

ALBURY WODONGA REGIONAL HOSPITAL PROJECT CONCEPT DESIGN REPORT

A wide river flows through a landscape with large, mature trees on the banks. The trees have dense green foliage and their forms are reflected in the calm water. The sky is a clear, bright blue. In the foreground, some reeds and grasses are visible on the left bank, and a log lies on the ground near the water's edge.

Hassell

**WE ACKNOWLEDGE THE WIRADJURI PEOPLE, THE ORIGINAL INHABITANTS AND
TRADITIONAL CUSTODIANS OF THE LAND AND WATERS NEAR ALBURY AND
WODONGA. WE PAY OUR RESPECTS TO ELDERS PAST AND PRESENT**



Hassell
Gadigal Country
Level 2
Pier 8/9, 23 Hickson Road
Sydney NSW Australia 2000
hassellstudio.com
@hassell_studio

Section 1	Executive Summary	4
1.1	Project Scope	7
Section 2	Terms of Reference	8
2.1	Project Team	9
2.2	Methodology	10
2.3	User Engagement	11
2.4	Documentation Review	13
Section 3	Service Planning Summary	14
3.1	Service Statement	15
3.2	Functional Relationships	18
Section 4	Functional Brief Context	19
4.1	Functional Design Brief	20
4.2	Schedule of Accommodation	21
Section 5	Master Plan Context	24
5.1	Site Master Plan	25
5.2	Site Infrastructure Master Plan	31
Section 6	Strategic Context	34
6.1	Title	36
6.2	Access to Site	36
6.3	Zoning	37
6.4	Local Health Services	37
6.5	Green Spaces	38
6.6	Heritage	38
6.7	Built Form	39
6.8	Topography	39
6.9	Sun Path	40
6.10	Wind	40
6.11	Developable Area	41
6.12	Biodiversity	41
6.13	Flora & Fauna	42
6.14	Site Investigations	42
Section 7	Development Proposal	43
7.1	Schedule of Accommodation	44
7.2	Design Principles	45
7.3	Options Development	48
7.4	IPU Assessment	54
7.5	Mental Health Assessment	55
7.6	Preferred Concept Design	58
7.7	Northeast Building	61
7.8	Journey Diagrams	62
7.9	24 Hour Zone	65
7.10	Zonal Master Plan	66
7.11	Staging	70

Rev	Date	Approved By	Description
01	05.06.2024	Catherine Loker	Draft for review
02	28.06.2024	Catherine Loker	For Approval
03	05.07.2024	Catherine Loker	For Approval

Section 8	Architectural Design	72
8.1	Conceptual Framework	78
8.2	Site Setting	81
8.3	Access	82
8.4	Building Access	82
8.5	Car Parking	83
8.6	Building Levels	86
8.7	Building Articulation	87
8.8	Building Fabric	90
8.9	Methodology	93
8.10	Landscape	97
8.11	Impact on Ex Departments	98
8.12	Future Proofing	99
8.13	Interior Design	100
8.14	Public Art Strategy	111
8.15	Regenerative Design	112
8.16	Retail Strategy	115
Section 9	Infrastructure	116
9.1	Building Code of Australia (BCA)/Disability Discrimination (DDA)	117
9.2	Structural Engineering	117
9.3	Civil Engineering	117
9.4	Mechanical Engineering	118
9.5	Electrical, VT and ICT Services	118
9.6	Hydraulic and Fire Engineering	118
9.7	ESD	119
9.8	Traffic Engineering	119
9.9	Acoustic Engineering	119
Section 10	Appendices Part 01	
10.1	Architectural Concept Plans	
10.2	Architectural Concept Options	
10.3	Schedule of Accommodation	
10.4	PUG Meetings and Sign-offs	
10.5	Functional Design Brief	
10.6	Value Management Report	
	Appendices Part 02	
10.7	Landscape CD Report	
10.8	Way finding	
	Appendices Part 03	
10.9	BCA and Access	
10.10	Structural	
10.11	Civil	
10.12	Mechanical and Medical Gases	
10.13	Vertical Transportation	
10.14	Electrical, ICT and Security	
10.15	Hydraulics	
10.16	Traffic and Car Parking	
10.17	Acoustics	
10.18	Fire Services	
10.19	Sustainability (ESD)	
10.20	Connecting with Country	

SECTION 1

EXECUTIVE SUMMARY

INTRODUCTION

Hassell has prepared this report in collaboration with NSW Health Infrastructure, Department of Health, Victoria, Albury Wodonga Health Service (AWH) and the Project Partners. It presents the Concept Design of the Albury Wodonga Regional Hospital (AWRH) Project. It builds directly upon the ideas described in the Master Plan Report (September 2023) and the requirements outlined in the Functional Design Brief (2023).

The Concept Design has taken the principals established in master planning and developed concepts, forms and functionalities. This report and the accompanying drawings define the agreed concept, required spatial parameters to deliver the brief and coordinate key elements across the design team. The next phase, Schematic Design, will develop these ideas, engage with User Groups and other stakeholders, and provide initial resolution on these key ideas.

'The report documents Concept Design development for the Albury Wodonga Regional Hospital Project, building upon and responding to the Master Plan Report (Sept 2023) and the Functional Design Brief (2023).

This report is arranged into ten sections:

- Executive summary
Outlines the overarching drivers and requirements of the project
- Terms of Reference
Outlines the team, methodology and stakeholder engagement
- Service Planning Summary
Outlines the agreed Albury Wodonga Health (AWH) Clinical Services and their relationships
- Functional Design Brief Context
Highlights the Functional Design Brief (FDB) process and the resultant Schedule of Accommodation (SOA)
- Master Plan Context
Outlines further development of master planning principles as they relate to the concept design
- Strategic Context
Describes the existing site and context analysis, as well as constraints and opportunities
- Development Proposal
Focusses on the clinical design, block and stack options, flows analysis
- Architectural Design
Architectural concept design proposal
- Infrastructure Review
Summary of engineering review and commentary process
- Appendices
Concept design architectural drawings, supporting information and consultants reports

The Concept Design has been prepared for NSW Health Infrastructure by Hassell, in collaboration with Johnstaff and the following specialist consultants:

- Acor
- Avipro
- Beveridge Williams
- Bradsworth Tree
- BSG
- Bushfire Hazard Solutions
- Climate Wise
- Deloitte
- E-Lab
- Enstruct
- Maynard
- MBM
- Phillip Chun
- SCT Consulting
- Steensen Varming
- WSC
- Yerrabingin

EXECUTIVE SUMMARY

The Albury Wodonga Regional Hospital Project will deliver approximately 28,000 sqm of new and refurbished space and 2,600 sqm (work in progress) of enabling and early works. The proposed design supports the expansion of clinical services outlined in the Clinical Services Plan and sets out frameworks for future staged development and partnerships over time for the continued care of community in the Albury Wodonga border region.

The \$558 million joint funding commitment by NSW, Victorian and Australian governments for the Albury Wodonga Regional Hospital Project was announced on 27 October 2022 .

The project will provide improved health services to meet the health needs of Albury, Wodonga and border communities – now and into the future.

The project will deliver a new, multi-storey clinical services building and upgrades to existing facilities to support the hospital expansion.

The scope of the project will continue to be confirmed as part of the planning and design process and is expected to include:

- More medical and surgical beds
- New operating theatres
- Expansion of outpatient and specialist treatment spaces
- A new Intensive Care Unit (ICU)
- Consolidation of maternity and newborn services on the Albury campus
- Contemporary new adult acute mental health inpatient unit to replace Nolan House
- Additional car parking including a multi-storey car park.

The benefits of this project are:

- Consolidate acute hospital services

- on the Albury Campus
- Deliver the best possible healthcare environment in modern facilities, that reflect the needs of the local community
- Attract and train skilled and specialised medical, nursing, allied health and support staff
- Benefit from the retention of existing high value health assets, including the regional cancer centre and the recently completed Emergency Department expansion
- Enable further growth in sub-acute, day surgical and ambulatory care at Wodonga Campus by relocating existing inpatient maternity, birthing, neonatal care and day medical services to the Albury Campus

Background

In February 2023, NSW Health Infrastructure (HI) engaged Hassell as the principal design consultant, responsible for architectural, landscape architecture and interior design aspects.

Master Plan (Part 1) was concluded with endorsed Master Plan in September 2023.

Feasibility (Part 2) commenced in October 2023 with the development of the Concept Design. This report outlines the proposed concept design and the

process of stakeholder engagement during this period.

Concept Design

This Concept Design report provides a comprehensive outline for the project's design, laying the groundwork for the project scope implementation.

- Optimising clinical efficiencies via Block and Stack and planning options assessed with Albury Wodonga Health Service (AWH) during 3 concept design workshops
- Facilitate dignity of patients and clarity of way finding via separation of patient and public flows – within the constraints of existing retained facilities
- Continuity of services via staged early and enabling works and recognition of and integration with, recent capital investment at the new ED and existing Albury Wodonga Regional Cancer Centre.
- Inclusion of landscape to support healing and recovery – importantly part of a specific contextual response to the Albury Hospital site
- Indigenous stakeholder consultation and collaboration in establishing a Connecting with Country framework to address key issues of well-being journey, places of rest and recovery

- and sensing country
- Elevation of identity and civic nature for AWH offering opportunities for broader community engagement and amenity for staff and patients as part of the precinct development, including arts integration and retail.

Future Development:

The report also considers future expansion of the health service and partnership opportunities on the Albury Campus. As identified in the Master Plan, the 8 hectare site has significant capacity for expansion to meet the needs of the health service and the broader community in the future.

Future stages of expansion have been tested through the planning phases of the design to ensure the project scope enables further investment and growth in site infrastructure.

1.1 PROJECT SCOPE

The Albury Wodonga Regional Hospital Project incorporates a new Clinical Services Building, refurbished space, new landscape and new car parking.

The report details the project plan of the site in alignment with the 2032 projections of the Clinical Services Plan (CSP), the service planning activities in Q3 2023 and the endorsed Functional Design Brief (FDB).

The concept design is based on the developed Schedule of Accommodation (SOA) V12 area of approximately 28,370 sqm. In addition, the development is facilitated by early and enabling works.

- Early and Enabling works include:
 - Allied Health, Ambulatory care services and Pharmacy
 - Associated offices and support service
- Main works include:
 - Ambulatory Care and Allied Health services
 - 7 x Operating Theatres
 - Cardiac Catheter Lab
 - Day procedure suite
 - Maternity and birthing services
 - Special Care Nursery
 - Paediatrics
 - 3 x 28 bed IPU's
 - 12 x ICU beds
 - Integrated Mental Health IPU
 - Education training and research
 - Administration and Front of House facilities, including retail amenity

- Refurbishment works include:
 - Additional 14 bed ED expansion
 - Expanded medical imaging
 - Mental Health, alcohol and other drugs service
 - Pharmacy
 - Pathology
 - Minor expansion to back of house facilities – noting logistics assessment has identified non capital cost operational efficiencies that can be leveraged to support new development

- Site**
- The site area is approximately 85,000m2
 - The project site is bounded to the north by Borella Road, to the east by East Street, to the South by the Eastern Hill Reserve, and to the West by Keene Street

- Existing facilities**
- Existing facilities maintained: Recently expanded emergency department, Medical Imaging, existing single storey IPU's and recent N-Class expansion, Albury Wodonga Regional Cancer Centre (AWRCC)
 - Pending compliance works associated with existing CSSD
 - No work is being undertaken in the above areas beyond their general integration and consideration of adjacent works

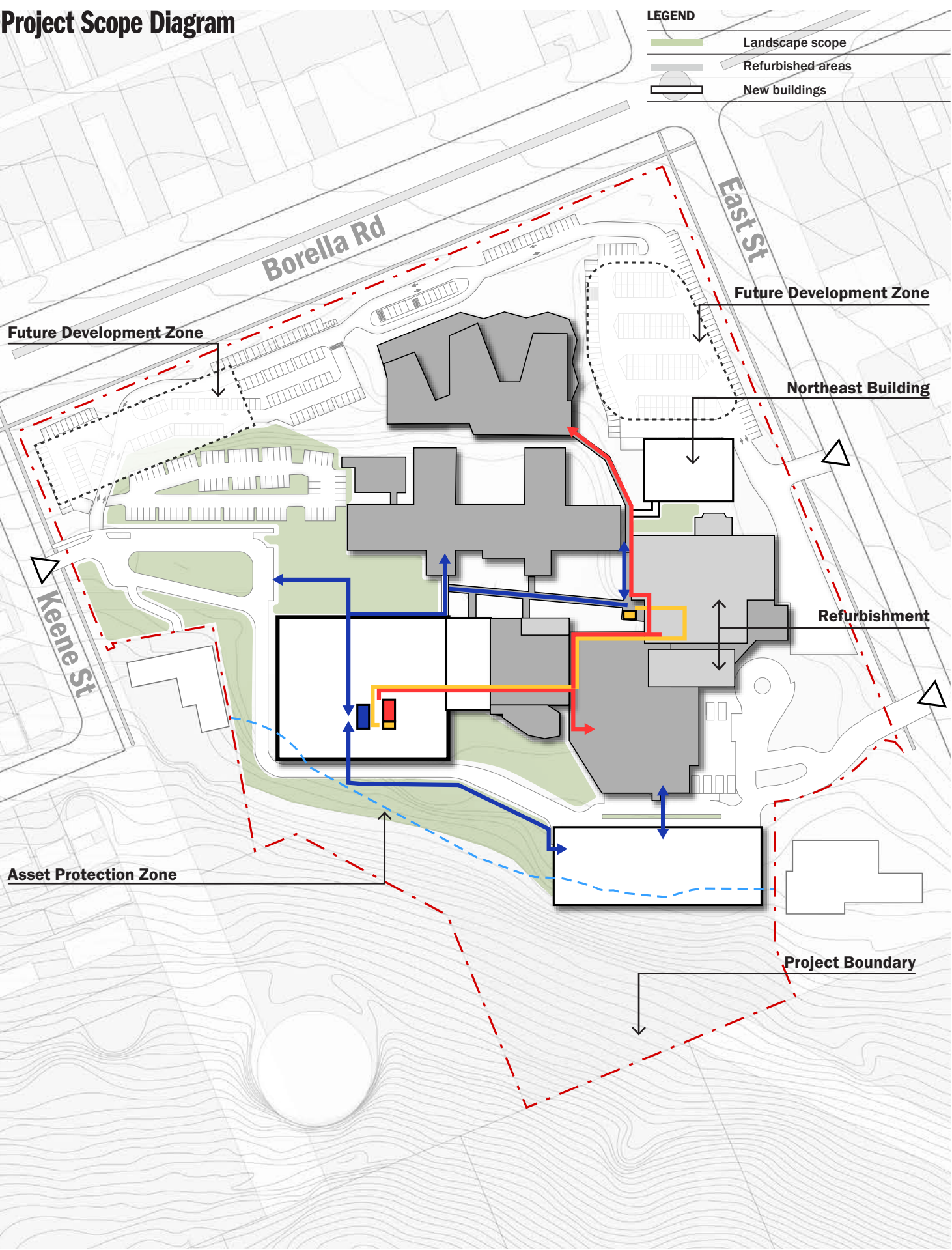
- Car parking**
- The project scope provides an increase in parking on-site for staff and visitors in line with the increased clinical capacity of the redevelopment.
 - A new multi-storey car park is provided in the Southern portion of the site with structural capacity

- to incorporate additional levels for future stages of expansion on the campus.
- A new on-grade car park is provided on the West of the campus, adjacent to the new public entry. This parking is coupled with an increased in short-term and accessible spaces for patient drop-off at the front door.
- The existing car parking areas to the North East and North West are retained and a new vehicle link between East and Keene Streets entries are provided to support cross-site connections.

- Landscape**
- The scope for landscaping includes the new northern courtyard directly outside the Clinical Services Building entry, as well as landscaping around new building areas
 - New landscaping is proposed relevant to road and car parking design as indicated adjacent

- Works outside project boundary**
- Additional on street parking along East Street is being investigated and documented by the Traffic Engineer

Project Scope Diagram



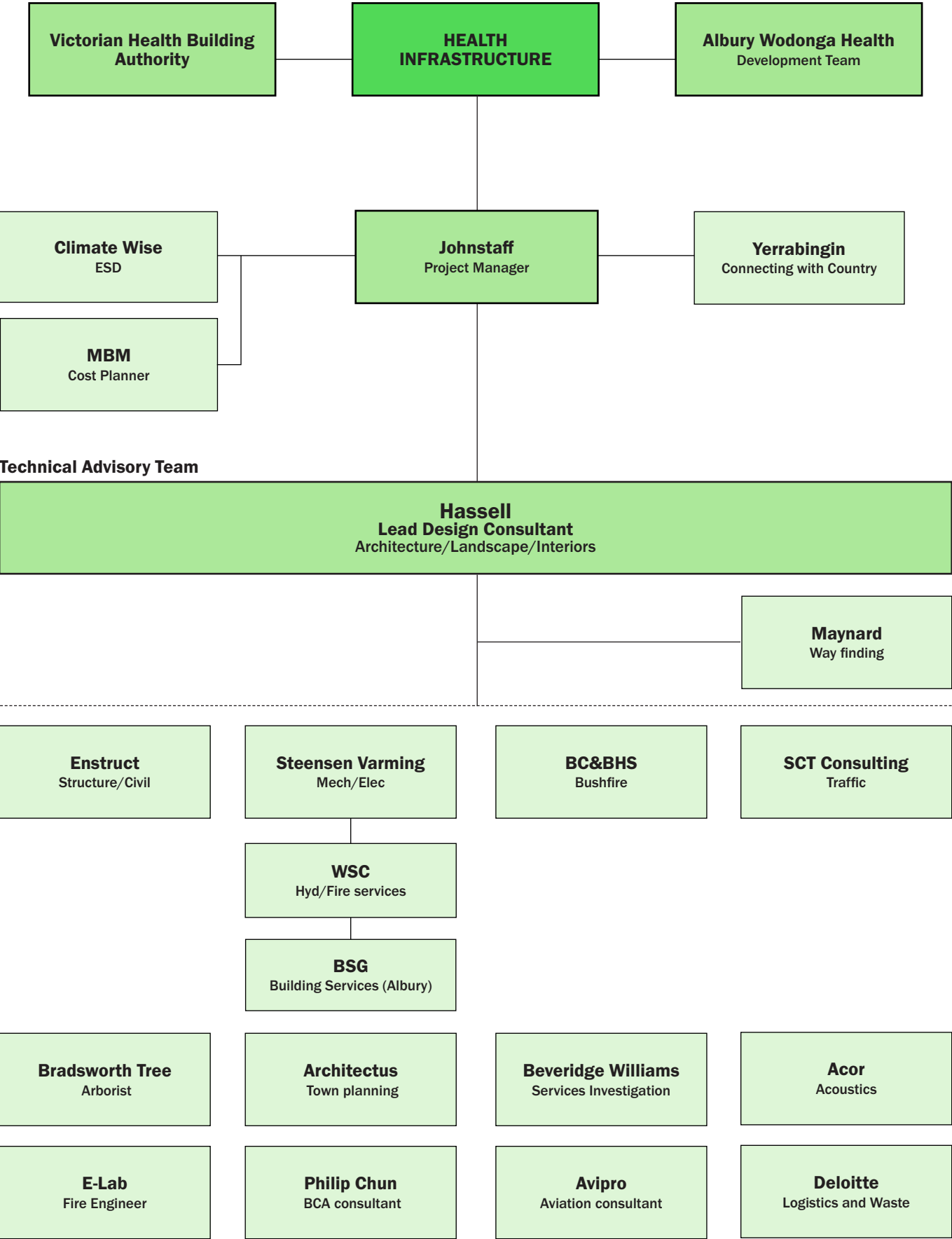
SECTION 2

TERMS OF REFERENCE

2.1 PROJECT TEAM

The project team has been assembled with the objective of delivering this project to the required standard, ensuring it meets the highest expectations. This approach is reflective of the project's potential and aspirations.

