has been included as part of the broader Transport Assessment prepared by Stantec.

It is anticipated that up to 100 workers will be present on-site per day across the duration of the main works construction activities. Stantec notes that the existing on-site parking supply can satisfactorily accommodate construction worker parking. Should peak construction activity and the number of construction workers exceed expectations, on-street parking is also available. Any such temporary use of on-street parking would have a minor impact and is considered satisfactory.

It is expected that the peak construction vehicle activity and will result in up to 20 trucks (40 two-way movements) in and out of the site per day. These movements are expected to be spread throughout the day and therefore a conservative 20 per cent is assumed to occur within the peak hours. The Preliminary CTPMP notes that the additional construction vehicles are considered minor in the context of overall road network activity and unlikely to have any material impact on the surrounding road network.

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)?	✓	
Will any receivers be affected by noise for greater than three weeks?	✓	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?	✓	
Will the works be undertaken outside of standard working hours? That is: • Monday - Friday: 7am to 6pm; • Saturday: 8am to 1pm; • Sunday and public holidays: no work.		✓
Will the works result in vibration being experienced by any surrounding properties or infrastructure?	To be monitored.	
Are there any impacts to the operation of helipads on the activity site?		✓

A Noise and Vibration Impact Assessment has been prepared by JHA and is provided at **Appendix V,** which includes an assessment of the noise and vibration impacts associated with the construction and operational phases of the proposed activity. An overview of these assessments is provided below.

Existing Environment & Relevant Noise Criteria

Initially, JHA has identified a number of sensitive receivers in the surrounding environment, which a summary of these receivers is shown in **Table 16** and **Figure 14** below. Due to the number of receivers surrounding the site, they have been grouped into Noise Catchment Areas (NCAs) with the receiver nearest to the site considered for the impact noise assessment.

Table 16: Nearest sensitive receivers

NCA ID	Sensitive Receiver Address	Receiver Type	Approx. Distance, m
1	36, 38, 40, 42 & 44 Buckland Avenue 18, 20, 22, 24, 26 & 28 Jurd Street	Residential	20
2	15 Jurd Street 20, 20A & 22 Foster Street	Residential	50
3	15 Foster Street 3 & 5 Leonard 16, 18, 20 & 22 View Street	Residential	60
4	19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41 & 43 View Street	Residential	150
5	34, 36, 38, 40, 42, 44 & 46 View Street	Residential	80
6	18, 20, 22, 24, 26, 28 & 30 Buckland Avenue	Residential	110
7	41 Jurd Street	Commercial	30

Source: JHA

Figure 14 Nearest noise sensitive receivers surrounding the site

Source: JHA

Operational Noise Impacts

JHA have assessed the operational noise impact in accordance with the NSW EPA *Noise Policy for Industry* (EPA, 2017). The Report identifies the following noise generating activities associated with the proposed new clinical services building:

- Building services plant and emergency generator noise emissions
- Vehicle movements, including general traffic as well as ambulance movements.

Building Services Plant and Emergency Generators

At this stage, JHA notes that building services plant selections have not been made; therefore, it is not possible to undertake a detailed assessment of the building services plant noise emissions. However, a preliminary assessment has been carried out for the building services plant within the proposed services area.

It is understood that the building services will be located on Level 2 in the roof undercroft. Considering the distance from the proposed location of the building services to the nearest noise sensitive receivers, the worst-case scenario has been deemed to be the residential receivers to the North, along Jurd Street. The approximate distance from the undercroft service area to the boundary of the most affected noise sensitive receiver is 40m. Therefore, the maximum allowable cumulative noise emission levels from the services block have been predicted to be 67dB(A) at 1m from the services roof undercroft.

As such, detailed plant selection has not been undertaken at this stage and should be undertaken at Design Development stage to determine suitable acoustic treatments to control noise emissions. Satisfactory levels will be achievable through appropriate plant selection and location and, if necessary, standard acoustic treatments such as duct lining, acoustic silencers and enclosures.

Vehicle Movements

The potential noise sources associated with the vehicles includes the following:

- Noise generated by vehicle movements, particularly ambulances movements for emergencies during night-time.
- Noise generated by the use of ambulance sirens.
- Noise generated from increased traffic flows associated with the redevelopment.

With regards to general vehicular traffic, the estimated additional traffic generation is expected to be minor, with the number of trips during the peak hour expected to increase from 64 vehicles per hour to 82 vehicles per hour. Based on this estimated increase in traffic volume, traffic noise levels are expected to increase by less than 2dB, therefore, traffic noise levels are expected to meet the NSW Road Noise Policy recommendations.

Regarding ambulances, JHA notes that the maximum sound power level of a departing ambulance is 86-91dB(A). With this in mind, a sleep arousal assessment has been prepared by JHA and is shown below in **Figure 15.**

Calculation	Ambulance Departure
L_{Aeq} at 1 m	77
Distance attenuation, dB	-27
Duration correction, dB	-15
$L_{Aeq,15min}$ resulting at residential receiver	**35**
NPI Sleep Arousal Night-time / Complies?	**40** / Yes

Sleep arousal noise assessment at residential receiver for ambulance departure during night-time. Condition 1.

Calculation	Ambulance Departure
L_{Amax} at 1 m	83
Distance attenuation, dB	-27
L_{Amax} resulting at residential receiver	**56**
NPI Sleep Arousal Night-time / Complies?	**52** / No

Sleep arousal noise assessment at residential receiver for ambulance departure during night-time. Condition 2.

Figure 15 Sleep arousal noise assessment for ambulance movements at residential receivers

Source: JHA

Based on the assessment above, the predicted cumulative LAeq,15min noise level is expected to comply with the Condition 1 of the *Noise Policy for Industry* Sleep Arousal Criteria during the night-time period.

The predicted LAmax noise level at the nearest residential receiver façade exceeds the Condition 2 NPI Sleep Arousal Criteria by 4dB(A). Notwithstanding, the Report notes that it is generally accepted that internal noise levels in a dwelling with the windows open are 10dB lower than external noise levels – being opened sufficiently to provide adequate ventilation. Based on this, predicted noise levels within the residential receiver with windows opened are equivalent to 46dB(A) for ambulance movements.

Based on guidance from the NSW Road Noise Policy, maximum internal noise levels below 50-55dB(A) are unlikely to cause awakening reactions. Therefore, the Report confirms that noise levels are unlikely to affect the health and wellbeing of occupants significantly.

Regarding the use of ambulance sirens on site, JHA notes the following:

- When ambulances travel to attend incidents, it is not specifically addressed in any relevant noise regulations. When in use, noise levels from ambulance sirens will be audible at the nearest residential receivers.
- Ambulance drivers will make a judgement call on whether to use ambulance sirens on case-by-case basis. It is understood that it is the practice of Paramedics to minimise the use of sirens when it will cause a noise disturbance, and the sirens are deemed unnecessary.

Construction Noise Impacts

Currently, the construction methodologies, staging and plant are unknown as the Contractor has not yet been engaged. Therefore, it is not possible to accurately assess construction noise impacts to the nearby noise sensitive receivers. In lieu of this, JHA has provided preliminary advice in relation to construction noise and vibration management to form the basis for the Contractor's Construction Noise and Vibration Management Plan.

The recommended standard hours for construction, as proposed in the Interim Construction Noise Guideline (**ICNG**), are:

- Monday to Friday 7:00am to 6:00pm.
- Saturday 8:00am to 1:00pm.
- No work on Sundays and Public Holidays.

Construction work will be undertaken during the standard construction hours.

Based on the results of the preliminary assessment the construction works – without noise control measures – is expected to exceed the noise limits for highly noise affected receivers within standard hours. This assessment is based on typical noise levels associated with construction sites and machinery. This can be seen below in **Figure 16.**

Item	Typical Power Noise Level L_{A10} (dB ref 1pW)	Typical Noise Level $L_{A10,15m}$ at 7m (dB ref 20μPa)	Predicted Noise Level $L_{Aeq,15m}$ Worst case Residential receiver (NCAs 2, 5 & 6)	Complies with Highly Noise Affected Criteria
Angle grinders	104	76	77 – 82	No
Truck (>20 tonne)	108	80	81 – 86	No
Circular saw	115	87	88 – 93	No
Piling rig	120	92	93 – 98	No
10-40tn Excavator	117	89	90 – 95	No
40-50tn Mobile crane	111	83	84 – 89	No
Concrete pump	114	86	87 – 92	No
Concrete truck	110	82	83 – 88	No
Drill	94	66	67 – 72	Yes

Figure 16 Anticipated airborne noise levels for construction equipment / plant used during construction works.

Source: JHA

The exceedance of the noise levels for the nearby residential receivers is not unusual given the heavy plant and equipment that must be used, and the proximity to sensitive receivers. Notwithstanding, construction works are temporary in nature. Where the predicted noise level is predicted to exceed the relevant requirements, all feasible and reasonable work practices would be applied. A detailed Construction Noise & Vibration Management Plan will be prepared by a qualified acoustic consultant prior to a Construction Certificate being issued, which will outline a range of mitigation measures relating to construction noise such as acoustic screening around the site.

JHA notes that compliance with the relevant construction noise criteria can be achieved through these specific noise mitigation measures.

Construction Vibration Impacts

It is anticipated that the highest levels of vibration are likely to be perceivable during excavation works, and JHA identifies a number of plant items that could potentially be utilised during this stage of works that have can result in vibration impacts. For any of this equipment that is expected to be used within close proximity of the minimum distances described in **Appendix V**, the contractor must engage a qualified engineer to carry out a vibration survey in order to assess any potential risks. The vibration survey and assessment will determine whether the vibration levels

might exceed the relevant criteria, and if this is the case, then further mitigation measures will be put in place to ensure vibration impacts are minimized as far possible.

Once the final vibratory plant has been selected, a review of minimum offset distances should be conducted, and any plant selections amended for certain works as part of the detailed Construction Noise and Vibration Management Plan, to be prepared by the Contractor prior to construction works commencing.

Summary

Overall, it is considered that the proposed activity is able to achieve all relevant noise and vibration requirements through the successful implementation of the recommendations in **Appendix B.**

6.2.3 Air Quality and Energy

Questions to consider	Yes	No
Could the works result in dust generation?	✓	
Could the works generate odours (during construction or operation)?	✓	
Will the works involve the use of fuel-driven heavy machinery or equipment?	✓	
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?	✓	

A Preliminary Construction Management Plan (**PCMP**) has been prepared by Turner & Townsend (**Appendix II**) to identify the measures required for the environmental management of noise, dust, and odour. Before the commencement of works, the Contractor will prepare a comprehensive Environmental Management Plan (**EMP**) to ensure compliance with all statutory requirements as well as NSW Health Infrastructure's requirements.

Such precautions may include water spraying and regular servicing of all plant and machinery. Further mitigation measures are included in the summary of mitigation measures at **Appendix B**.

6.2.4 Soils and Geology

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

A Geotechnical Report has been prepared by JK Geotechnics and is included at **Appendix W**. The Report identifies that the ground conditions of the site comprised of shallow to moderately deep fill over residual clay soils, with bedrock at predominately shallow to moderate depths. Groundwater was only encountered in a select few boreholes but was considered to be perched water seepage rather than the groundwater table.

JK Geotechnics notes the following in relation to the subterranean conditions of the site:

- The existing fill is considered to be 'uncontrolled' and is not suitable to support footings or floor slabs. Where the fill is not removed as part of the earthworks, footings will need to be founded below the fill and within the natural clays or weathered rock, with floor slabs designed as a fully suspended slabs.
- Excavation of soils and bedrock up to very low strength will be achievable using conventional excavation equipment, such as the buckets of hydraulic excavators.