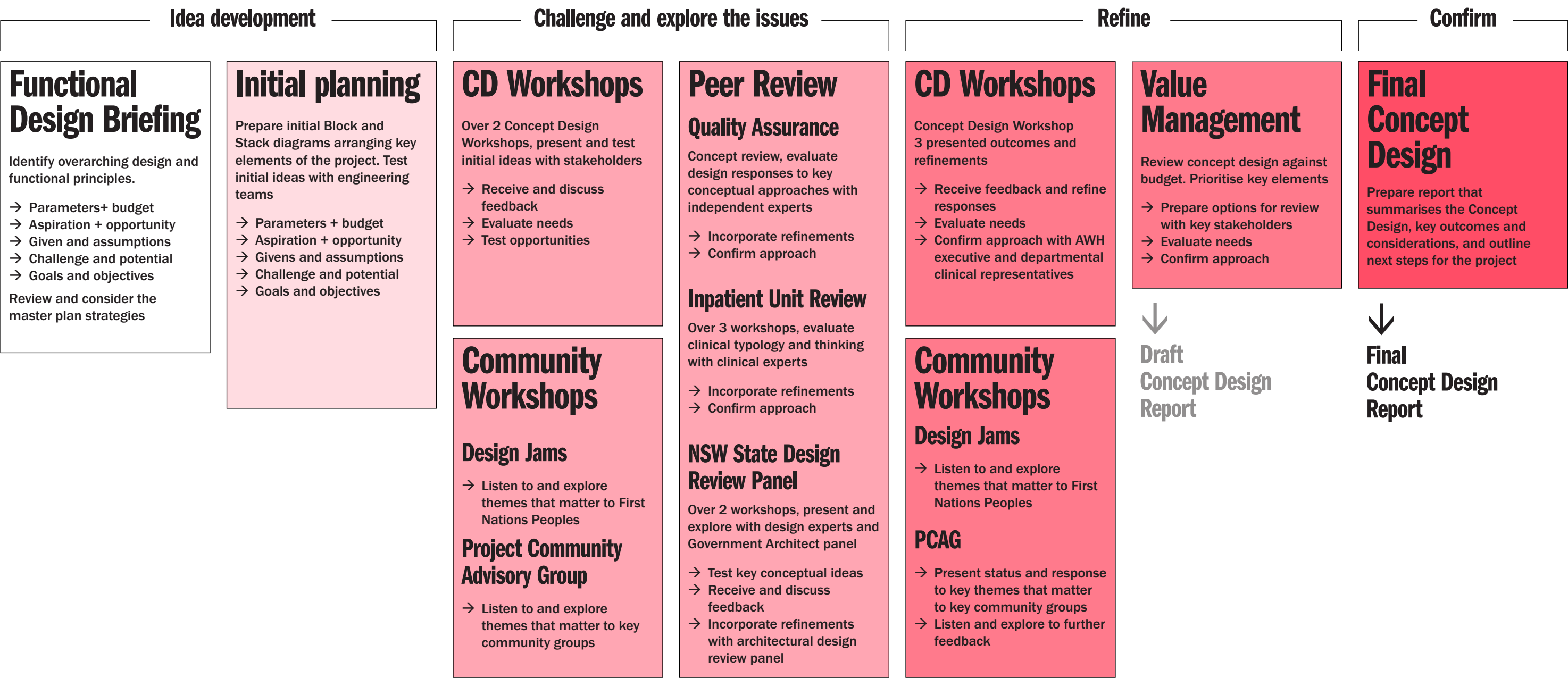
Project Team Structure



2.2

METHODOLOGY

The Concept Design Phase is a strategic development of the design and a review of its viability from a functional and cost perspective. The methodology employed over this phase ensures adequate input and development has taken place, at the right time, to inform the design.



2.3

CONSULTATION

PROCESS

The Concept Design Phase was a collaborative process with design approaches and options presented, tested, critiqued and refined. Concept Design has included:

- Refinement of conceptual ideas: the ideas developed during Phase 1 have been challenged, confirmed and agreed
- Design exploration: refinement of the spatial organisation, materials and systems
- Integration of systems
- Functional relationships and clinical flows
- Cost estimation and Value Engineering
- Client and stakeholder feedback: regular communication and presentation to gather feedback and ensure that the design meets their expectations and requirements
- Documentation preparation

Concept Design Workshops

Who: AWH, HI, VHBA, Hassell, Johnstaff, Consultants

- Concept Design Workshop 1 07/11/2023
- Concept Design Workshop 2 29/11/2023
- Concept Design Workshop 3 28/02/2024

Key topics/outcomes discussed

- Master planning principals
- Landscape design principles
- Interior design principles
- Block and Stack options for feedback and development
- Approach to car parking
- Architecture and built form approach

HI IPU Typology Assessment

Who: Clinical managers from recent precedent redevelopments (NSW+VIC), AWH, HI, Hassell, Johnstaff

- IPU Review 1 19/12/2023
- IPU Review 2 31/01/2024
- IPU Review 3 15/02/2024

Key topics/outcomes discussed

- The proposed design of the CSB for Albury deviates from a typical IPU

typology, by integrating courtyards with a hybrid race track design. Health Infrastructure sought a comprehensive evaluation of this concept before its adoption. To assess the effectiveness and feasibility of this variation, HI conducted three workshops. These workshops aimed to ensure that the proposed design prioritises staff safety and facilitates care delivery in a secure and cost-effective manner.

- The design underwent an evaluation against a series of assessment criteria and was benchmarked against recently completed IPU designs, leveraging insights from clinical experts experiences. The workshops generated valuable feedback, leading to refinements in the design to address identified concerns. This process gained approval and trust from the client to move forward with the proposed design in the next stage of the project.
- Agreed benchmarking and quality metrics
- Revised IPU layouts to in response to iterative feedback

HI Quality Assurance

Who: VHBA, HI, external experts, Hassell, Johnstaff

As part of Health Infrastructure’s design process, the Albury project underwent a mandatory design review in line with the HI Assurance Framework. The focus of the review was to address key design principles, considerations, and objectives during the concept design phase, and identify potential constraints and risks. The HI assurance review addressed key issues, and recommendations were made by the reviewers. Some of the key items that were raised and addressed are listed below. The full list of design observations and recommendations can be found in Appendices.

- Design Assurance Review 08/12/2023
- Design Assurance Review 13/12/2023
- Cost Assurance Review 31/01/2024

Key topics/outcomes discussed

- Master plan verification for project scope and long-term master plan – based on the revised master plan, further testing of the future long-term master plan options has been undertaken, with the N-E and N-W sites identified as a potential location for future development. In testing, future expansion of the CSB to the east has been considered, as well as staged implementation of IPU’s, ambulatory care, and education/

research opportunities in the central part of the site. Clinical connections between the future development opportunities and the expanded CSD are available at L00 and L01.

- Core and Chassis testing with respect to the long-term master plan (future expansion potential) was recommended in the QA review that the location of the new vertical core be situated on the east side of the new CSB, with the ability to serve future AWH development or be extended to accommodate future needs (either through constructed shafts or the potential addition of co-located shafts later). Retaining an integrated core was advised. The quantum of future-proofing relative to core infrastructure (e.g., shell shafts) to facilitate future master planning stages is challenging considering cost constraints. The future expansion phases allow for 3 levels of expansion to the east (once Medical Imaging is relocated at ground level). Specific clinical lifts and upper-level connections from expanded ED have been considered as part of that development. An alternate location of the core to either Central North or East had a significant impact on design and perimeter for IPU’s, increased scale to the northern side adjacent to existing single-story

2.3

CONSULTATION

PROCESS

buildings, including overshadowing and the Helipad flight path, which was a major consideration at the time. It should be noted that the long term strategy of staged expansion to the north requires the inclusion of a vertical core (in the first instance to serve Stage 1 multi-storey IPU) . Serving this portion of future stage expansion from an eastern core would require extensive inclusion of circulation in the project scope (with resultant project scope budget challenges) or future connectivity at L01 (or above) that is hindered by operational continuity for the existing IPU's. Hence, based on testing various scenarios, the project team recommended the core remain as proposed in the current design and not be moved north or east. For further details, refer to Appendices.

→ CSB location and the move to the east – the possibility of relocating the CSB to the east was explored. After discussions among the integrated project team, the recommendation was for the CSB to remain in its current position and not move east, based on the following:

- Reduced impacts on hospital operations during construction.
- Additional costs associated with this move for marginal travel time reduction.

- Associated complexities with communications re-routing, including additional permanent relocations required, such as the campus PABX room.
- IPU design assessment and process of verification of the design with HI - The project team underwent a series of IPU workshops conducted with HI clinical advisors and the SMEs and clinical staff from multiple facilities working in a variety of building models. Based on this exercise and the content included in IPU Typology Section 7 and Appendices, the project team recommend proceeding with the proposed typology.

State Design Review Panel

Who: VHBA, HI, SDRP, Hassell, Johnstaff
The NSW State Design Review Panel (SDRP) delivers independent, expert and consistent design quality advice on projects that have or will undergo assessment by the state. The program provides a best-practice, state wide approach to the review of state-significant projects, precincts and infrastructure. Review 1 and 2 occurred during Master Plan phase

- SDRP Review 08/11/2023

Key topics/outcomes discussed

- The preferred master plan option (as presented) provides a framework for the location of the new buildings, removal and retention of existing buildings, site connections, and the entry and arrival sequence.
- Further development of form, articulation and massing of the CSB and car park.
- Support approach to Indigenous stakeholder consultation and Connecting with Country framework
- Address opportunities for Country relative to arrival and journey across the site.
- Reinforce support in placing the CSB to south of site, which provides an appropriate contextual approach.
- Consider pedestrian experience from car parking.

Connection with Country (led by Yerrabingin)

Who: Yerrabingin, HI, First Nations Community representatives, Hassell, Johnstaff

A Design Jam is a collaborative process bringing together the knowledge and minds of people from all walks of life; the local Aboriginal community, Yerrabingin team, as well as the design/project team and client.

- Design Jam 1 21/06/2023
- Design Jam 2 06/09/2023
- Design Jam 3 08/06/2024

Key topics/outcomes discussed

- Identification of design elements which can contribute to connection/ caring for Country in a healthcare setting.
- The Design Jam produced several rapid prototypes for broader testing. These are tested by cultural protocols and project principles developed in the workshop.
- The Design Jam highlighted the importance of context, representation, movement and programming, education, community engagement, and cultural representation in shaping the future of the Albury Wodonga Regional Hospital Project.
- Design Principles
- Design Narratives

Refer to Section 8 and Appendices for detailed discussion.

Project Community Advisory Group (PCAG)

Who: AWH, HI, Hassell, Johnstaff, Community representatives

- PCAG 29/02/2024
- PCAG 06/06/2024

Key topics/outcomes discussed

- Community identity
- Community needs
- Welcome and entry
- Patient needs
- Gathering
- Needs of children and families
- Cultural diverse approach to care
- Considerations around ambience and noise

The design team will continue to explore and envelope themes expressed by the community and, in due course, will present back how these have been incorporated.

Local Stakeholder Groups

Who: Various local stakeholder groups, AWH, HI, Hassell, JohnStaff

- Multiple briefings for local stakeholder groups over the course of the phase

Key topics/outcomes discussed

- Project status
- Discussion of master plan framework and elements on-site
- Impact to neighbouring buildings
- Impact of construction to residents

- Key elements are located as per the Master Plan
- Further consultation to occur in future phases, with additional information
- Construction methodology to be developed

2.4

DOCUMENT

REVIEW

The following project specific documents were reviewed as part of this phase.

	Description	Author	Date
1	Albury Wodonga Health Feasibility Study Report	STH	Aug 2018
2	Albury Scheme Design Report Emergency Department	STH	Feb 2021
3	Clinical Services Plan 2021	Albury Wodonga Health	Feb 2021
4	Condition Assessment and Investment Plan	AECOM	May 2021
5	Albury Wodonga Health Master Plan	Conrad and Gargett	Dec 2021
6	Bushfire Report	CR Bushfire	Feb 2022
7	Site Survey	Walpole surveying	April 2022
8	Site Survey	BRT Consulting	June 2022
9	Clinical Services Plan Appendix + Vision	Albury Wodonga Health Service	July 2022
10	Clinical Services Plan Review	Albury Wodonga Health Service	July 2022
11	Albury Wodonga Health Service Master Plan Review Report Hassell		July 2022
12	Albury Wodonga Health Service Master Plan Addendum	Conrad and Gargett	Aug 2022
13	Albury Acute Inpatient Mental Health Unit - Schematic Design Report	Bamford Architects	Oct 2022
14	Albury Campus - Master Plan Report	Hassell	2023
15	Albury Wodonga Regional Hospital Project - Endorsed Functional Design Brief	NSW Health Infrastructure	2023
16	State Design Review Panel Advice Letter	GANSW	2023

SECTION 3

SERVICE PLANNING

SUMMARY

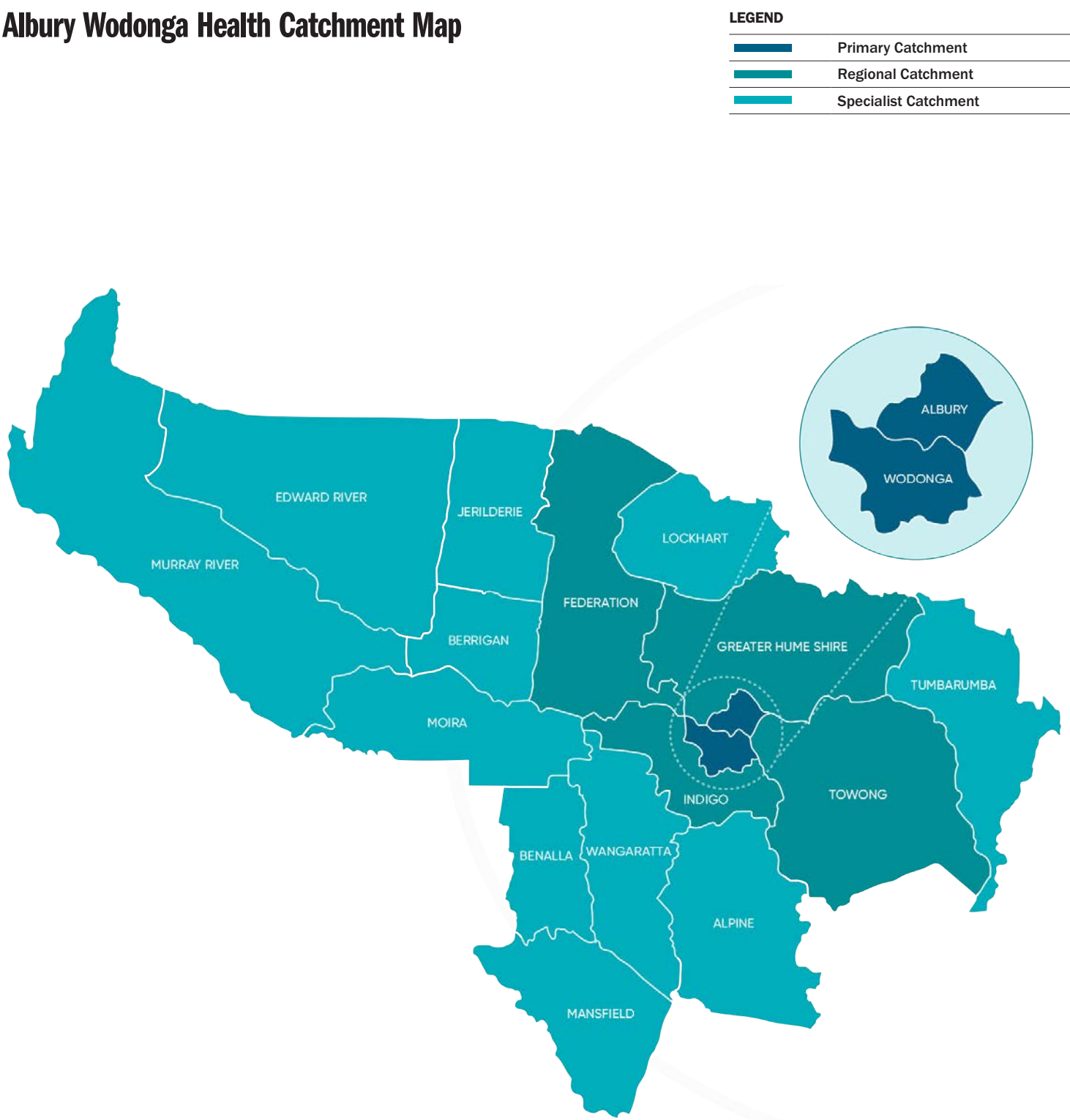
3.1

SERVICE STATEMENT

The Albury Wodonga Health Service (AWH) provides acute, sub-acute, mental health, maternity, paediatric and ambulatory care services to the cross-border communities of Wodonga, Albury and the surrounding rural and regional communities. It operates under the jurisdiction of the Victorian Department of Health, joint-funded by the New South Wales and Victorian State Governments, guiding the funding of the health service.