- Due to reactive soils, a fully suspended floor slab will be adopted and therefore no particular subgrade preparation would be required, but any vegetation, root affected soils or deleterious fill material should be stripped.
- JK Geotechnics does not expect any excavations to encounter the groundwater table, but seepage will likely be encountered along the soil-rock interface and through defects in the bedrock. However, the subsurface profile is of low permeability and therefore any seepage encountered should be easily managed by either gravity or sump and pump drainage systems.

A number of recommendations and mitigation measures have been made prior to excavation works, which are detailed in **Appendix B**.

6.2.5 Coastal risks

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

Given the site's inland location, the works will have no impact on coastal processes or contribute to coastal hazards.

6.2.6 Hydrology, Flooding and Water Quality

Questions to consider	Yes	No
Are the works located near a natural watercourse?		✓
Are the works within a Sydney Drinking Water Catchment?		✓
Are the works located within or near a floodplain?		✓
Will the works intercept groundwater?	✓	
Will a licence under the *Water Act 1912* or the *Water Management Act 2000* be required?		✓
Has stormwater management been adequately addressed?	✓	

Flooding

A Flood Impact Assessment has been prepared by Enstruct and is included at **Appendix JJ**. The report confirms that the site is located on a crest and therefore, riverine flooding is not a risk. Further to this, in accordance with Council's flood mapping, the site is entirely outside of the nominated PMF flood extent. Given that the site adjacent on Jurd Street (to the North) is impacted by flooding, there is the potential for overland flow impacts, however Enstruct notes that the proposed minimum building floor level at RL82.40m AHD provides a freeboard of approximately 1.95m metres to the PMF level. As such, the report concludes that no further flood assessment is deemed necessary.

Stormwater

A Civil Design Report has been prepared by Enstruct and is included at **Appendix O**. It is noted that the existing stormwater management system on the site consist of downpipes, grated drains, and some stormwater pits. In light of the proposed activity, an approximately 260m^3 OSD tank will be delivered on the site, which will have a double outlet formation with a 203mm diameter orifice to service all flows up to the 50% AEP storm event, and a 450mm diameter pipe outlet to service all other storms up to the 1% AEP storm event. DRAINS Modelling contained within **Appendix O** confirms that the post-development flows do not exceed the pre-development flows through the introduction of the OSD system.

As such, the additional OSD ensures that the site will not discharge any additional stormwater runoff, therefore not impacting on capacity of downstream open channels, pits and pipes, and natural watercourses.

Further to this, MUSIC Modelling has also been conducted which confirms that pollutant reduction measures will ensure that the reduction targets contained within Greenstar will be achieved by the proposed activity. These measures include:

- Six (6) 690mm Storm Filter cartridges within a 5m2 chamber within the OSD Tank,

- At least seven (7) Ocean Protect Ocean Guard pit inserts, and
- A 15m2 Ocean Protect Filterra bio-filtration pond.

Mitigation measures to reduce those impacts within the design, construction and operational phases of the development are set out in **Appendix B**.

Groundwater

The Geotechnical Report prepared by JK Geotechnics (**Appendix W**) installed groundwater monitoring wells into three (3) boreholes. Groundwater was only encountered in a select few boreholes but was considered to be perched water seepage rather than the groundwater table.

6.2.7 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?	✓	
Will the works be visible from the public domain?	✓	
Are the works located in areas of high scenic value?		✓
Will the works involve night work requiring lighting?		✓

Visual Impact

The proposed activity will be carried out within the boundaries of an existing hospital campus, however, given that the portion of the site to be built on is currently devoid of any major vegetation or existing development, the works will be visible from nearby residential properties and the public domain, particularly along Jurd Street.

The Architectural Design Report prepared by Fitzpatrick + Partners (**Appendix D**) includes photomontages illustrating the new building's visual prominence from two (2) key vantage points along Jurd Street. These are shown below in **Figure 17** and **Figure 18**.

Figure 17 Existing vs Proposed Jurd Street View, facing West

Source: Fitzpatrick & Partners

Figure 18 Existing vs Proposed Jurd Street View, facing East

Source: Fitzpatrick & Partners

The proposed clinical services building is approximately 13m in height, which is a modest addition to the site given its existing Hospital use, and it is also noted that the existing site conditions (particularly in the northern portion of the site) are poor and do not offer any visually aesthetic value for nearby residents or passers-by. As such, the proposed activity represents an opportunity to deliver a superior outcome for this portion of the site, through a considered architectural form as well as a generous complementary landscaping scheme.

In any case, it is noted that the building is significantly set back from the public domain areas and does not present as visually obtrusive when viewed from the surrounding streets. It is considered that the proposed activity will revitalise the site through the provision of a high-quality and visually pleasing clinical services building that is consistent with the character of the hospital campus, with ample landscaping and open space areas that promotes a holistic approach to wellbeing and recovery.

With consideration of the points noted above, it is determined that the proposed new clinical services building is appropriate to the local context and does not result in any adverse visual impacts for the neighbouring properties.

Further, it is noted that there are no notable visual privacy impacts arising from the proposed activity.

Lighting

With respect to potential lighting impacts, the Electrical Services Design Statement prepared by JHA (refer **Appendix R**) confirms that Exterior lighting will be provided in accordance with NSW Health's policy manual, Protecting People and Property (NSW PP&P), as well as AS/NZS 1158.3.1, AS/NZS 4282 and AS4485.1.

Careful consideration will be given to not only neighbouring sites but also existing buildings and infrastructure internal to the Campus in order to establish an overall lighting design and aesthetic that minimises glare and undesirable illumination levels to surrounding sensitive receivers. Where necessary, mitigation measures relating to external lighting have been included in **Appendix B**.