The catchment for services varies by the type of service, with the municipalities in the North-east of Victoria/southern NSW as its catchment area, with most of the demand arising from the population of Albury and Wodonga, and lesser levels of demand from the “Regional” and “Specialist” catchment areas. Services are provided from 17 sites across North East Victoria and Southern New South Wales. AWH manages a range of community based mental health residential facilities and community health centres. This catchment is illustrated in the adjacent diagram.

Albury Wodonga Health Catchment Map



Source: AWH Annual Report 2022

3.1 SERVICE STATEMENT

The infrastructure scope for clinical services required to meet demand to 2031/32 has been documented in the Albury Wodonga Clinical Services Plan, August 2022 (CSP), and correspondence from NSW Ministry of Health in July 2023 confirming the points of care with a subsequent addendum received on August 2023 with updated agreed scope between NSW Ministry of Health and the Victoria Department of Health for the ED, day surgery and ICU. The CSP excludes ambulatory care and mental health.

The CSP has been developed in alignment with Victorian Health planning framework for 15-year Projections. NSW Ministry of Health clinical service plans use 10-year projections. This Project is based on the NSW 10-year planning horizon with the exception of the ED which has a planning horizon to 2037 as agreed between NSW and Victoria Health. The projections outlined in the correspondence from the NSW Ministry of Health have been endorsed through Project governance. These projections were used to inform the service prioritisation and scope options analysis and are reflected in the scope table.

Mental Health

The Project scope for the Albury adult acute mental health inpatient unit has been informed by the AWH Mental Health Service Plan, September 2021, and is funded through the NSW State wide Mental Health Infrastructure Program (SWMHIP). The budget and scope for mental health has been included in the AWRH Project scope allowing for the incorporation of the inpatient unit into the redevelopment as an integrated service, in alignment

with recent mental health infrastructure projects and contemporary models of care.

The NSW Budget 2022-23 allocated \$3 million to establish a 6-bed mental health alcohol and other drug hub co-located with the ED to treat and manage presentations requiring a multidisciplinary emergency, drug and alcohol and mental health skill set. The funding allocation was made in response to a Capital Investment Proposal (CIP) submitted by AWH in 2021 for a Crisis Assessment Unit. The proposal was developed to align with a model of care in acknowledgment that ED's are often the first place people will present for help with mental health and/or alcohol and other drug issues and the care environments and models of care within the ED are inadequate to respond to the needs of this patient cohort. The budget and scope for this service has been included in the AWRHP Project and aligned with the Project programme.

Ambulatory Care

A separate service planning activity commenced in Q3 2023 for ambulatory care and community services in the context of re-imagining the future of the Wodonga campus. This planning activity occurred concurrently with the feasibility planning. The Wodonga Entity Service Plan (ESP) has been developed in parallel with the project and has been used has been used by Victoria Department of Health (DoH) to confirm the points of Care required for ambulatory care.

To progress feasibility with a level of certainty for ambulatory care, identified as a high priority for AWH, the project

utilised the available 2019 data from the draft Albury Wodonga Health Clinical Service Plan, 2021 to ascertain the 30 points of care required to meet future activity in the service. The ambulatory care scope was endorsed through governance as part of the preferred option and formed the base case for feasibility.

Emergency Department

An expansion of the Albury ED with 34 points of care was commissioned in Q1 2024 with a new short stay unit with 16 points of care to be commissioned in Q3 2024. Projected scope for the ED to 2037 was endorsed through governance supporting a total of 50 points of care which requires this project to provide up to 16 POC. Modelling to support this further planning horizon includes consideration of all emergency medicine activity across the health service, including that which may flow through other service models such as an urgent care service.

In addition to the project scope, a future expansion zone has been identified to provide 16 acute points of care.

Base Case Scope

	Current	CSP/scope	Gap	Project Scope	
Acute Inpatient Units					
Acute IPU's (Total)	141	227	86	84	New
Acute IPU's (Albury)					
Acute IPU - Existing (Med 1)	30			109	Existing
Acute IPU - Existing (Med 2)	29				
Acute IPU - Existing (Surg 1)	20				
Acute IPU - Existing (Surg 2)	30				
Acute IPU - Existing Wodonga	22				
Acute IPU - AWRCC (AWH Med 3)	10				
Acute IPU – Existing Paeds at Albury				16	Existing
Total	141	227		209	
Critical Care					
ICU / COU	12	12	0	12	New
ED	34	50	16	14	Refurb
ED Short Stay Unit	16	16	0	0	Existing
Mental Health					
Mental Health	24	32	8	32	New
Mental Health Alcohol and Other Drugs	0	6	6	6	New
Women's and Children's					
Maternity (Wodonga)	24	23	-1	24	New
Birthing (Wodonga)	6	6	0	6	New
Neo nates (Wodonga)	18	14	-4	14	New
Paediatrics (Albury)	16	16	0	16	New
Interventional					
Theatres Albury	4	10	3	7	New
Theatres Wodonga (retained, no works)	3			3	Existing
Day Surgical (recovery 2/3) Albury	25	25	7	25	New
Day Surgical (recovery 2/3) Wodonga		7		7	Existing
Cardiac Cath Lab (CCL)	1	1	0	1	New
Endoscopy (Wodonga)	2	2	0	2	Existing
Ambulatory Care					
Ambulatory Care	12	30	18	30	New
Renal	9	17	8	TBC	
Medical Day Stay	7	11	4	12	New
Sub-Acute Wodonga Hospital					
(Growth enabled by relocations/no refurbishment)					
GEM	8	21	13	21	Existing
Palliative Care	2	3	1	3	Existing
Rehabilitation	20	24	4	24	Existing

3.1 SERVICE STATEMENT

Existing Albury Hospital Services to remain:

- Emergency Department: Recently expanded, with plans for a further 14 acute bays in the future as part of refurbishment works.
- Interventional Suite: Features 4 theatres, 1 cardiac cath lab, and CSSD, with operational compliance works being undertaken by AWH 2025/2026 per AS4187. CSSD expansion will be coordinated with the Early Works for this project. Both the interventional and CSSD services will be relocated and expanded in the new CSB.
- Critical Care: Consists of 12 ICU beds to be relocated to the new CSB.
- Ambulatory Services: Includes an Allied Health Unit and 6 medical consult spaces (6 cardiac consult rooms and 2 PAC consult spaces). These services will be initially

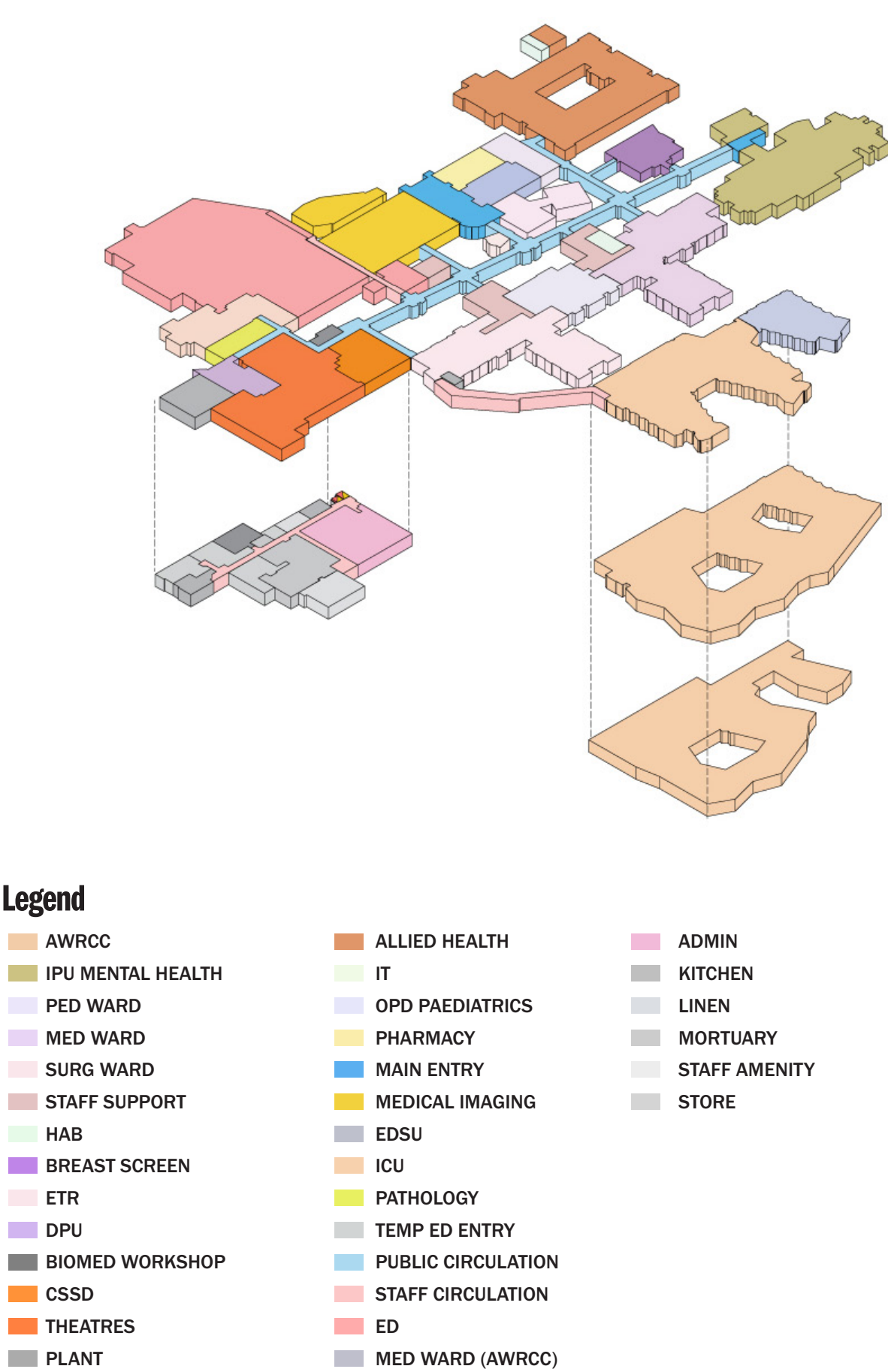
relocated as part of the early works to clear the site for the new CSB and then relocated and expanded as part of the new CSB works.

- Women’s and Children’s Services: Currently includes a Paediatrics IPU with 16 beds co-located with Medical and Surgical IPU services. The new CSB will house Paediatrics co-located with Birthing and the Special Care Nursery.
- Acute Overnight Beds: Currently, there are 115 beds in Albury, including oncology beds in AWRCC. These will remain. The new CSB will provide an additional 84 beds across three 28-bed Inpatient Units.
- Mental Health Unit: Nolan House has 24 inpatient beds. Nolan House will be demolished (once MH services completed, commissioned and patients relocated) to make way for the new forecourt entry and additional on grade carpark. The new CSB will include an integrated Mental

Health IPU unit. A new Mental Health Alcohol and Other Drug (MHAOD) unit will be provided as part of refurbishment works.

- Support Services: Includes Medical Imaging, Pharmacy, Pathology, Staff Administration services, and Staff Amenities. Medical Imaging, Pharmacy and Pathology will be expanded as part of the refurbishment scope of works. Back of House services – on the lower ground floor with kitchen, linen, stores, mortuary services, staff amenities, medical records to remain as per existing. Some minor works at BOH/loading dock related to waste management and storage will take place.

Existing Albury Hospital Departments



3.2

FUNCTIONAL RELATIONSHIPS

The scope of the Albury Wodonga Regional Hospital project includes the following key components:

- 7-storey Clinical Services Building (CSB) housing Acute services.
- Refurbishment and reuse of existing departments within the current hospital.
- Northeast Building, part of the early works scope.

During the Concept Design Phase, clinical adjacencies were assessed and refined. The diagram on this page illustrate the clinical relationships developed for the Block and Stack of the new build, along with the key relationships and links to existing and refurbished zones/departments.

Key Considerations for the Block and Stack of Departments:

- Secure staff/patient/logistics circulation corridor connecting the new CSB to the existing Emergency Department, Medical Imaging and Back of House services.
- Partial retention of the existing central corridor, including mixed-flow transfers from the ED and the new CSB into the existing inpatient unit (IPU) wards.
- Key horizontal links or transfers between various buildings such as CSB and Medical Imaging, ED and AWRCC, Medical wards and the Relocation Building separating the clinical and public flows within the constraints of the existing building.
- Key vertical links or transfers, enabling patient and clinical discretion, including Mental Health secure entry to Mental Health IPU, Birthing and Maternity, ICU and Theatre.

Summary of the Departmental Arrangement of the Buildings for Project Scope:

- CSB
- Level 0 – Ambulatory care, FOH, Mental Health secure entry, Plant, Engineering
 - Level 1 – Operating suites, Day surgery, Cardiac Cath Labs, ETR
 - Level 2 – ICU, CSSD, Administration, Plant, Engineering
 - Level 3 – Birthing, Special care nursery, Paediatrics
 - Level 4 – Maternity, IPU 3
 - Level 5 – IPU 1, IPU 2
 - Level 6 – Mental Health IPU
 - Level 7 – Plant

Refurbishment

- Level 0 – Medical Imaging expansion, ED expansion - 14 Bays, MHAOD, Pharmacy, Pathology

Northeast Building

- B01 – Education and Training, Staff offices
- Level 00 – Decanted Pharmacy, Allied health, clinical and patient areas noting potential for future use (such as Education and Training) by AWH.

Functional Relationships

	Emergency Department	Emergency Department - Adult SSU	MHAOD Hub	IPU Surgical	IPU Medical	IPU Maternity	IPU Paediatrics	Special Care Nursery	Intensive Care Unit	Same Day Medical Unit	Adult Mental Health Unit	Ambulatory Care / Allied Health	Ambulatory Care Allied Health Gym	Hospital in the Home (HITH) - onsite	Birthing Rooms	Operating Theatres	Cardiac Cath Lab	Procedure Rooms	Stage 1 Recovery	Stage 2/3 Recovery	Transit Lounge	Medical Imaging	Medical Imaging - ED Satellite	Pharmacy	Pathology	Helipad	Front of House	Administration / Executive	Education and Training	Back of House	Pneumatic Tube Access	
Emergency Department		1	1	3	3	3	3	3	3	3	3	2			3	3	3	3				3	3	1	2	3	2	3	3	3	3	1
Emergency Department - Adult SSU				3	3	3			3	3												3	3	2	3	3			3	3	3	2
MHAOD Hub				3					3		2											3			3	3	2	3		3	3	2
IPU Surgical									3				3			2		2	3			3	3		3	3		3	3	3	3	
IPU Medical									3		3		3			3	3	3			3	3		3	3		3	3	3	3	3	
IPU Maternity								2	3		3		3		2	3		3	3		3	3		3	3		3	3	3	3	3	
IPU Paediatric								2	3						3		3	3		3	3		3	3		3	3	3	3	3	3	
Special Care Nursery									3						2	3					2	2	3	2	2	3	2	3	3	3	3	2
Intensive Care Unit										3					2	2	3	3	3			2		2	3	2	3	3	3	3	3	2
Same Day Medical Unit												2	2	2											3	3		3	3	3	3	3
Adult Mental Health Unit																3		3	3			3		3	3		3	3	3	3	3	3
Ambulatory Care (incl. Allied Health)													1	1	2							3	3		3	3		3	3	3	3	3
Ambulatory Care Allied Health Gym														2														3	3	3	3	
Hospital in the Home (HITH) - onsite																						3		3	3		3	3	3	3	3	
Birthing Rooms																2							3		3	3	3	3	3	3	3	2
Operating Theatres																			1	1	3	2		3	3			3	3	3	3	1
Cardiac Cath Lab																						1	3	2	3	3		3	3	3	3	2
Procedure Rooms																			1	1		3		3	3			3	3	3	3	2
Stage 1 Recovery																					1											
Stage 2/3 Recovery																						3			3							
Transit Lounge																								2								
Medical Imaging																							3									
Medical Imaging - ED Satellite																								3								
Pharmacy																																
Pathology																																
Helipad																																
Front of House																													3	3	3	
Administration / Executive																														3	3	
Education and Training																															3	
Back of House																																
Pneumatic Tube Access																																

SECTION 4

FUNCTIONAL DESIGN

BRIEF CONTEXT

4.1

FUNCTIONAL

DESIGN BRIEF

Functional Design Brief

Departmental functional design briefs have been developed in consultation with AWH users and endorsed through governance. The functional design briefs align with the Australasian Health Facility Guidelines and outline the following for each department:

- Service Description
- Model of Care
- Specific Operational Policy and Procedures
- Workforce
- Key Change Management
- Functional Relationships
- Service specific design requirements

Outstanding issues noted in the functional design briefs have been documented and escalated through governance for resolution.

Outstanding Functional Design Briefs

List of FDB's awaiting final endorsement are listed below:

- Medical Imaging
- Administration
- ED Scope of works

Administration: The health service is currently reviewing their office accommodation policy, its long-term office accommodation strategy which will inform the departments that require to be accommodated in the administration space. Early indications from the health service are that they are supportive of a flexible working environment. Feasibility has proceeded based on high level assumptions regarding the spatial requirements and flexible working strategies. Final endorsement is to be sought in-line with recent projects.

ED scope of works: The scope of works for the ED has been paused while the health service establishes the types of points of care required in the allocated 14 bed scope. The area allocated has been tested for 14 acute bays with appropriate support areas.