6.2.8 Aboriginal Heritage

Questions to consider	Yes	No
Will the activity disturb the ground surface or any culturally modified trees?	✓	
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)?		✓
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)?		✓
Will the works occur in the location of one or more of these landscape features and is on land not previously disturbed? • 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? Note 21	✓	
If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?	✓	
Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?		✓
Is the activity likely to affect the cultural value or significance of the site?		✓

An Aboriginal Cultural Heritage Assessment Report (**ACHAR**) has been prepared by Biosis and provided at **Appendix G**. This Report has been prepared in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010) (consultation requirements). An Aboriginal Heritage Information Management System (AHIMS) search (refer **Appendix F**) has also been undertaken of the site with a buffer of 1km around the site, which identified 11 Aboriginal archaeological sites within a 1km search area.

An archaeological survey of the study area was undertaken on site. High levels of disturbance were noted throughout the study area due to the historic and modern development. No new Aboriginal objects or areas of archaeological potential were identified within the study area due to the high levels of disturbance present that will have disturbed potential Aboriginal sites.

Based on the results of the ACHAR, Biosis have determined that the risk of impacting any objects of significance is low, however have still recommended a number of mitigation measures which are detailed in **Appendix B**. An Aboriginal Heritage Impact Permit (**AHIP**) is not deemed necessary as impacts can be avoided through design measures and the unexpected finds procedure.

6.2.9 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? • NSW heritage database (includes Section 170 and local items);	✓	

Questions to consider	Yes	No
• Commonwealth EPBC heritage list.		
Will works occur in areas that may have archaeological remains?	✓	
Is the demolition of any heritage occurring?	✓	

Built Heritage

A Statement of Heritage Impact has been prepared by Umwelt and is provided at **Appendix H,** which provides an assessment of the proposed activity's impacts on the heritage significance of the site as well as any other heritage items in the vicinity. In doing this, Umwelt has referred to the guidelines set out in the Australia ICOMOS Charter for Places of Cultural Significance, 2013, known as The Burra Charter, and the Heritage NSW publication, the NSW Heritage Manual.

As aforementioned, Cessnock Hospital is listed as an item of local heritage significance under the Cessnock LEP (Item No. I54). Principally, this listing is related to the original Hospital building which retains a similar shape to its original Federation period state, as well as the View Street fence structure immediately in front of this building. However, Umwelt also notes that the original building retains no original fixtures, fittings and negligible identifiers of its original period and operation. As such, Umwelt considers that the original building has no aesthetic significance. A number of other buildings located throughout the site are also noted to contain fabric of moderate heritage significance, although are not considered to directly contribute to the site's heritage listing.

The Report makes the following conclusions regarding the proposed activity's impacts on the site's heritage significance:

- The proposed activity retains the buildings, structures and spaces of high significance and most buildings of moderate heritage significance.
- Whilst the removal of the mortuary building would cause the loss of a building with moderate heritage significance, this impact could be ameliorated with a photographic archival recording of this small building.
- No physical impact will be made with the southern portion of the site that exhibits the most heritage significance. Principally, the key items exhibiting heritage value, being the original Hospital building as well as the View Street fence are not physically altered as part of the proposed activity, noting their location at the opposite site boundary.
- The new building has been carefully located in the northern portion of the site where the lowest concentration of structures with heritage significance lies. In doing this, the proposed clinical services building will be visually separated from the buildings exhibiting heritage value and will not visually dominate them in a manner that undermines their significance.
- The proposed demolition of three (3) particular buildings (being the Sheds and some Service Buildings) across the site would cause the loss of minor service buildings from the post-war period that have little heritage significance. The removal of these buildings would cause little adverse impact on the heritage significance of the site.
- The site is not adjacent to any other heritage items. The nearest heritage item is at 41 McGrane Street, which is a Federation house that is out of sight from the current Hospital. As such, there will be no impact on this heritage item.

As such, Umwelt determines that the proposed activity will not have a significant adverse impact on the heritage significance of the site. A range of mitigation measures relating to heritage have also been provided within **Appendix B.**

Archaeology

An Archaeological Report prepared by Biosis is provided at **Appendix KK**. The report has been prepared to document the findings of the archaeological investigations conducted as part of the ACHAR. Although the original survey of the site demonstrated that the study area has been subject to significant levels of disturbance, one area of moderate archaeological potential was identified. However, upon test excavations being conducted by Biosis, this area was revised from moderate to low potential in light of no Aboriginal artefacts being present.

Accordingly, Biosis concludes that based upon the observations made during the field investigation and the results of the archaeological test excavations it is evident that the study area has been disturbed due to the previous

construction works associated with the development of the site. Due to this, no further investigation of the study area is warranted, as the study area holds low archaeological potential.

A number of mitigation measures including an unexpected finds protocol have been included in **Appendix B**, in any case.

6.2.10 Ecology

Questions to consider	Yes	No
Could the works affect any *Environmental Protection and Biodiversity Conservation Act 1999 (Cth)* listed threatened species, ecological community or migratory species?		✓
Is it likely that the activity will have a significant impact in accordance with the *Biodiversity Conservation Act 2016* (BC Act)? 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: • 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.		✓
Could the works affect a National Park or reserve administered by EES?		✓
Is there any important vegetation or habitat (i.e. Biodiversity and Conservation SEPP) within or adjacent to the work area?	✓	
Could the works impact on any aquatic flora or habitat (i.e. seagrasses, mangroves)?		✓
Are there any noxious or environmental weeds present within the work area?		✓
Will clearing of native vegetation be required?	✓	

Biodiversity

The REF is accompanied by a Streamlined Biodiversity Development Assessment Report (BDAR) (**Appendix K**) prepared by Narla Environmental that assesses the proposed activity's impacts on threatened biodiversity listed under the *Biodiversity Conservation Act 2016* and the *Environment Protection and Biodiversity and Conservation Act 1999*.