<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Allied Health</div> <div>Functional Brief</div> <div>19/11/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Central Sterilising</div> <div>Functional Brief</div> <div>23/11/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Education, Training and Research</div> <div>Functional Brief</div> <div>19/12/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Front of House and Security</div> <div>Functional Brief</div> <div>01/10/2023</div> <div>NSW GOVERNMENT</div>
<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Intensive Care</div> <div>Functional Brief</div> <div>27/10/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Inpatient Unit</div> <div>Functional Brief</div> <div>23/11/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Maternity Services</div> <div>Functional Brief</div> <div>27/10/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Pharmacy Department</div> <div>Functional Brief</div> <div>21/10/2023</div> <div>NSW GOVERNMENT</div>
<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Paediatric Inpatient Unit</div> <div>Functional Brief</div> <div>26/10/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Transit Lounge and Patient Flow</div> <div>Functional Brief</div> <div>21/08/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Perioperative Unit and Interventional Services</div> <div>Functional Brief</div> <div>23/11/2023</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Special Care Nursery</div> <div>Functional Brief</div> <div>24/10/2023</div> <div>NSW GOVERNMENT</div>
<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project- Pathology</div> <div>Functional Brief</div> <div>17/11/23</div> <div>NSW GOVERNMENT</div>	<div>HEALTH INFRASTRUCTURE</div> <div>Albury Wodonga Regional Hospital Project Mental Health Inpatient Unit</div> <div>Functional Brief</div> <div>14/11/2023</div> <div>NSW GOVERNMENT</div>		

4.2

SCHEDULE OF ACCOMMODATION (SOA)

The Australasian Health Facility Guidelines (AusHFG) has informed the development of the Functional Design Briefs and therefore, the Concept Design.

The aims of the AusHFG are to:

- Assist with the design of safe health facilities that provide privacy and dignity for patients
- Support contemporary models of care and the needs of carers, visitors and staff
- Maintain public confidence in the standard of health facilities
- Achieve affordable solutions for the planning and design of health facilities
- Promote built solutions that minimise recurrent costs and encourage operational efficiencies.

The AusHFG Health Planning Units have been utilised in the establishment of the Functional Design Briefs. With the briefing and consultation phases undertaken by JSP and in consultation with the AWHs user groups (PUGs), hence capturing the AWH requirements and aligning with the AWH models of care.

Given the AusHFG updates that are occurring, with the current reviews of components of the AusHFG, the project and JSP has incorporated updates as necessary and as known to the current phase.

The project team notes the 'Design Guidance Note NO.062 – COVID-19 Design Impacts.' This document has informed the briefing and design for the project.

Given the changing environment and health care requirements during this period, this item and DGN will be monitored over the next phases. Further direction and advice from the HI advisory team will be sought including during the next phases, including for guidance, updates and review of any project (change) requests generated by COVID-19.

At this stage of the project no AusHFG variations have been identified during the FDB process and AWHs endorsement.

Relevant SOA on the following pages:

- Decant/Early and enabling works for the Northeast Building SOA V0.11
- Main works CSB and refurbishment SOA V0.12

AWRHP Decant SoA - Refer to Chapter 10 Appendices

Service	Workstation	NET	IDC	%*	GDA On= Site	Comment
Executive Office	28				0	
Medical Records	13				0	
Cardiac Outpatients and Albury Specialists	3	108	35	32%	143	
CRC and Cognitive dementia	15	68	22	32%	89	
AH-offices	84	509	127	25%	636	* A mix of offices and W/S
AH Therapy Space		455	145	32%	600	
Library/CNEs	13	231	35	15%	265	
Pharmacy	17	238	60	25%	298	* A mix of offices and W/S
Medical Lounge	4	26	7	25%	33	
Wardspersons	1	12	2	25%	14	
Surgical Services (Managers)	4	5	23	25%	23	
Clinical Support	6	72	23	32%	95	
Medical Directorate(Nurse manger medicine demand access)	3	14	3	25%	17	
IT	7	41	10	25%	51	
Amenities		30	5		35	
Medical Workforce	18	81	20	0	101	
Nursing Workforce	3	14	3	25%	17	
Total		1900	519		2,414	
		T&E 2 storey	23%		555	2,970
		T&E 3 storey	28%		676	3,090

*Australasian Health Facility Guidelines Part C – Recommended intra-departmental circulation rates

4.2

SOA SUMMARY

AWRHP Project Scope SoA - Refer to Chapter 10 Appendices for full SoA

Stay Type	Type	No	Courtyard	Net	Circulation	Gross	Build Assumptions	Comments
ACUTE								
	Inpatient Unit 1	28		873	332	1205	New Build	
	Inpatient Unit 2	28		818	311	1129	New Build	
	Inpatient Unit 3	28		859	327	1186	New Build	
	Inpatient Unit 4	28		0	0	0	No works	
Sub-Total		112		2551	969	3521		
WOMEN AND CHILDREN								
	Maternity IPU	24		828	248	1076	New Build	
	Birthing	6					New Build	
	SCN	14		631	221	852	New Build	
	Paediatrics	16	20	851	298	1149	New Build	
Sub-Total		60		3124	1052	4176		
MENTAL HEALTH								
	Mental Health	32	270	1723	551	2274	New Build	
	MHAOD	6	45	303	83	341	Major refurb	
Sub-Total		38		2026	634	2615		
SUB ACUTE								
	Rehabilitation IPU 1	24		0	0	0	No works	
	GEM and Palliative Care	24		0	0	0	No works	
Sub-Total		48		0	0	0		
CRITICAL CARE								
	Emergency - Treatment	14		238	71	309	Major refurb	
	ICU	12	50	923	323	1245	New Build	
Sub-Total				1160	394	1554		
INTERVENTIONAL								
	Operating Suites	7		1455	582	2037	New Build	
	Day surgery/Stage 2	25		573	229	802	New Build	
	Endoscopy	2		0	0	0	No works	
	Cardiac Cath	1		228	73	300	New Build	
	CSSD	1		616	154	770	New Build	
Sub-Total				2871	1038	3909		
AMBULATORY CARE								
	General and Allied Health	30		1536	491	2027	New Build	
	Medical Day Stay	12					New Build	
Sub-Total				1536	491	2027		

CONTINUED ON NEXT PAGE...

4.2

SOA SUMMARY

CONTINUED: AWH SOA v0.12 - 24.05.24								
Stay Type	Type	No	Courtyard	Net	Circulation	Gross	Build Assumptions	Comments
CLINICAL SUPPORT								
	Medical Imaging			358	132	490	New Build	
	Pathology			648	162	810	Major refurb	
	Pharmacy			493	123	616	Major refurb	
	Transit						No works	
	Medical Records						No works	
	Education and Research			471	118	588	New build	
Sub-Total				1969	535	2504		
ADMINISTRATION AND SUPPORT								
	Executive and Administration			0	0	528	New Build	
Sub-Total				0	0	528		
MENTAL HEALTH								
Overnight	Front of House and Security			318	80	398	New Build	
	BOH - Shared Staff Amenities and EOT					0	No works	
	Kitchen						No works	
	Mortuary						No works	
	Stores, Dock, Waste, Linen and Cleaning						No works	
	Engineering & Maintenance						No works	
	Clinical Engineering						No works	
	Equipment Store						No works	
	Equipment Loan Pool						No works	
Sub-Total				318	80	398		
TOTAL (excl. T&E)						19,832		(inc circulation) Excludes refurb
T&E. 36%						7,140		(inc circulation) Excludes refurb
Total Area inc. Circ, T&E						26,972		
Planning contingency 10%						2,697		
TOTAL			385			28,370		"Assume T&E based on New Build only. Total gross includes refurb Total Gross excludes outdoor areas"

SECTION 5

MASTER PLAN CONTEXT

5.1

SITE MASTER PLAN

The Albury Wodonga Regional Hospital Project Master Plan guide the current project scope and future expansion on the campus, enabling future stages to sit within a broader vision and framework. The Master Plan aims to enhance the existing character of the site, improve Albury's social and economic positioning as a regional centre for excellence, and create a resilient and long-lasting legacy for the provision of health services in this community.

In considering the future redevelopment of the hospital site the framework for the master plan has been developed around the following key themes:

- Provide a clear and legible series of routes and landscaped public spaces that build upon the landscaped character of the existing hospital courtyards.
- Reinforce connections to landscape, both within the site and to the topography of the surrounding hills.
- Retention and reinforcement of the 'green' street edge that defines the frontage of the site.
- Respecting the importance of Eastern Hill, including views from Borella Road.
- Considering the silhouette of built form against the backdrop of Eastern Hill.
- Improved identity of the hospital and acknowledgement of "civic nature".
- A framework that establishes potential "precinct" opportunities.
- Maintaining views from the Inpatient Units of the Cancer Centre toward the North and providing sufficient space for the building to 'breathe'.
- Establishing a network of routes and connections through the site that increase porosity, connections to the surrounding street network and public transport; opening up the precinct to the wider community.

- Providing flexibility both in the medium and longer term to allow the integration of a range of future buildings and uses that provide a diversity to the hospital precinct.
- Placing larger scaled buildings toward the South of the site to reduce overshadowing of public realm and the visual impact along Borella Road and existing neighbouring residential properties.
- Retention, contributing to the health service's long-term operational sustainability.
- Connectivity beyond site boundaries: The master plan emphasises the importance of providing connections across the campus and enabling these to tie in with the connectivity of the broader precinct.

Design Principles

Through a design process with Health Infrastructure, Victoria Health, AWH and other key stakeholders, the endorsed Master Plan outlines the following key principles, 6 of which are clinical and 4 precinct based:

- Consolidation and co-location of acute services
- Place of healing and wellness
- Support and highly skilled workforce
- Consideration and utilisation of existing assets

- Clear, intuitive wayfinding
- Adjacencies to support efficient delivery of clinical service
- Partnerships
- Flexibility and future proofing
- Sustainable design
- Contextually responsive design

Connecting with Country

The Albury Wodonga Regional Hospital project offers an opportunity to celebrate the all-encompassing nature of Country with its infinite reach into and across the earth and into the sky. The narratives developed for the project have been based on the information about the region discussed in Yerrabingin's Desktop Research Report and during community consultations. In relation to the Connecting with Country framework, which outline narratives and storylines to guide the project:

- Living River Country
- Healing Country, Healing People
- Life of the River Red Gums

Design principles have been established by Yerrabingin, who have lead the engagement and consultation process. These principles provide a basis of cultural care and well-being; they are:

- Well-being journey
- Places of Rest and Recovery
- Sensing Country

Landscape Principles

The landscape design approach builds on the above mentioned principles to form an approach that is cohesive and grounded within its architectural and broader context. The landscape design principles are

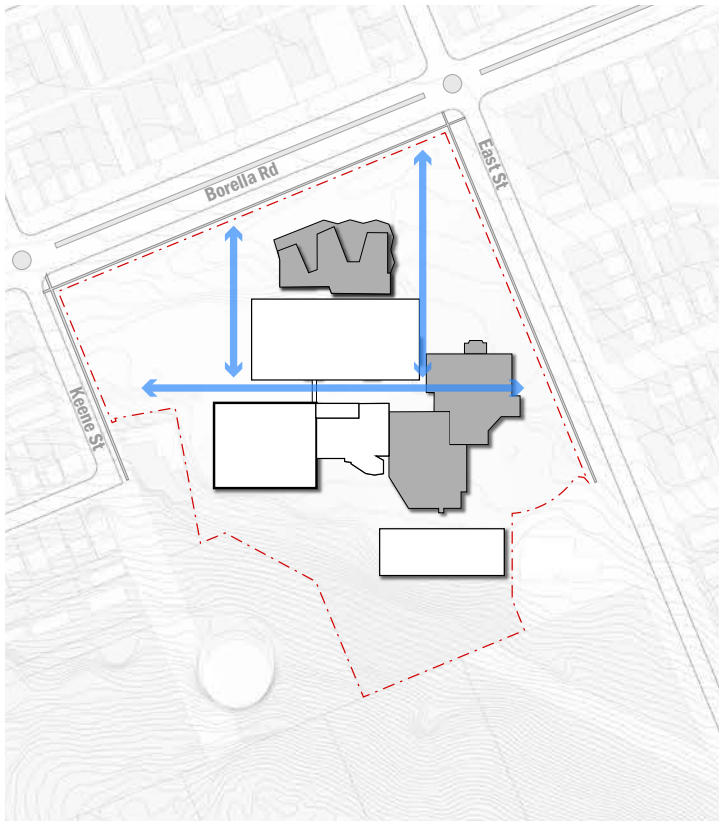
- Gardens that support healing and wellness
- Planting that reflects the site and its context
- Support a larger landscape
- Treat and hold water
- Respect sight lines and topography

Refer to the endorsed Master Plan (2023) for further detail

5.1

SITE MASTER PLAN

The following diagrams describe the framework for the proposed master plan based around a series of routes through the site framed by landscape. This framework defines the overall strategy for the organisation of the site both in the immediate and longer term, and informs the physical location of key elements on the site.



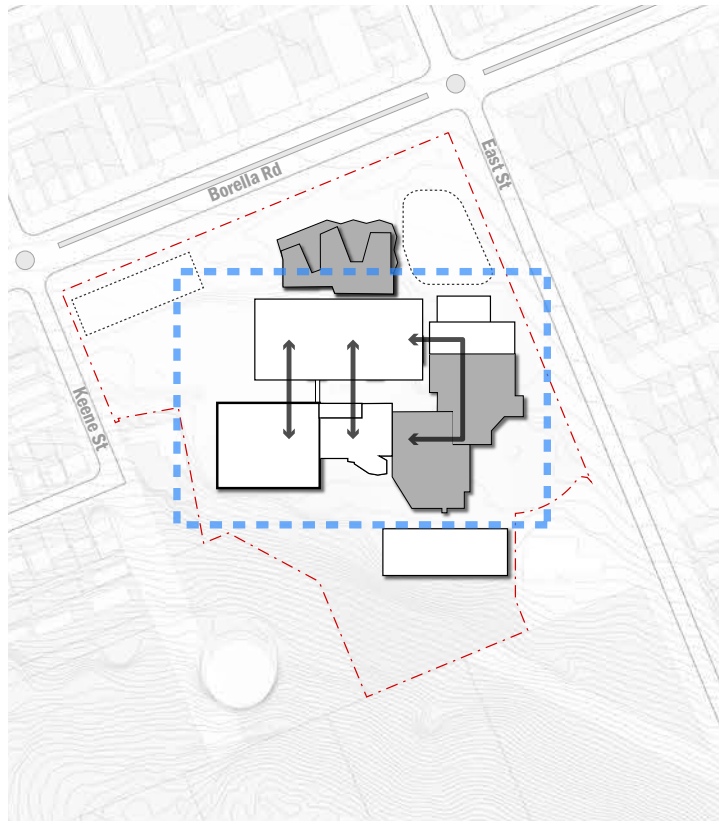
Connected

- Framing a new public identity of the hospital precinct
- Developing pathways that connect North to South, linking Borella Road to the East-Hill Reserve
- Extending green corridors and connections from East to West of the precinct



Access to Nature

- Extending connections to landscape within the campus and beyond
- Incorporating courtyards and gardens throughout the heart of the precinct
- Supporting a larger landscape framework



Enabling Expansion

- Connections extended to broader masterplan
- Establishes flexible framework for growth
- Frameworks sets permeability, connectedness and accessibility

5.1

SITE MASTER PLAN

The Master Plan is a flexible, strategic framework that guides development through future stages. The long term vision can be delivered in a variety of ways, over a number of stages. During Concept Design, work was undertaken to show that the endorsed Master Plan enables the retention of the Emergency Department (now refurbished) and the Northeast Building. This was noted in the Planning and Delivery Committee held in September 2023 as a matter of record.



Adjusted Master Plan 2023 (ED retention)

- As per the endorsed Master Plan:
- CSB development zone is in the south west
 - Staged decant and development of AWH expansions (eg new IPU's north)
 - Future development sites to the Northeast and Northwest
- Difference
- Existing ED retained – capacity to expand at ground to west (adjacent CSB)
 - Research facility development site impacted (due to the retention on ED and BOH services) – possible to include in Northwest as part of future partnerships development
 - Retention of Back of House and ED impacts previously proposed pedestrian cross site campus connections



Incorporation of the Northeast Building

- As per the PDC noted Master Plan, with the addition of the Northeast Building
- Results in an adjusted Future Development Zone
 - Potential to use the Northeast Building in a multitude of ways, including as possible research and ETR

Project Scope has proceeded on this basis

5.1

SITE MASTER PLAN

Project Scope

The outcome that will be delivered as a part of the project scope will fundamentally transform and improve the hospital, and it does so within the framework of the long term Master Plan, which can be achieved through various methods.

The principles of the project scope as it relates to the long term Master Plan are:

- Providing optimal functional and clinical relationships within the existing investment and building constraints in the short term, whilst establishing framework for long term master plan goals.
- Maximising the utilisation of existing building assets, informed by sustainability goals and project budget constraints. Establishes a comprehensive master plan strategy for clear and intuitive wayfinding and balanced distribution of traffic throughout the site by separating entries.
- Significant landscape and public realm gestures to reinforce identity at entry and connectivity between Borella Road and Eastern Hill, connecting to and integrating courtyards within the precinct and connecting the precinct beyond the

site boundaries.

Public

- Public entry to ED is located to the Southeast, from East Street – the existing location - and separates public ED arrivals from the new main entry. The proposal establishes a new public entry from Keene Street on the Western side with forecourt, drop off zone and access to the adjacent northwestern car park. A “ring road” is provided connecting the new main entry and ED entry, providing improved connectivity across the site and facilitating access to the southern car park and a secondary public access to ED entry, should this be required. The approach under the master plan offers the most flexibility across the site to manage presentation loads and will be supported by wayfinding on-site and in the surrounding road network. Public entry to AWRCC is maintained with access to AWRCC existing drop off zone – access to the adjacent public car park zone is also available from main entry.

Staff

- Staff entry is currently co-located with the logistics entry access in the northeastern car park. The master plan retains this access. Existing entry for staff remains via the lower ground entry at the northeast.

Logistics and Back of House

- The logistics entry is maintained in its current location from East Street to the lower ground floor and loading dock.

Multi-storey Car park

- The multi-storey car park will have adequate structural allowances to enable additional car parking levels and the Helipad in the future.

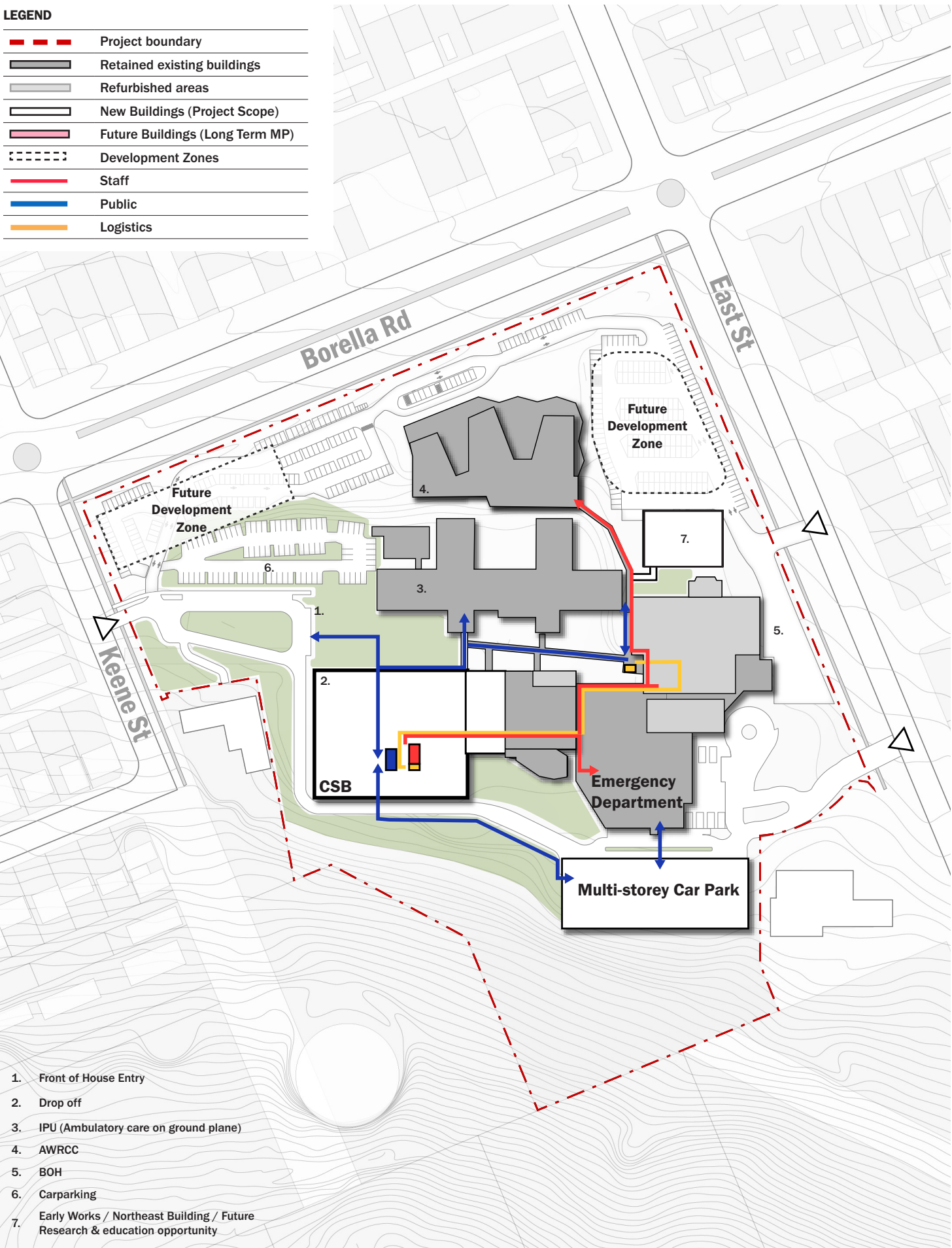
Northeast building

- Initial purpose is to facilitate decant activities for the CSB construction stage
- Will provide opportunities for AWH expansion in the long term

Neighbouring buildings

- Consideration will be given to key neighbouring building, such as Hilltop and UNSW
- There will be impacts to operations both during construction and post completion, which will need to be worked through and supported
- The project will establish safe and equitable access from Hilltop to the hospital

LEGEND	
	Project boundary
	Retained existing buildings
	Refurbished areas
	New Buildings (Project Scope)
	Future Buildings (Long Term MP)
	Development Zones
	Staff
	Public
	Logistics



5.1

SITE MASTER PLAN

Long Term Master Plan

The robustness of the Master Plan framework establishes a long-term strategy, which enables the optimal outcomes for AWH services, encompassing both CSP2032/33 and future partnership opportunities across the site.

- The Master Plan framework envisions the strategic distribution of Inpatient Units and Ambulatory services across the campus, fostering long-term precinct development and creating a cohesive and integrated healthcare environment. This approach promotes accessibility and enhances the overall patient and staff experience within and amongst the landscape.
- The clearance of the Eastern part of the site paves the way for a significant development area, offering opportunities for future private partnerships to establish their own distinct identity and serviceability from East Street. This considered approach ensures the

continued presence and identity of the AWH from Keene Street while also creating possibilities for integrated linkages and connections between the two services.

- The North-West and North-East corners of the site present prospects for future commercial and/or education and training opportunities, with potential linkages to the AWRCC. This strategic positioning opens up avenues for collaborative growth and partnerships within the healthcare ecosystem. Refer also Private Investment Framework of the Master Plan.

- The Master Plan establishes an East-West green connection across the site, facilitating 'Place' improvements and enhancing pedestrian amenity, especially between Keene and East Street. This envisioned green pathway fosters a harmonious and inviting environment, promoting wellness and connectivity for all visitors and stakeholders.

Car Parking

- The multi-storey car park includes structural capacity for additional levels to support increased parking demand in line with future stages of development
- PV structures in the project scope

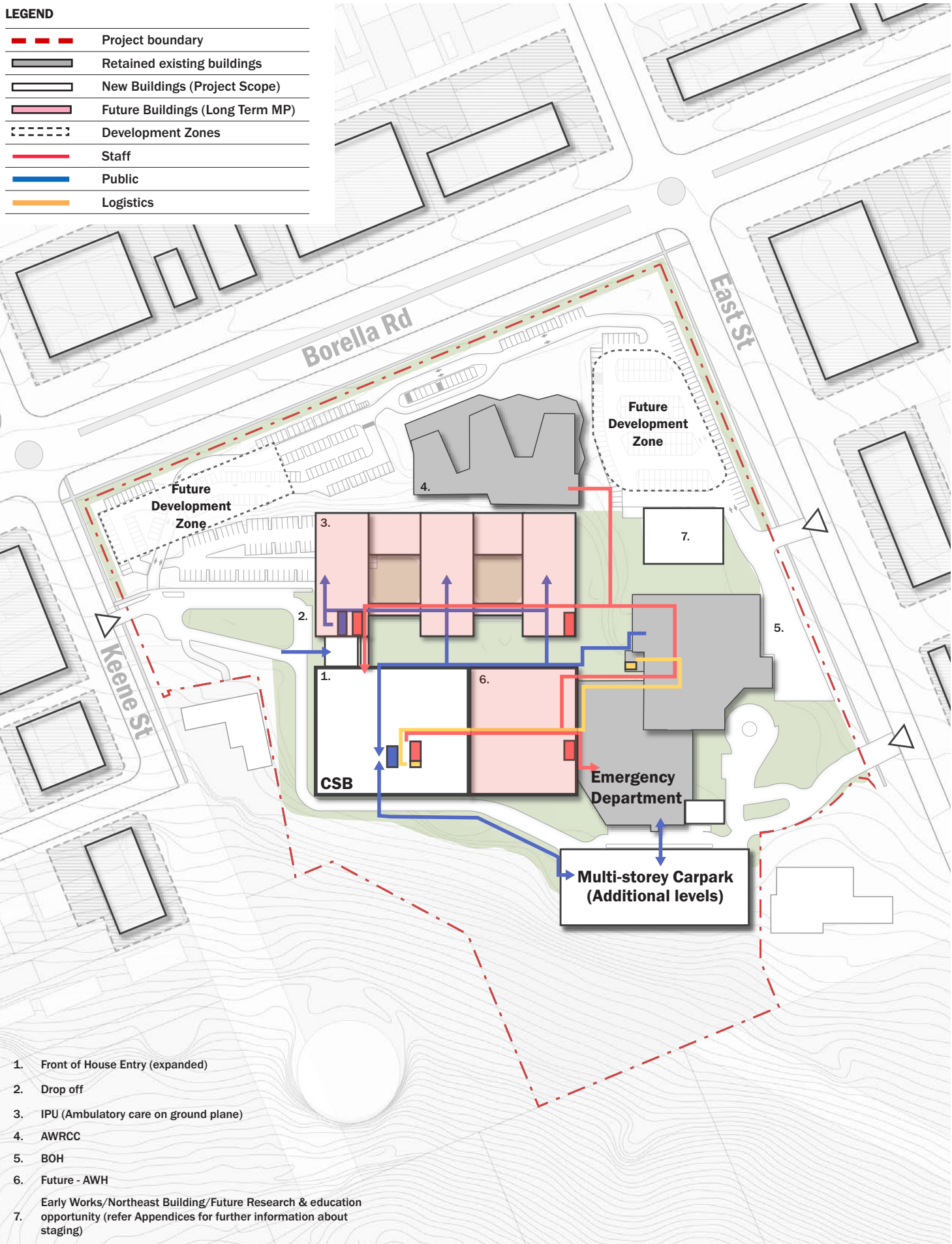
would need to be disassembled, located off-site, and reassembled on top of the additional levels

- The Master Plan also considers the potential for an off-site multi-deck car park opportunities at East Street or Keene Street. This presents a viable solution to cater to the increased demand for AWH services and accommodate potential future partnerships within the health precinct.

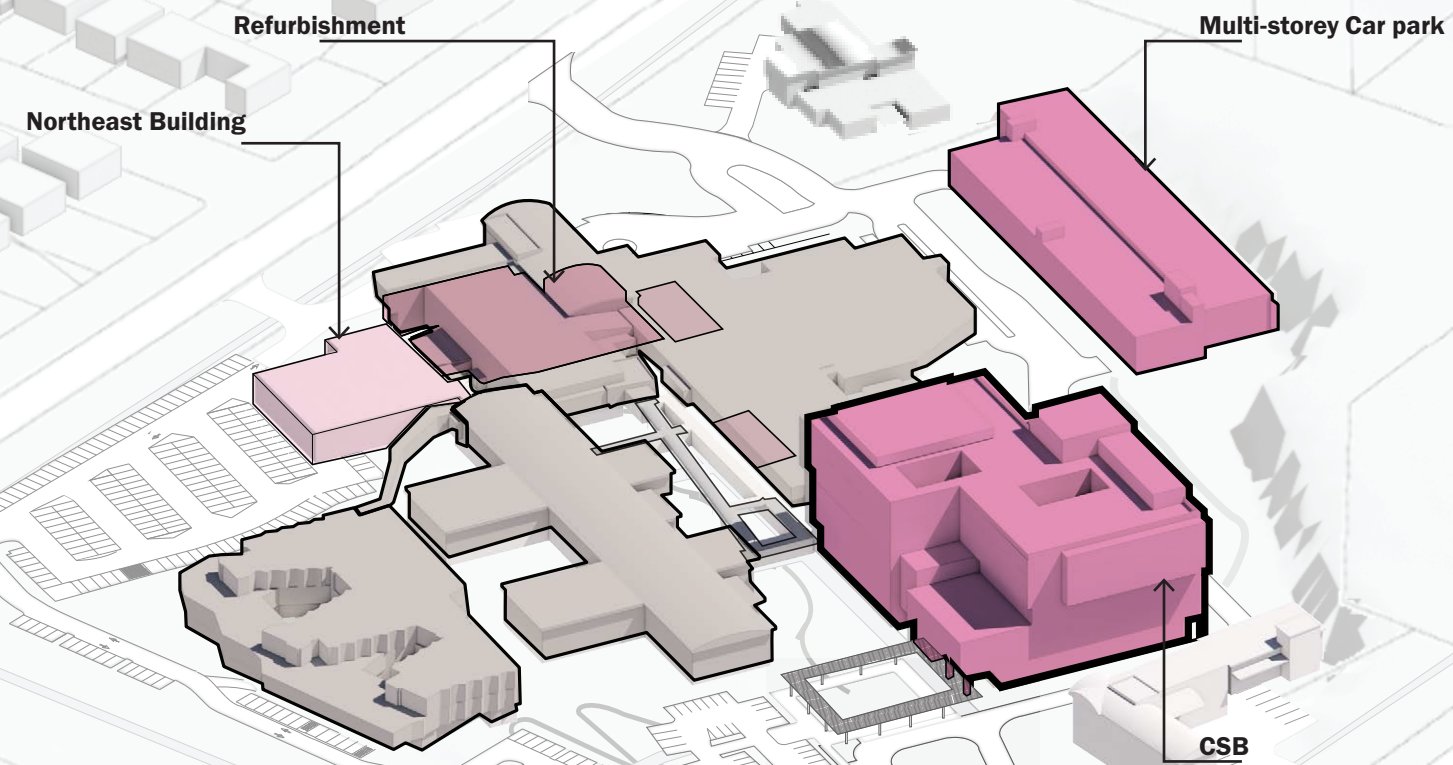
Helipad

- The multi-storey car park has been identified as the location of the helipad in future stages of construction. This stage of development includes structural allowances to support the additional car parking levels and helipad.

LEGEND	
	Project boundary
	Retained existing buildings
	New Buildings (Project Scope)
	Future Buildings (Long Term MP)
	Development Zones
	Staff
	Public
	Logistics



PROJECT SCOPE



LONG TERM MASTER PLAN

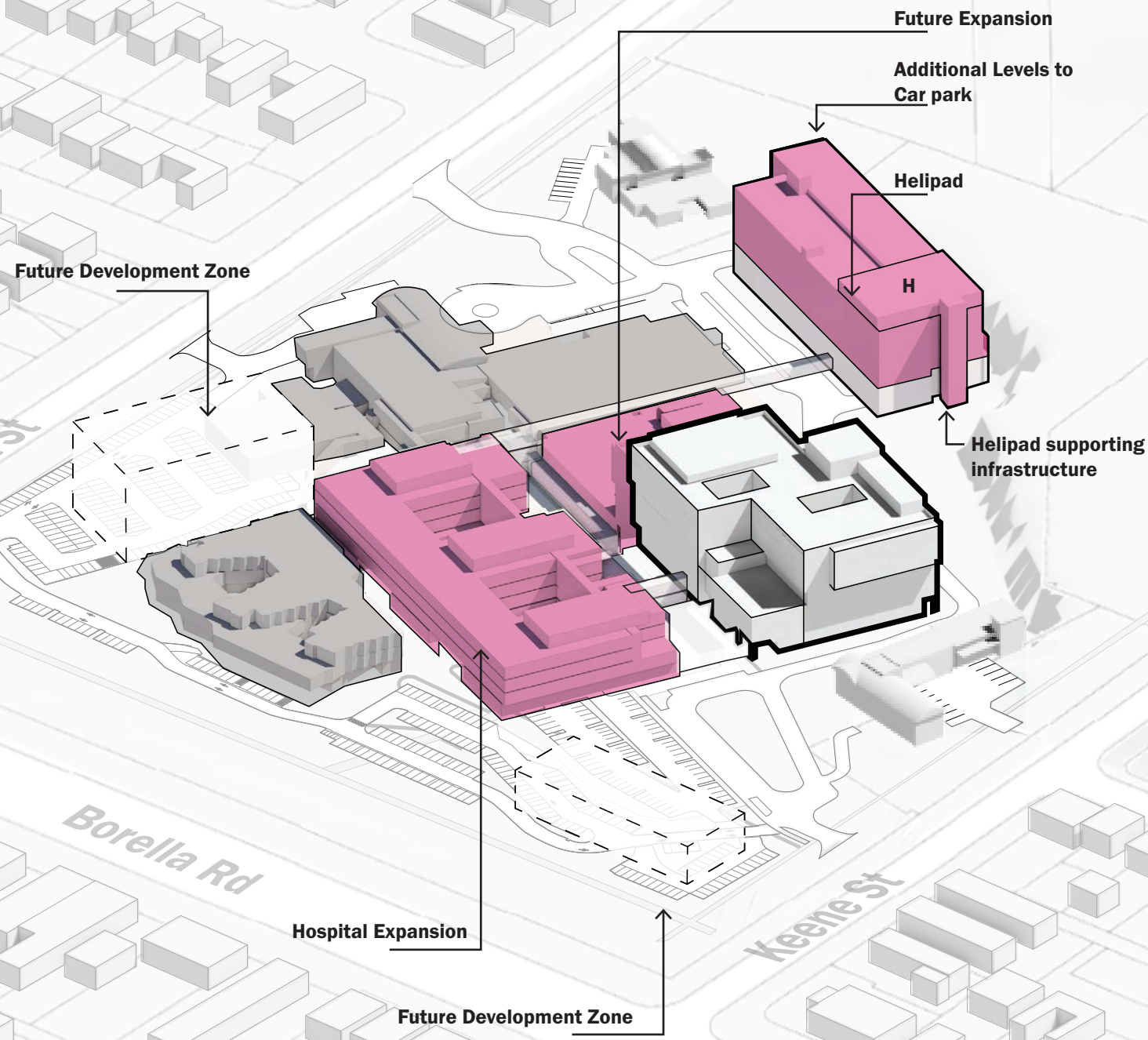





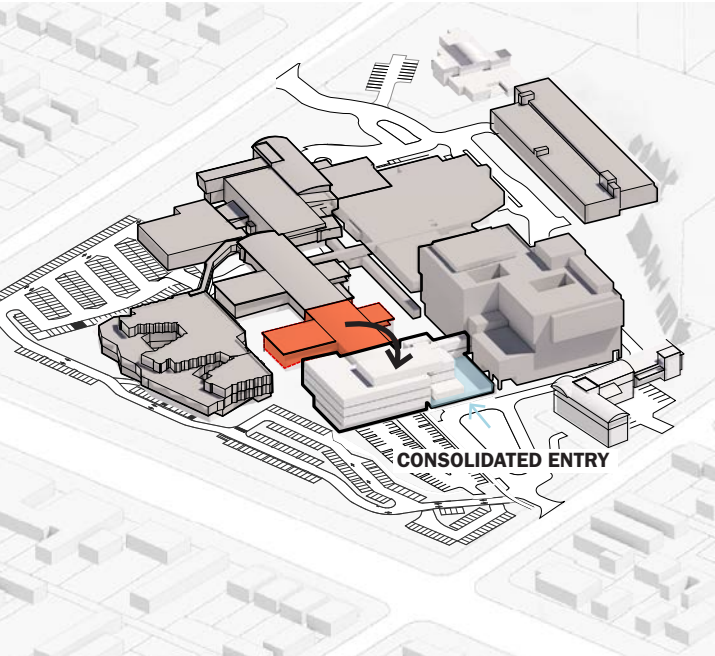


Figure 4. Axonometric overview of the proposed master plan

LONG TERM STAGING

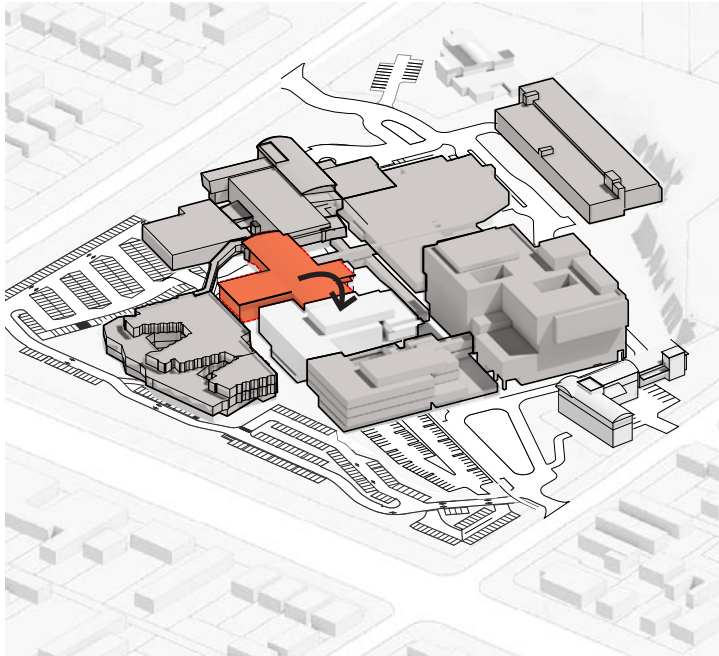
The below series of diagrams describe the long term staging strategy, beyond project scope. Refer to Section 7.11 for Project Scope staging.