The site is noted to contain one (1) native vegetation community. Owing to the highly altered state of the native vegetation present within the site, being comprised of locally occurring native species (*Syncarpia glomulifera*) interspersed with native species that are likely planted within this landscape, Plant Community Type (PCT) 3444: Lower Hunter Spotted Gum-Ironbark Forest has been ascribed to the native vegetation. Narla also notes that the remainder of the site consists of disturbed grassland only. Vegetation zones within the site are shown below in **Figure 19.**

Figure 19 Vegetation zones within the site

Source: Narla Environmental

The Report notes that 0.02ha of this native vegetation will be required to be removed as part of the proposed activity. Specifically, to deliver the driveway access to Jurd Street. Notwithstanding, Narla Environmental notes that this area to be removed is currently of a low condition, and that no offset credits are required to be purchased. Further, no hollow-bearing trees or flora species potentially subject to a Serious and Irreversible Impact (SAII) were surveyed on the site.

It is noted that one (1) fauna species listed under the BC Act has been assumed present at the site for the purposes of a fauna species credit survey, being the Regent Honeyeater. Whilst the proposed activity will require the removal of approximately 0.02ha of areas mapped as important habitat for this species, this impact is expected to be localised and is not expected to have an overall impact on the bioregional persistence of this species, owing to the area of vegetation to be retained unimpacted, as well as the trees proposed to be planted as a result of the project, which will result in a net gain of potential habitat.

Nonetheless, the proposed activity will require the purchase and retirement of Biodiversity Offset Credits, given the status of the Regent Honeyeater as critically endangered under the BC Act. This is shown below in **Figure 20**. Notwithstanding this, Narla Environmental confirms that the proposed activity will not have a Serious and Irreversible Impact (SAII) on the Regent Honeyeater.

PCT	BC Act Status	Vegetation Zone	Total Area (ha)	Ecosystem Credits Required
Anthochaera phrygia (Regent Honeyeater)	Critically Endangered	Zone 1: Low Condition	0.02ha	1
Total Species Credits				1

Figure 20 Biodiversity offsets required to be purchased

Source: Narla Environmental

The BDAR provides a range of mitigation measures to minimise the above potential direct and indirect impacts, which are set out in **Appendix B.**

Tree Removal

This REF is accompanied by an Arboricultural Impact Assessment and Tree Protection Management Plan prepared by Active Green Services (**Appendix J**) that identifies and assesses 24 trees on and around the site and determines which trees require removal to facilitate the works proposed in this REF.

The Report has identified 3 trees which are in direct conflict with the proposed new driveway off Jurd Street and will therefore require removal to facilitate development works. These trees are identified as having a low, moderate and high retention value respectively. The report also identifies 3 other trees on adjoining residential properties may be impacted by the proposed car park in the western portion of the site, however, with an adopted tree sensitive ideology it is foreseeable that that these trees will remain viable and can be retained.

It is also noted that a comprehensive landscaping scheme has been developed for the site which proposes a range of compensatory planting, increasing the site's total canopy coverage from 3.04% to 30.77%.

A total of eighteen (18) trees in other areas of the site are located outside the scope of works and therefore have no significant arboricultural impact. These trees are to be retained and afforded protection per the TPMP.

The report concludes that through the implementation of the detailed TPMP, it is expected that each of the trees proposed to be retained in a manner that does not compromise their future viability. This has been included as a mitigation measure in **Appendix B**.

6.2.11 Bushfire

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

Given the site is not located within bushfire prone land, the works will have no adverse impacts.

6.2.12 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?		✓
Will the works involve the installation of structures or services that may be perceived as objectionable or nuisance?		✓
Will the works impact on or be in the vicinity of other services?	✓	

The REF is accompanied by a Preliminary Construction Management Plan (**Appendix II**) that includes measures to protect the existing hospital's operations during construction works. Impacts to the existing hospital operations will be minimised where possible, which may require works outside of the proposed standard hours. Any planned disruptions to hospital operations and services will be managed through the process of Disruption Notices.

Furthermore, the Noise and Vibration Impact Assessment (**Appendix V**) that accompanies this REF notes that noise levels are predicted within the Noise Affected Level for all equipment with respect to the existing Cessnock Hospital. The Assessment includes mitigation measures to ensure that noise and vibration impacts associated with the new facility's construction will not disrupt the existing hospital's operations.

An Aviation Impact Assessment Report has been prepared by AviPro (**Appendix U**) to assess the impacts of the project on the aviation operations into and out of any nearby aerodromes. The proposed activity is located approximately 5km from the Cessnock Aerodrome. 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 no aviation impacts exist for this proposed development and there is therefore no mitigation measures required. It is however recommended that cranes be assessed by CASA if it is intended that they operate above RL109.

6.2.13 Waste Generation

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

Construction Waste Management

A Construction Waste Management Plan has been prepared by Turner Townsend and is provided at **Appendix Z**. This Report identifies the type, volume and disposal methods for all waste material during the demolition and construction phase. It also provides site-specific operational methods around training and inductions, materials selection and ordering, waste avoidance opportunities, and relevant site procedures to ensure waste is appropriately disposed. The report also recommends the location and design of waste management facilities on site.

At this stage of the project development, it is only possible to provide rough estimation of the amount of waste material that will be produced. A Construction Management Plan (CMP) will be prepared by the appointed contractor and will provide a framework to reduce waste directed to landfill. The CMP will further develop the specific details, of a construction waste management plan, including volumes of waste generation. Where possible, materials would be recycled. Nonetheless, Turner & Townsend have provided an estimate of the total quantities of waste during the construction phase of the project, which is summarised in **Table 17** below.

Table 17: Waste Quantities and Service Frequency for External Bins

Material	Average Volume/ 100m2	Total (m3)	Total (t)
Hard Materials (32%)	6.10	498	490
Timber (24%)	4.60	308	92
Plastic (15%)	2.90	194	25
Cement Sheet (9%)	1.70	114	57
Gypsum Material (6%)	1.10	74	15
Metals (6%)	1.10	74	66
Paper / Card (4%)	0.80	54	5
Vegetation (3%)	0.60	40	6
Soil (1%)	0.20	13	21
Other (0.3%)	0.03	2	1
Total Waste	19.10	1,280	780

Source: Turner & Townsend

All relevant mitigation measures relating to construction waste have been incorporated into the Mitigation Measures at **Appendix B.**

Operational Waste Management

A Preliminary Operational Waste Management Plan (POMP) (**Appendix Y**) has been prepared by Turner Townsend and details the anticipated waste generation estimates for the operation phase of the development. This section outlines likely waste streams for the nature of this facility and the recommended bin sizes, quantities, and collection frequencies, which are summarised in **Table 18** below.

Table 18: Waste Quantities and Service Frequency for External Bins

Waste Stream	Assets	Frequency
General Waste	General Waste Compactor	3 x Weekly
Co-Mingled Recycling	660L for internal use	Weekly
Paper/Cardboard Recycling	660L for internal use	Weekly
Food/ Garden Organics	240L bins	Requirement to go to registered FOGO facility in place by 2025
Clinical Waste	240L bins	Weekly
Cytotoxic Waste	240L and 120L bins	Weekly
Pharmaceutical Waste	120L bins	Weekly
Sharps	19L bins	Fortnightly

Source: Turner & Townsend

The areas allocated within the design of the new building for waste management include:

- A total of four (4) disposal rooms – three (3) on Ground Level and one (1) on Level One, which will act as waste holds for combined general and recycling.
- Six (6) dirty utility rooms are located throughout the new hospital holding both general and clinical waste, dirty linen trolleys and wall mounted sharps bins.

In total, 100m^2 of floorspace is provided throughout the new clinical services building. The new facility will operate in accordance with the Hunter New England LHD District Waste Management Plan, which is appended to the POMP at **Appendix Y**.

6.2.14 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?	✓	
Is there potential for the works to disturb or require removal of asbestos?	✓	
Is the work site located on land that is known to be or is potentially contaminated?	✓	
Will the works require a Hazardous Materials Assessment?	✓	
Is a Remediation Action Plan (RAP) required to establish the proposed activity?	✓	
Is the work category 2 works under Resilience and Hazards SEPP?		✓ The remediation works are category 1 as the site is a heritage item.

Hazardous Materials

A number of Pre-Demolition Hazardous Materials Reports have been prepared by Tetra Tech Coffey, which analyses the nature and extent of risk posed by hazardous materials, including asbestos containing materials (ACM) which may be encountered during future demolition and construction works associated with the proposed activity. The following buildings were subjected to assessment:

- Kitchen building
- Maintenance workshop
- Pink Lady Volunteer Services and Dangerous Goods Building

- Cessnock House and Pathology
- Main Hospital Building
- Store Room and Mortuary
- Workshops, Metal Shed and Old Mortuary

Whist it is noted that several of the buildings across the site have been surveyed, a number of these buildings sit outside the scope of works of this REF, these include:

- Kitchen Building
- Pink Lady Volunteer Services and Dangerous Goods Building
- Cessnock House (noting Pathology will be demolished)
- Main Hospital Building

In light of this, Tetra Tech Coffey have also prepared a Pre-Demolition Hazardous Materials Summary Letter, which is provided at **Appendix Q**. This Report summarises the findings of the abovementioned buildings, with the results reproduced below in **Figure 21.**

Building	Asbestos Containing Materials		Lead Based Paint	Lead Containing Dust	Synthetic Mineral Fibre	Poly-chlorinated Biphenyls	Ozone Depleting Substances
	Non-Friable	Friable					
Kitchen	✓	-	-	-	✓	-	-
Maintenance Workshop	✓	✓	✓	✓	✓	✓	-
Pink Lady Volunteer Services and Dangerous Goods Buildings	✓	✓	✓	-	-	-	-
Cessnock House and Pathology	✓	✓	✓	✓	✓	✓	✓
Main Building	✓	✓	✓	✓	✓	✓	✓
Storeroom & Mortuary	✓	✓	✓	-	✓	-	-
Workshops, Metal Shed and Old Mortuary	✓	✓	✓	✓	✓	✓	✓

Figure 21 Summary of hazardous materials findings throughout the site (buildings subject to this REF outlined in red)

Source: Tetra Tech Coffey

The register also outlines control measures to safely treat and remove hazardous material before demolition. A Licensed Class A Asbestos Removalist will prepare an Asbestos Removal Control Plan for the site before the proposed demolition works, which along with the HAZMAT register, will be provided to the demolition/building contractor. Further to this, clearance inspections are conducted by a licenced assessor following the completion of the removal works to confirm that the works have been conducted to a satisfactory standard.

Mitigation measures pertaining to hazardous materials are also outlined in **Appendix B**.

Contamination

Furthermore, a Preliminary Site Investigation (PSI) (**Appendix EE**) and Detailed Site Investigation (DSI) (**Appendix FF**) have also been prepared by Tetra Tech Coffey, which assess the potential for contamination at the site as well as its suitability for the proposed clinical services building.

Based on a historical review of the REF Activity Area, the PSI and DSI identified several potential areas of environmental concern (AECs) and associated primary contaminants of potential concern (COPC). These areas were further investigated via soil sampling across a number of sample locations and assessed against human health and ecological thresholds. The soil samples produced the following key results:

- There was no indication of significant contamination of soil from potential oils spills within the yard maintenance shed from concentrations in boreholes in the vicinity.
- Reported concentrations of TRHs were relatively low and BTEX was below LOR. Similarly, in the vicinity of the fuel AST, which appeared no longer to be in use.
- Elevated Zinc exceeding site-specific EIL criteria were isolated and associated with fill containing waste materials. The calculated 95% UCL average for zinc across the site was below assessment criteria.
- Concentrations of TRH exceeding the ESL assessment criteria were reported in two (2) borehole samples above criteria, with QC1A >250% of criteria. TRHs and benzo(a)pyrene were also reported in the deeper samples, though were at lower concentrations below assessment criteria.
- Groundwater was encountered at >6mbgl and reported only low concentrations of metals. Other COPCs were below LORs. Top-down contamination from fill and other potential identified sources (such as the yard maintenance shed) on site was not indicated.
- Asbestos in the form of bonded ACM was reported in fill from the grassed area behind the workshops and yard maintenance shed and the pathology building. The potential also exists for asbestos debris to be present beneath the footprints of these buildings. Some of the asbestos was reported in the surface soils therefore would not meet the HSL requirement for no visible forms of asbestos.