LEGEND	
	Existing
	New building
	Early works
	Temporary/site works
	Refurbishment



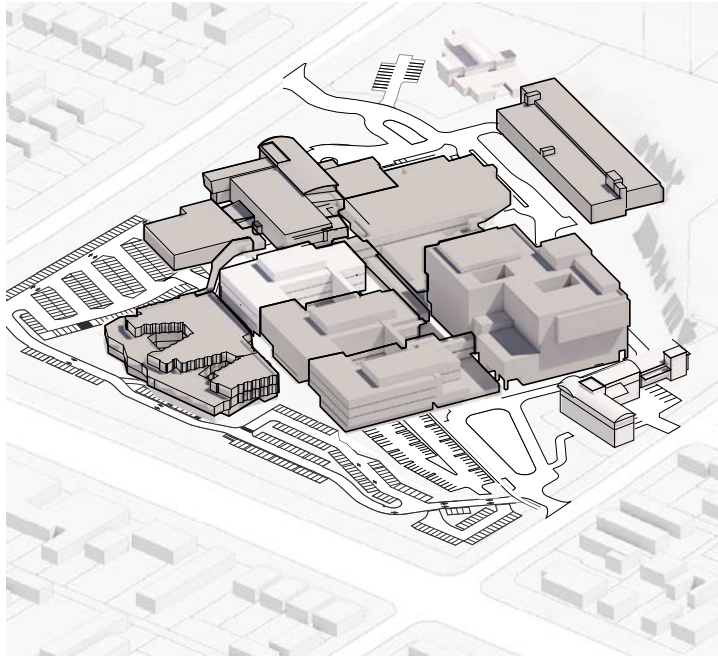
Inpatient Wings Construction and Decant Stage 1

- Construction of the first Inpatient wing in the North West corner, opposite the main Front of house of the CSB.
- Decant 2 wings of the existing Medical Surgical wards into the new Inpatient wing to allow for staged construction of the remaining Inpatient wings.
- Potential to consolidate entry to site.



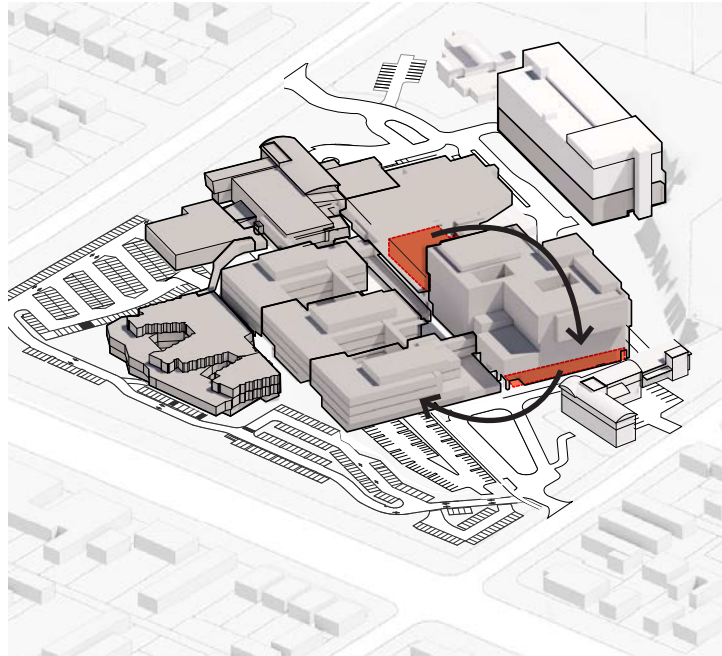
Inpatient Wings Construction and Decant Stage 2

- Demolish the decanted 2 existing medical wards to prepare for construction of the second inpatient wing.
- Decant of the remaining 2 wings of the existing Medical Surgical wards into the new Inpatient wing to allow for the construction of the third and final wing.



Inpatient Wings Construction and Decant Stage 3

- Construct third and final wing. The 3 wings provide accommodation for Ambulatory care and Admin/ETR on the ground plane and Inpatient units (4 new IPU's with a Shell for future expansion) on upper levels for future expansion.
- The zone may be developed as AWH - alternatively as private hospital facilities pending need.

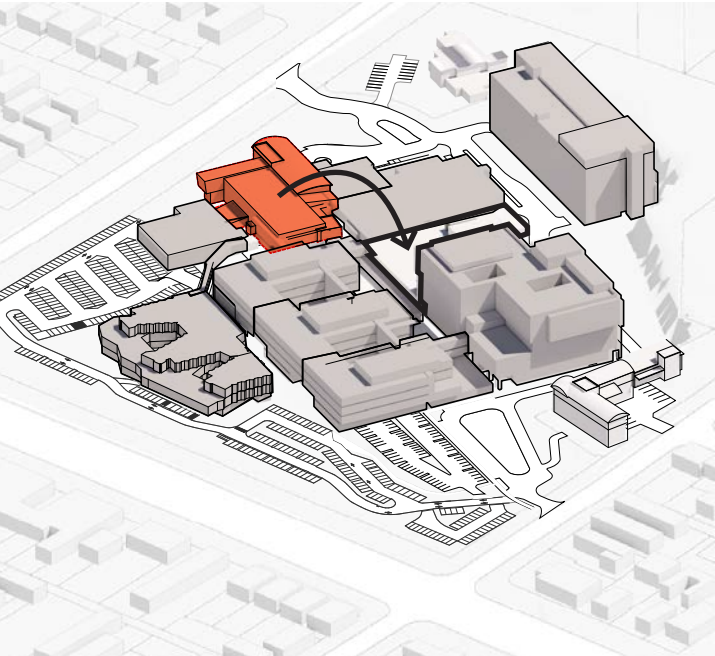


CSB Expansion Main Works Construction

- Decant all the "soft space" including Staff Administration, ETR and Ambulatory departments from the ground floor of the CSB, to ground floor of the newly constructed wings.
- Decant and commission Medical Imaging department in the vacated ground floor of the CSB.
- Demolish existing Medical Imaging department and construct the Eastern part of the CSB.
- Establish a proposed construction staging zone to the South of the development zone, with a construction entry from East Street.
- Establish temporary access between existing ED and the CSB, via existing link, during construction of the CSB expansion.
- Maintain public access to the ED entry and consider temporarily relocating short-term ED car parking to the East of ED if necessary.

LONG TERM STAGING

LEGEND	
<div></div>	Existing
<div></div>	New building
<div></div>	Early works
<div></div>	Temporary/site works
<div></div>	Refurbishment



Expansion of CSB

- Construct the expansion of CSB between existing CSB and ED department. Consideration around site infrastructure, loading and pedestrian movement required
- Ground floor expansion TBC - potential ED expansion, L1 Theatre Expansion, L02 ICU Expansion.



Future Development

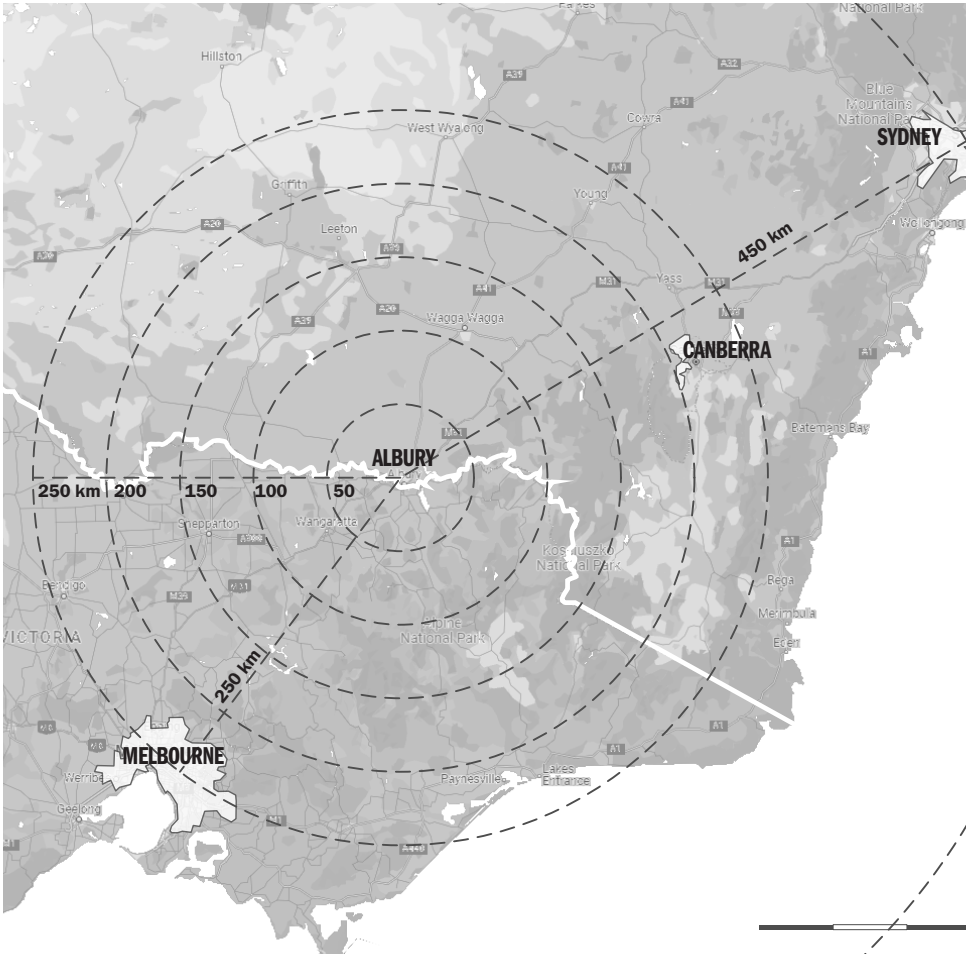
- Opportunity to construct future development in the North East of the site, with potential link connections back to the cancer centre and existing hospital.
- Opportunity to construct future building to the North West, including car park. A range of uses may include, worker accommodation , child care, retail, food and beverage opportunities, GP clinics.
- Note: the master plan is structure in a way that can enable future development to be constructed at any time over the course of the master plan time line, with appropriate site works

SECTION 6

STRATEGIC CONTEXT

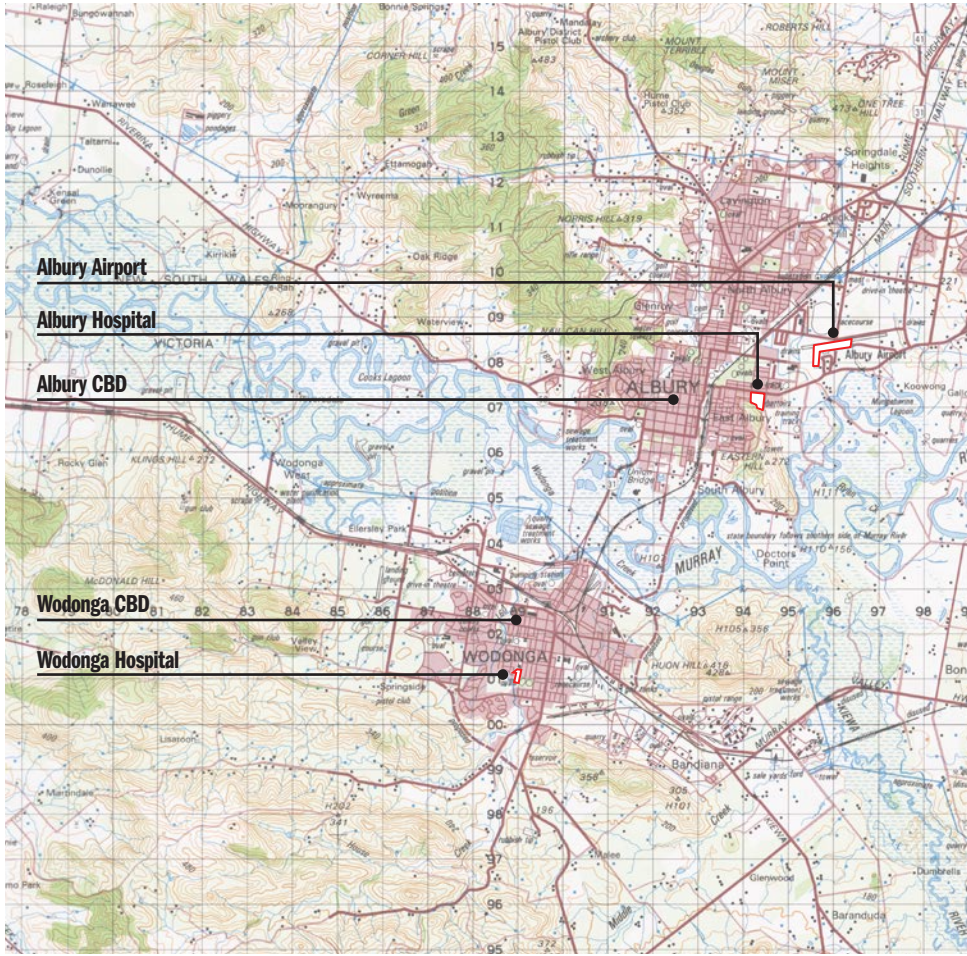
STRATEGIC CONTEXT

Albury Wodonga is recognised as Australia's 20th largest city with a combined population of around 100,000 residents. The cities are strategically located on either side of the Murray River, approximately 300 kilometres North-East of Melbourne and 580 kilometres South-West of Sydney. The twin-cities perform a significant role in the regional economy, with a combined gross regional product of \$7.667 billion (2020).



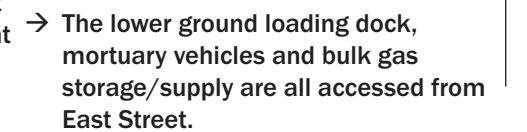
Location

- The Albury Hospital Site is located in NSW on the Northern side of the Murray River approximately 10km/15min drive from the Wodonga Hospital Site in Victoria.
- The major North-South arterial road, the Hume Highway, bisects Albury with the hospital site located to the East of the highway.



Albury

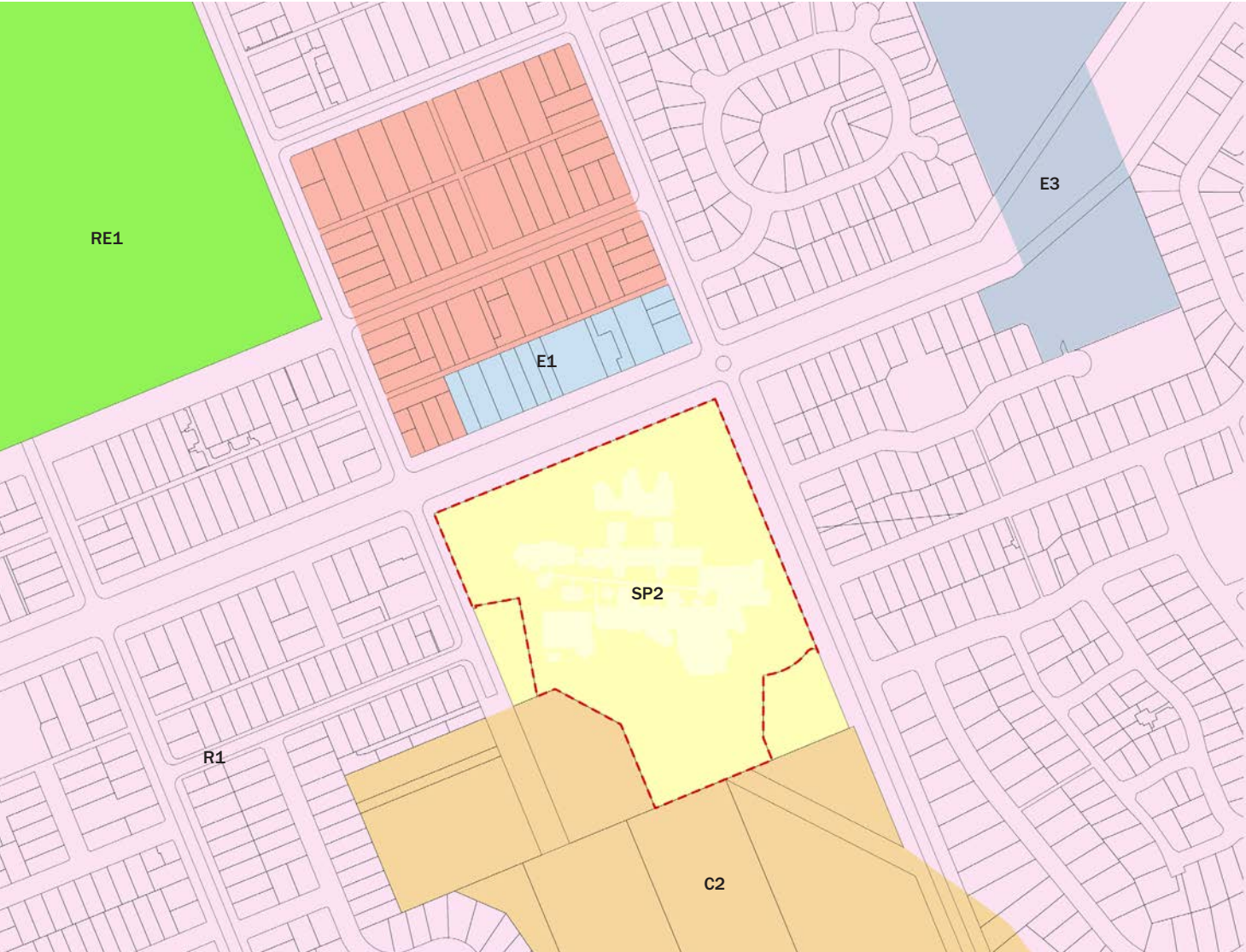
- The subject of this master plan is the Albury Hospital site, which is located at 201 Borella Road, East Albury.
- The site is located approximately 3km East of the Albury CBD, an approximate 3-minute drive.
- Borella Road forms part of the Riverina Highway, and as such, it is subject to controls and restrictions preventing direct vehicular access to the site.



6.3 ZONING

LEGEND

<div></div>	R1 - General Residential
<div></div>	C2 - Environmental Conservation
<div></div>	SP2 - Infrastructure
<div></div>	E1 - Local Centre
<div></div>	E3 - Productivity Support
<div></div>	RE1 - Public Recreation
<div></div>	Title Boundary

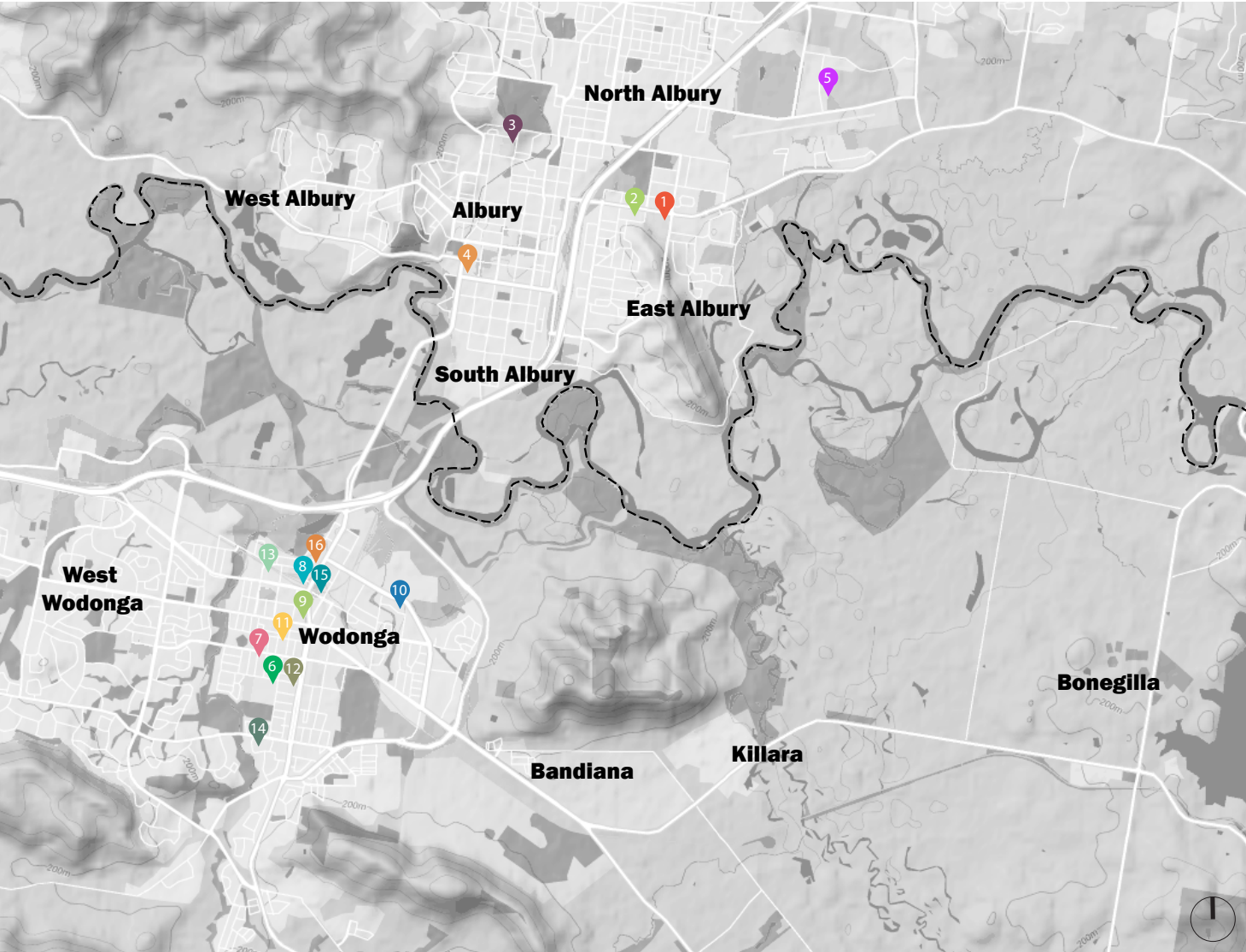


The site is zoned SP2 Infrastructure for the purpose of Health Service Facilities under Albury Local Environmental Plan 2010 (LEP). It is not subject to maximum Floor Space Ratio or maximum Building Height controls under the LEP.

The Site is located in 'Inner horizontal surface' under the 'Obstacle Limitation

Surface - Albury Airport' map, which has a height limit of 45 metres above ground plane. Therefore, development may be subject to Clause 7.8 Airspace Operations of the LEP if the development penetrates the Obstacle Limitation Surface (OLS).

6.4 LOCAL HEALTH SERVICES



The Albury Wodonga Health Service (AWH) provides acute, sub-acute, mental health, maternity, paediatric and ambulatory care services to the cross-border communities of Wodonga, Albury, and the surrounding rural and regional communities. The catchment for services varies by the type of service, with the municipalities in the North-east of Victoria/southern NSW

- 1. Albury Hospital Campus

→ 2. Albury Wodonga Regional Cancer Centre

→ 3. Brain and Mind Centre

→ 4. Albury Community Health

→ 5. AWH Warehouse

→ 6. Wodonga Hospital Campus

→ 7. Parents and Babies Service

→ 8. Child and Youth Mental Health Service

→ 9. AWH Dental Service
- 10. AWH Corporate Services

→ 11. AWH Corporate Financial Services

→ 12. Benambra Rehabilitation Service

→ 13. Adult Community Mental Health Services

→ 14. Jarrah Prevention and Recover Services

→ AWH Public Health Unit

→ AWH Vaccination Clinic

6.5 GREEN SPACES

LEGEND

Landscaped Areas



A combination of natural and constructed landscape with a mix of natives and exotic species exist across the site.

A series of intimate courtyards are a defining feature of Albury Hospital – with glimpses and views continually present from the main circulation spine and access to natural light and sun as

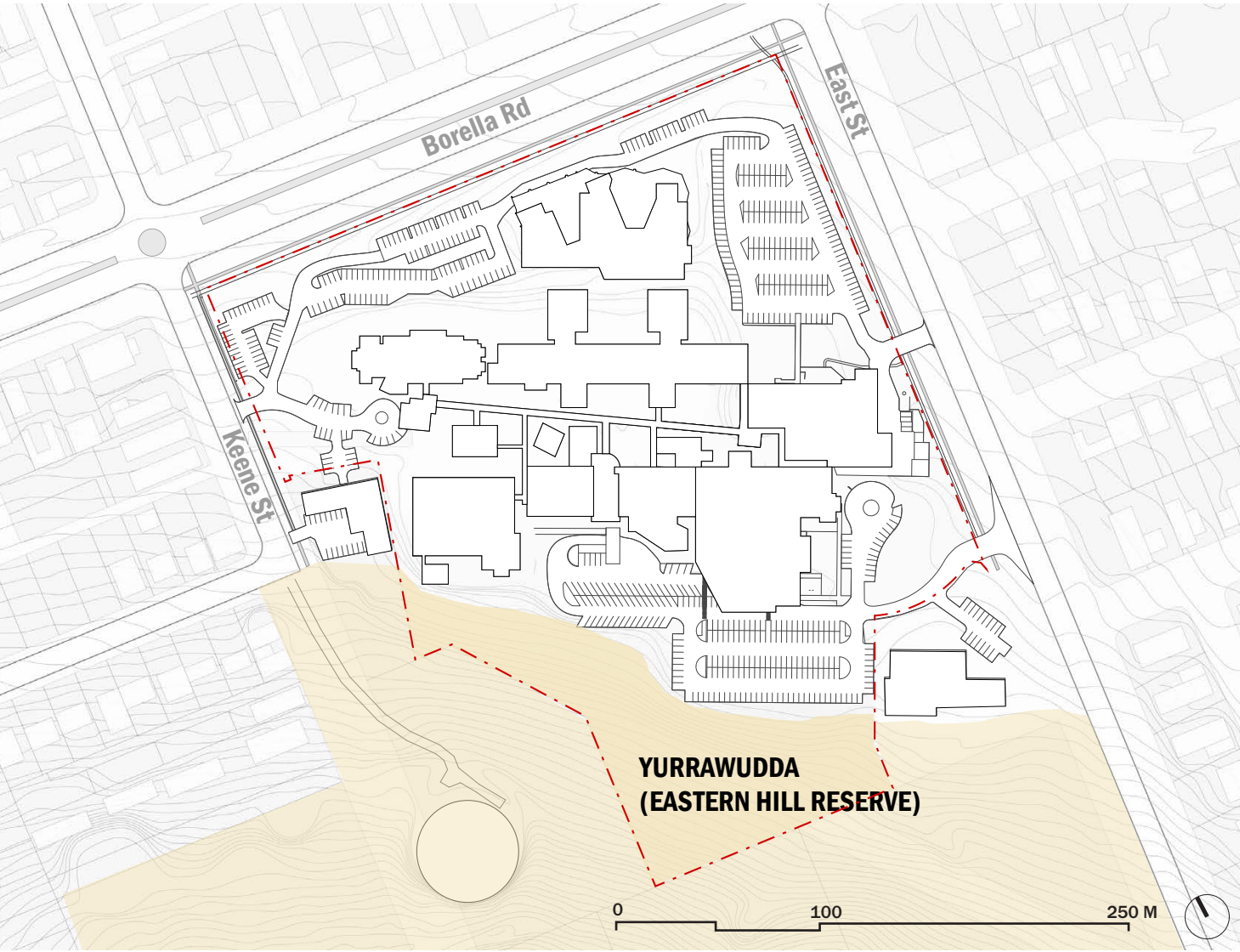
a result. The courtyards appear well used by both staff and patients – and well cared for from a maintenance perspective.

Large verge setbacks from both Borella Road and East Street set the site in a “landscape” rather than an “urban” context.

Significant planting along Borella Road

conceal the site vehicular circulation along the Northern boundary and much of the lower levels of the AWRCC - this planting provides a site foreground “baseline” when seen from the long view.

6.6 HERITAGE



Traditional Owner sites of significance

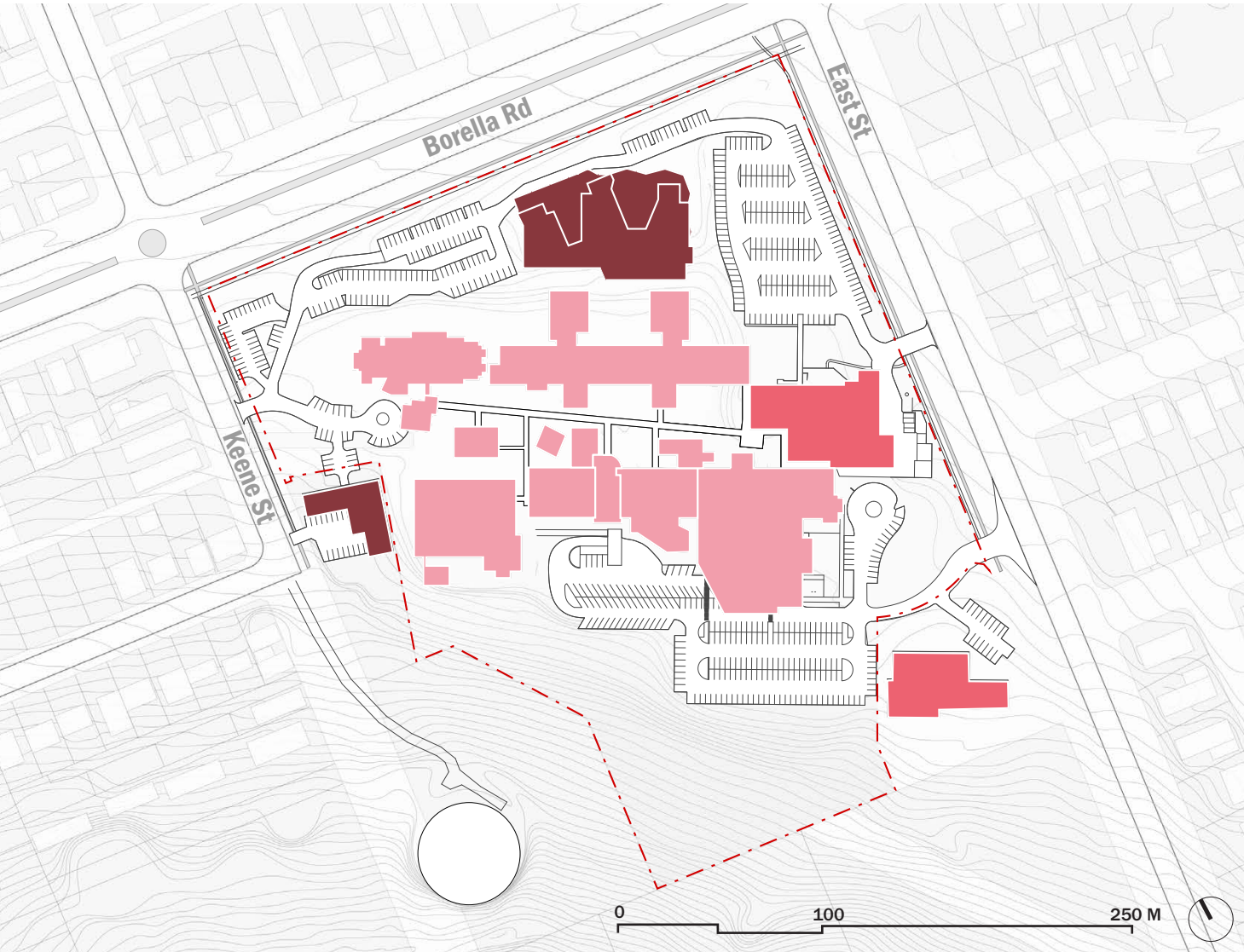
- Yarrawudda (Eastern Hill Reserve)
- Mungabareena Reserve
- Yindymarra Trail
- Milewa Billa/Murray River

Other heritage

→ The site is not a State or local heritage item or in a heritage Conservation Area under the LEP. The site also does not have any neighbouring heritage items identified in the LEP maps. No heritage listed buildings on-site

6.7 BUILT FORM

LEGEND	
<div></div>	1 Storey
<div></div>	2 Storey
<div></div>	3 Storey



The existing buildings are low scale, ranging from 1 to 3 storeys:

→ Cancer Centre: 3 storeys - a structural assessment has indicated that an additional 2 storeys are possible. Constructing over the existing facility would have a significant impact on the continuity of operations and services.