Based on the above results, the DSI identified the need for a Remediation Action Plan (RAP) to make the site suitable for the proposed land use. As such, this REF is accompanied by a RAP (**Appendix GG**). The DSI concludes that the REF Activity Area can be made suitable for the proposal following the implementation of the RAP. The objectives of the RAP are to provide guidance for the remediation of the Site including remedial options assessment and identification of a preferred remedial strategy so that the Site can be suitable for the proposed use.

As the site is identified as a heritage item, the remediation works outlined in the RAP are classified as 'Category 1 remediation work' under Section 4.8 of the *State Environmental Planning Policy (Resilience and Hazards) 2021* and require development consent. Accordingly, the REF's mitigation measures include a measure stating that development consent must obtained to remediate the site in accordance with the RAP, prior to works associated with the REF commencing.

6.2.15 Sustainability and Climate Resilience

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

This REF is supported by an Ecologically Sustainable Development (ESD) Report (refer **Appendix I**) which has been prepared by Lucid Consulting and describes the sustainable design initiatives and outcomes associated with the new clinical services building at Cessnock Hospital.

The Report provides an overview of the proposed sustainability targets for the project and the sustainability initiatives to be included to achieve these. The initiatives that have been developed for the project have been prepared in consideration of:

- Design Guidance Note (DGN) 058
- Section 2.5.6 of the NSW Health Engineering Services Guide
- *State Environmental Planning Policy (Sustainable Buildings) 2022*

- AS 5334-2013 Climate change adaptation for settlements and infrastructure — A risk based approach
- Section 193 of the EP&A Regulations

ESD Principles

The EP&A Regulations lists four principles of ecologically sustainable development. **Table 19** below provides an assessment of the proposed activity's impact against these principles. The ESD Report prepared by Lucid Consulting informs this assessment.

Table 19: Assessment against the Principles of Ecologically Sustainable Development

Principle	Assessment
Precautionary Principle If there is a threat of serious irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.	There are no threats of serious irreversible environmental damage associated with the Proposal. A series of technical reports are appended to this REF and confirm that there are no anticipated significant impacts to the environment. Mitigation measures will be implemented to ensure any impact can be managed appropriately (refer to **Appendix B**).
Intergenerational Equity The present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.	The Proposal has integrated short and long-term social, financial and environmental considerations so that any foreseeable impacts are not left to be addressed by future generations. Issues with potential long-term implications, such as waste disposal, will be avoided and/or minimised through construction planning and the application of safeguards and management measures described in this REF and the appended technical reports. Furthermore, the Proponent will incorporate a range of sustainability initiatives (as discussed in the ESD Report (**Appendix I**) to minimise impacts on inter-generational equity.
Conservation of biological diversity and ecological integrity Maintaining the diversity and quality of ecosystems and enhancing their capacity to adapt to change and provide for the needs of future generations.	The Proposal will not significantly impact the site's biological diversity and ecological integrity and there will be no impact on the site's biodiversity as stated within the BDAR (**Appendix K**). The significance test confirmed that the project will not have a significant impact on the identified threatened species and ecological communities under the BC Act or EPBC Act.
Improved valuation, pricing and incentive mechanisms Environmental factors should be included in the valuation of assets and services.	The Proposal will incorporate the sustainability measures outlined in the ESD Report (refer to **Appendix I**).

The NSW Health Infrastructure Design Guidance Note (DGN) 58

The NSW Health Infrastructure Design Guidance Note (DGN) 58 – Environmentally Sustainable Development provides instruction on how ESD is to be addressed on HI projects. **Table 20** below provides an assessment of the Proposal's impact against these principles.

Table 20: Assessment against the NSW Health Infrastructure Design Guidance Note (DGN) 58

Credit No.	Name	Intent / Requirements
2.0	Commissioning and Tuning	To implement commissioning, handover and tuning initiatives that ensure all building services operate to their full potential.
3.1	Adaptation and Resilience	The project considers the risks of climate change and implements design initiatives to mitigate major risks.
8.0	Operational Waste	Provision for the multiple waste streams of the site, including general waste, organic waste and various recycling waste streams. Allows materials to be recycled appropriately reducing waste to landfill.
9.0	Indoor Air Quality	Increase the provision of outside air beyond minimum requirements to expel internally generated pollutants and improve air quality. Scientific research suggests that an airflow rate significantly exceeding that recommended by standards is needed to minimise sick building syndrome symptoms and to improve human performance and productivity.
12.0	Visual Comfort	Designing the building to allow access to engaging views complete with greenspace and vegetation to boost connection with nature.
15E.0	Greenhouse Gas Emissions – Reference Pathway	Model building design operational greenhouse gas emissions to achieve the minimum 10% improvement to the reference building and help identify further efficiency initiatives.

Credit No.	Name	Intent / Requirements
17B.3	Sustainable Transport – Low Emissions Vehicle Infrastructure	The project provides facilities to support the uptake of sustainable transport options such as electric vehicles.
18.0	Potable Water	The inclusion of rainwater harvesting, storage and reuse for irrigation can reduce the stress on water supply in the region.
19B.1	Life Cycle Impacts – Concrete	The project minimises the embodied emissions of concrete through Portland cement replacement.
20.1	Responsible Building Materials – Structural and Reinforcing Steel	The project minimises the embodied energy and carbon associated with steel. Steel products are sourced from a Responsible Steel Maker.
20.3	Responsible Building Materials – Permanent Formwork, Pipes, Flooring, Blinds and Cables	All PVC products are certified against a best practice PVC scheme.
25.0	Heat Island Effect – Heat Island Effect Reduction	The project mitigates the urban heat island effect through sensitive landscape design.
26.1	Stormwater – Stormwater Peak Discharge	Stormwater discharge form the site is reduced compared to reference flow rates.
27.1	Light Pollution – Light Pollution to Night Sky	The project minimises impacts to night sky light pollution by reducing upward light emissions from external light fittings.

Sustainable Design Measures

As noted in the table above, the Proposal incorporates a series of measures and initiatives to ensure energy and water efficiency and minimise greenhouse gases associated with the Proposal. Such sustainable design measures will include, but are not limited to:

- Installation of all-electric heating
- Provision of Solar PV panels and offset grid consumption.
- Inclusion of rainwater harvesting, storage and reuse for irrigation
- Installation of EV chargers
- Installation of sensitive lighting design to minimise light emissions
- Provision for the multiple waste streams of the site
- High Efficiency HVAC system
- High performance Building Fabric
- Water sensitive urban design measures

Climate Resilience Design Measures

Detailed climate analysis and adaptation planning in accordance with AS5334-2013 has been undertaken for the site as part of proposed future projects on the Cessnock Hospital site. The identified climate change hazards include:

1. Increased average temperature.
2. Increased number of extreme cold days and heatwaves.
3. Changes to rainfall and drought patterns.

Climate resilience design measures have been incorporated into the design scheme to address these climate risks:

- Increased rainwater tank sizing
- Mechanical design conditions

- Water-sensitive urban design

Additional measures will be implemented to ensure no environmental resources in the locality are adversely impacted during the construction or operational phases of the works. Refer to **Appendix B** for further details.

6.2.16 Community Impact/Social Impact

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

Environmental Impact

Overall, the delivery of a new clinical services building at Cessnock Hospital will provide improved health services to the community of Cessnock and surrounding areas that will benefit patients, staff, hospital stakeholders and the wider community. The proposed demolition and construction works will allow for the hospital to realise its full potential and will improve the overall function of the hospital.

Some temporary minor amenity impacts resulting from demolition and construction works associated with noise, visual change (signage and fencing) and air quality may be experienced by adjoining residents, however, on balance, the demolition and consequent new building represents a benefit to the community. This REF and the accompanying technical documents confirm that the proposed activity is unlikely to result in any long-term adverse noise, pollution, visual impact and loss of privacy impacts to members of the community. Where necessary, the implementation of appropriate mitigation measures, including the requirement for a Construction Management Plan, have been proposed to ensure that any impacts are limited as much as practicable.

Accordingly, the proposed activity will deliver the following positive impacts:

- The proposed activity incorporates a significant quantum of replacement tree provision to mitigate the removal of trees on site, noting that the site-wide canopy coverage will increase from 3.04% to 30.77%.
- The proposed activity will provide a new building of a high-quality design which will improve the visual aesthetics of the northern portion of the site, which is currently devoid of any development and appears tired and underutilised.
- The proposed activity will generate limited environmental impacts, and any impacts are capable of being suitably managed through a range of mitigation measures (outlined in Appendix B).

CPTED

A Crime Prevention Through Environmental Design Assessment is included in the Architectural Design Report prepared by Fitzpatrick & Partners (refer to **Appendix D**). The architectural plans respond to the surrounding crime risk by implementing the following design features:

- Increased passive surveillance opportunities through outdoor seating provision and maximum visibility in the front of house area.
- Clear access links to public transport.

- Secure parking and building access.
- Maintenance and monitoring plans for the management of open spaces.

Economic Impact

The proposed activity will deliver an array of economic benefits to the local and wider regional communities. The activity will deliver a purpose-built health facility that provides contemporary models of care and responds to the evolving needs of patients, staff and carers in Cessnock and the surrounding areas. The facility will encourage the creation of a well-integrated health precinct.

The proposed activity will also result in the creation of employment opportunities during both the construction and operational stages of the works.

Social Impact

The social impacts and benefits associated with the proposed activity include:

- Temporary adverse social impacts during construction will be managed to ensure impacts are reasonably mitigated.
- The works will provide a significant piece of social infrastructure by providing a contemporary health facility that will have significant positive impacts on the overall health outcomes of the region;
- Improved access to a range of health services and facilities for communities in the region; and
- Provides additional social benefits for the region in terms of providing additional employment opportunities in the area.

Overall, it is considered that the social and community benefits of delivering a new clinical services building at Cessnock Hospital outweigh any potential impacts.

A range of mitigation measures relating to social impacts are also provided within **Appendix B**.

6.2.17 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?		✓
Is there any transformation planned within 500m of the site?		✓
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?		✓
Is the activity likely to result in further significant impacts together with other development planned, approved or under construction within 500m of the site?		✓
Has a cumulative impact statement, proportionate to the activity, been included in REF documentation? If no – why not?		✓

The DPE Guidelines *Cumulative Impact Assessment Guidelines for State Significant Projects* (October 2022) identifies the following types of development as 'relevant future projects' that should be included in the cumulative assessment of a project.

- SSD and SSI projects.
- Designated development requiring an EIS.
- Projects requiring assessment under Division 5.1 of the EP&A Act that are likely to significantly affect the
- environment and require an EIS.
- Projects declared to be a controlled action under the EPBC Act.
- Major greenfield or urban renewal developments.

A review of DPHI's Major Projects Register, and Cessnock City Council's Development Application Tracker, did not identify any of these development types within the site's vicinity.

Due to the projects limited external impacts, further cumulative impact assessment is not considered necessary.

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 B.**

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 low, 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 activity.

8. Justification and Conclusion

The provision of a health facility 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 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 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.