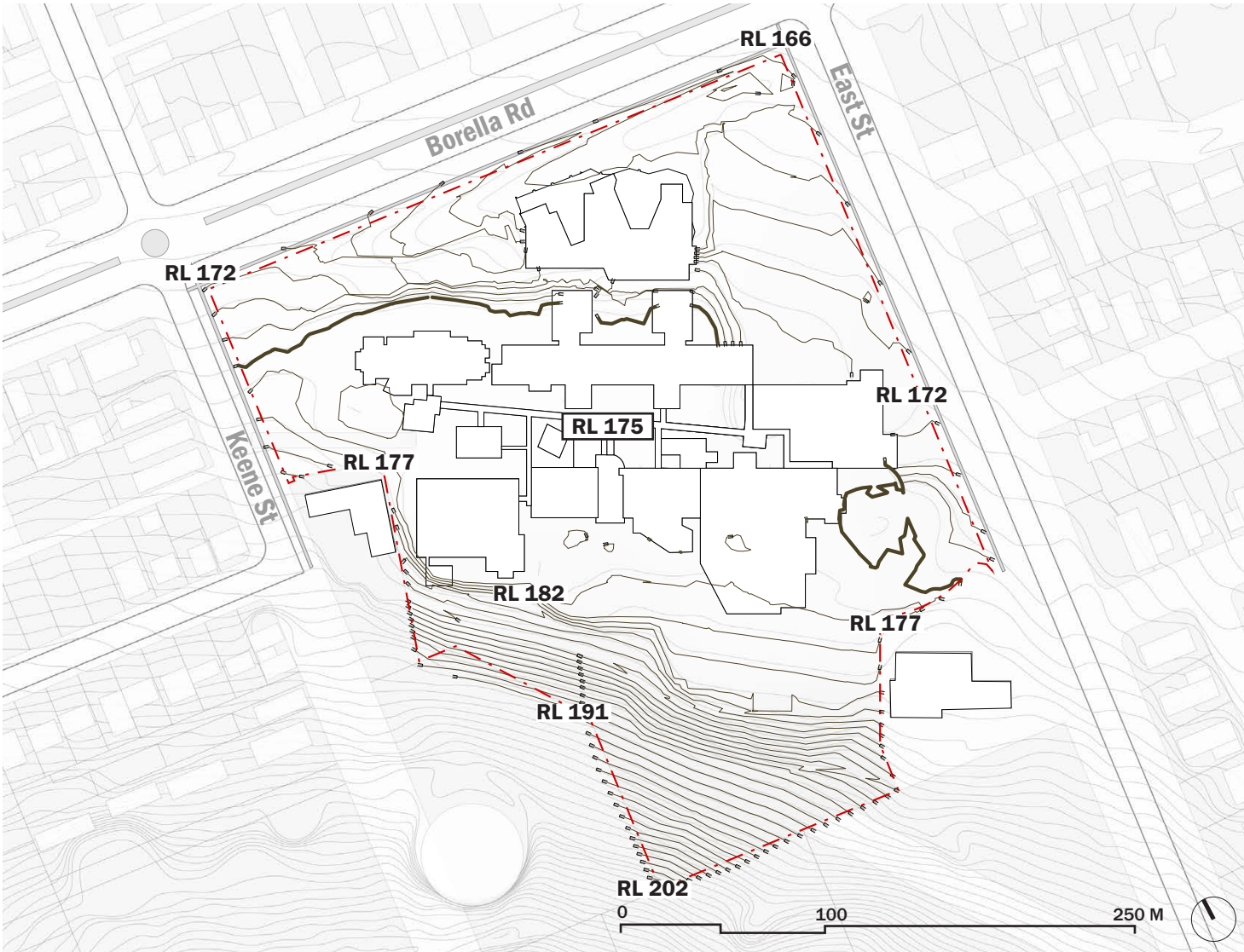
- Operating theatres (loading dock/ Back of House/Admin below): 2 storeys.
- Plant room/services: 3 storeys
- Emergency Department: 1 storey (with a 2nd storey roof-level plant room). Adding levels over will not be supported by the current structure, and additional structure and insertion of columns within

the existing structure would have significant impacts on the continuity of operations and service.

→ IPU/MHU/Allied Health/FOH and associated buildings: 1 storey

The adjacent buildings, such as the Hilltop Accommodation to the West and the UNSW education facility to the East, are of domestic scale.

6.8 TOPOGRAPHY



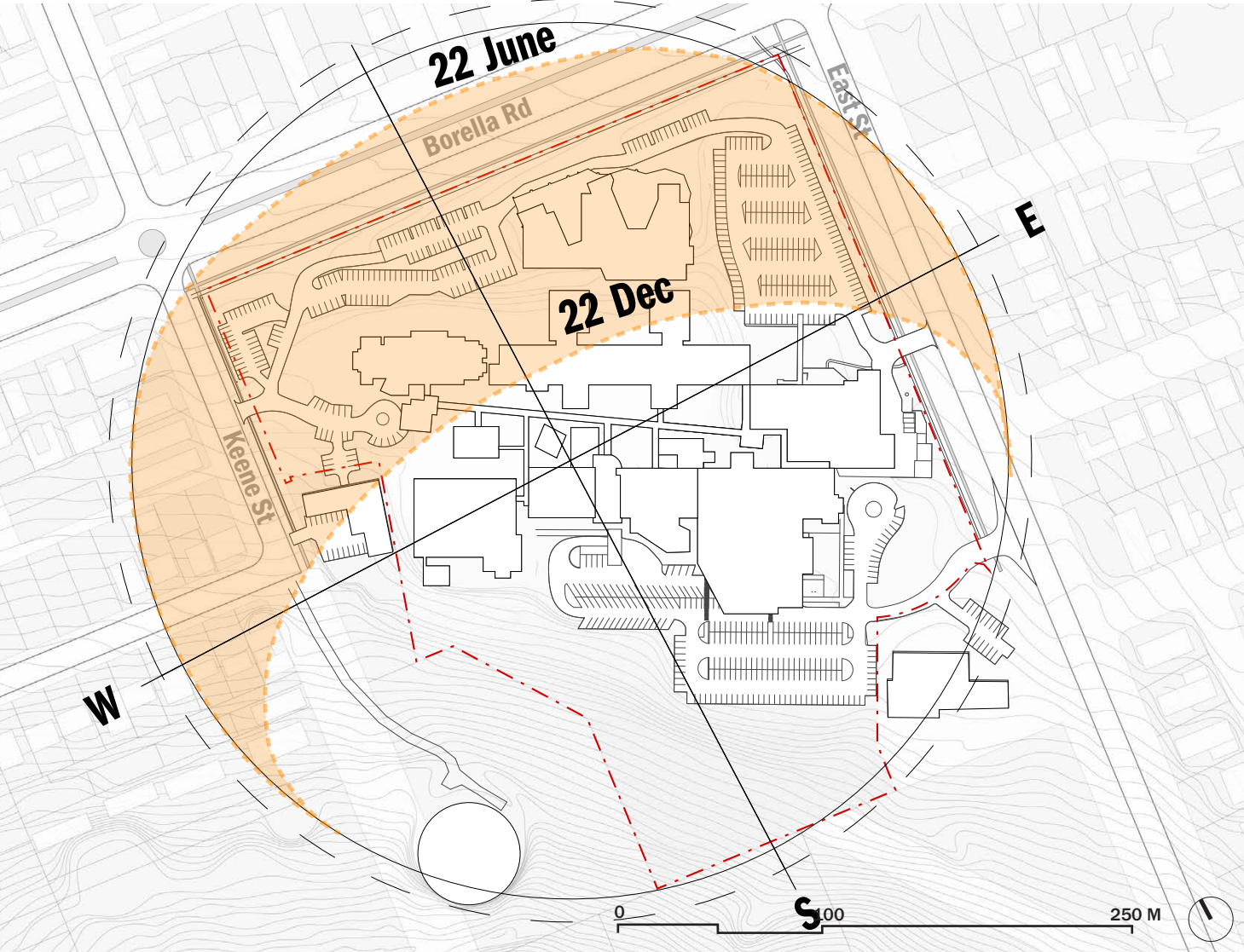
The existing site has significant change in levels. This will impact the planning of any new development.

There is approximately 13 m level change from the base of Eastern Hill reserve at the Southern car park and South West corner of the site to the North East intersection of East Street and Borella Road. The main level of the

existing hospital is at RL 175.

The AWRCC is located at the Northern edge, sitting at RL 167.

6.9 SUN PATH



Orientation of the site is due North with the buildings following the site contours and facing Northeast.

Solar ingress to the site is not significantly impacted due to the low scale nature of the development on the site and the slope of the land towards the Northeast.

6.10 WIND



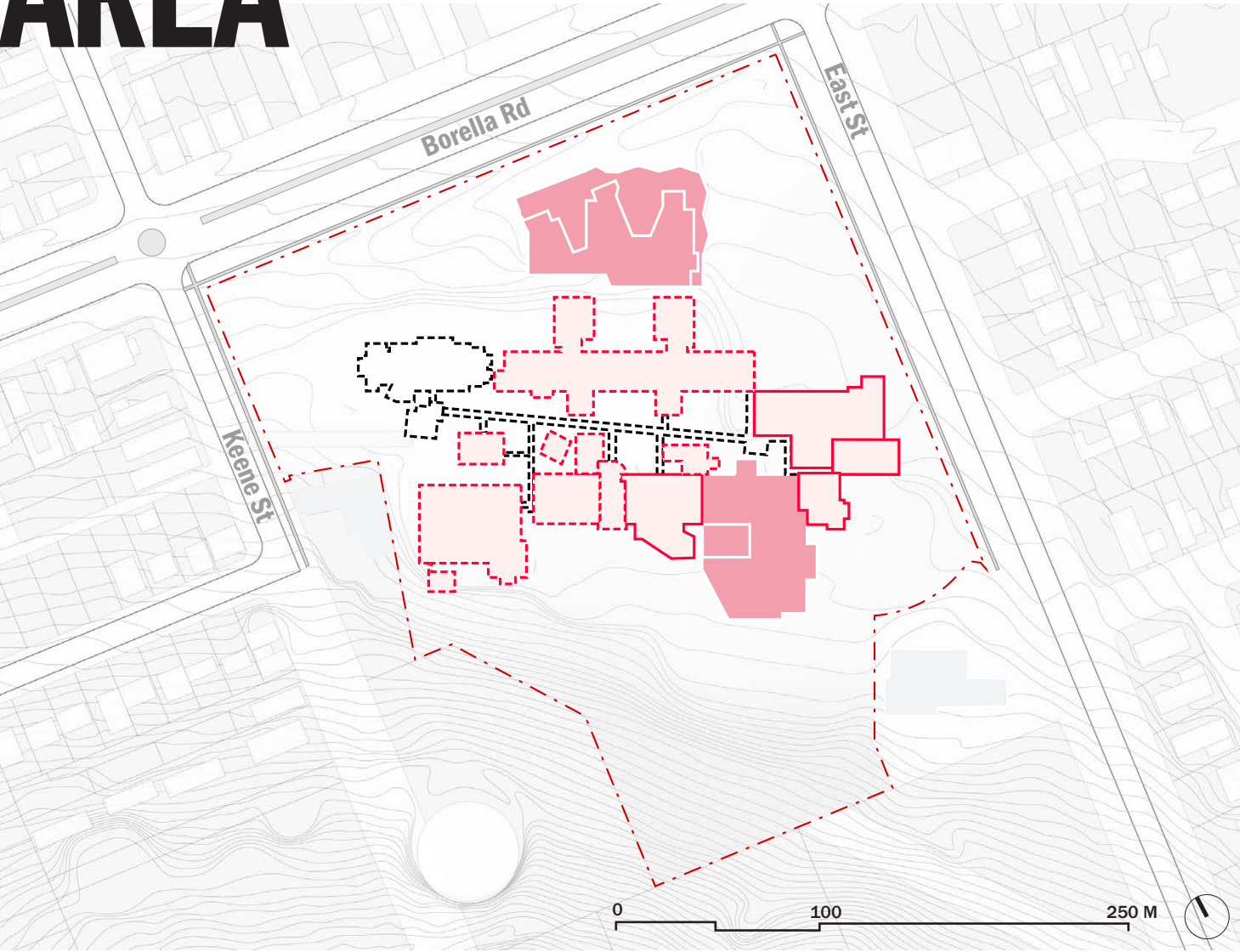
Prevailing summer breezes are from the North West, with the winter winds from the West.

Average temperature range in Albury:

- Summer: 14.7 °C minimum and 30.3 °C maximum
- Winter: 3.2 °C minimum and 13.9 °C maximum

6.11 DEVELOPABLE AREA

LEGEND	
	Demolition
	Re-use
	Remain for re-use
	To be retained



6.12 BIODIVERSITY

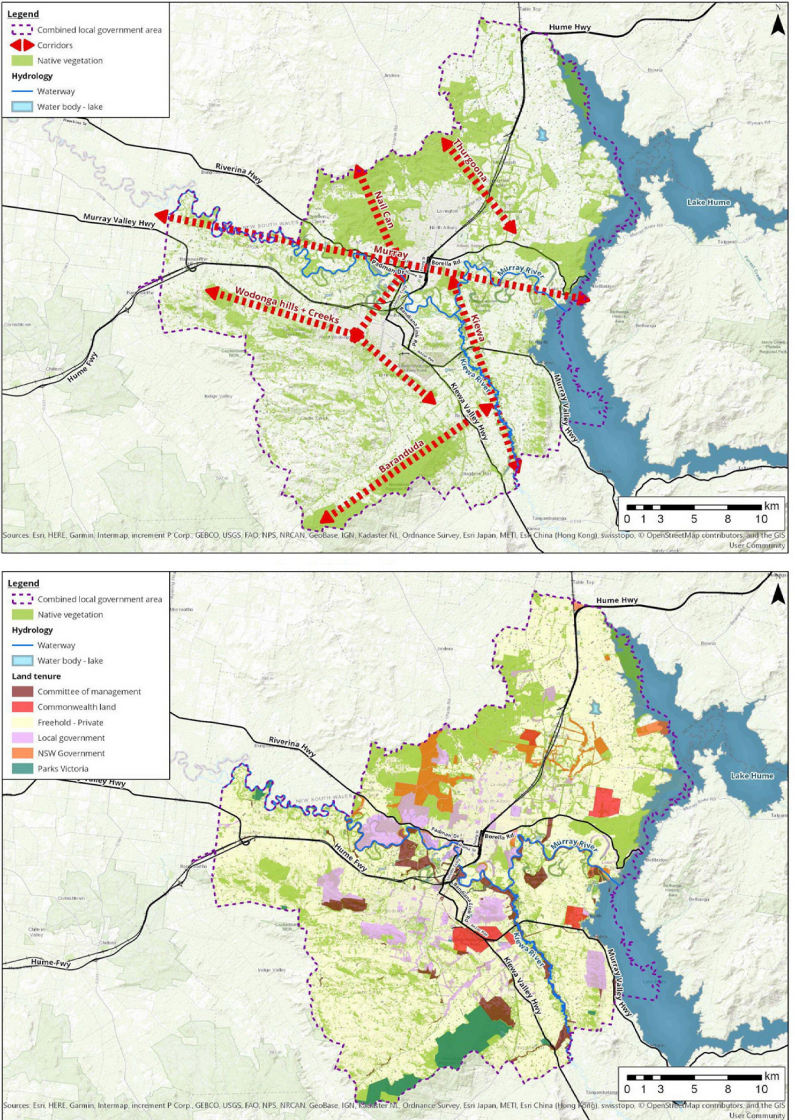
The following diagrams are taken from the Draft Regional Environment Strategy and identify key ecological corridors and vegetation types across Albury and surrounds.

As noted in the diagram to the right, two corridors meet at the Albury Hospital site, identifying adjacent Eastern Hill as an important corridor for species to take refuge and move safely between ecological habitat.

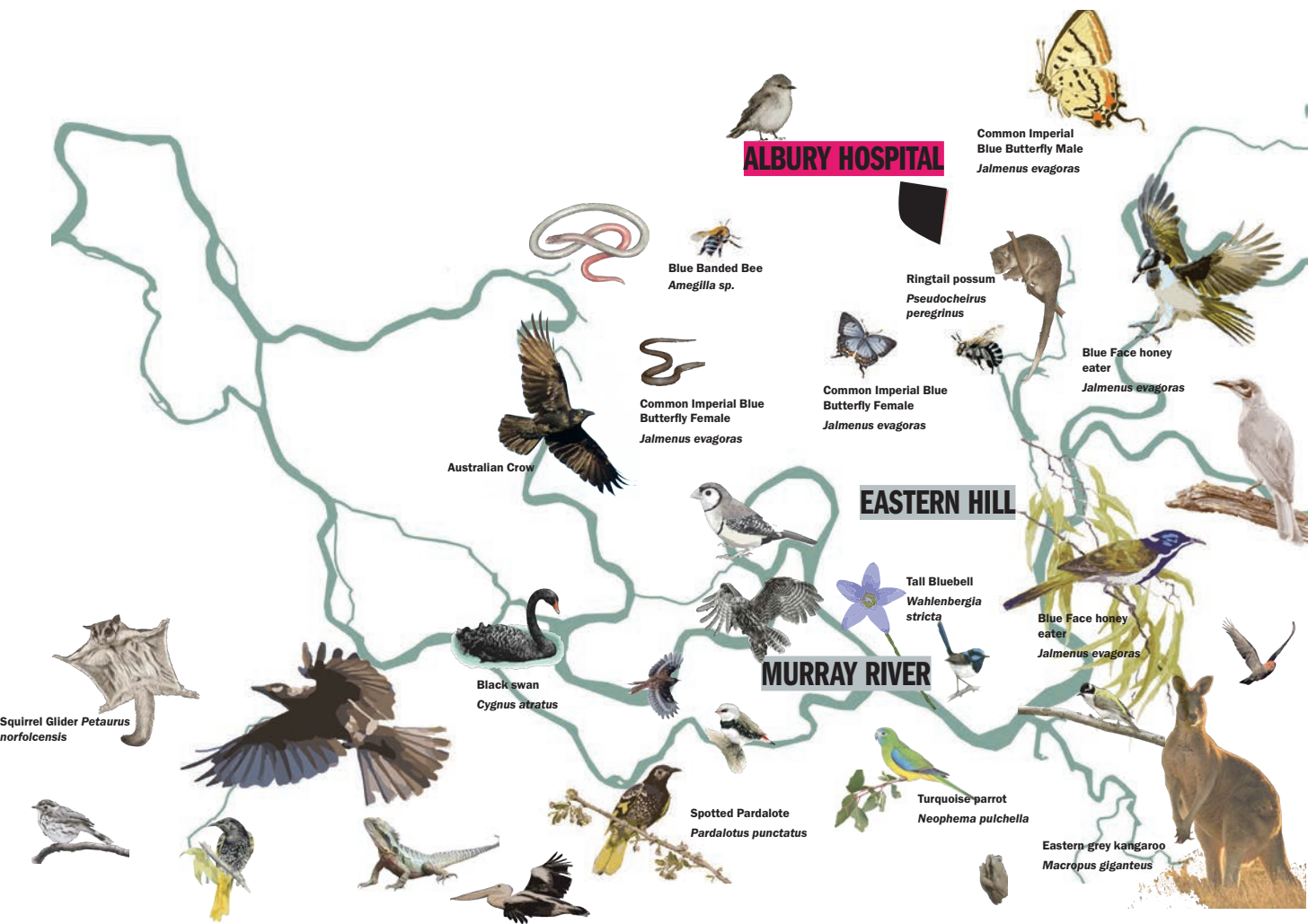
The document identifies important statistics below that have been taken into consideration through the concept design phase.

- 43% of native vegetation is in high condition, meaning these areas are probably large patches, contain old trees and some under-storey providing habitat for native plants and animals.
- The region supports 34 threatened bird species, 7 threatened mammal species

LEGEND	
	Biodiversity Values
	Site Boundary



6.13 FLORA AND FAUNA



The Albury-Wodonga landscape is defined by the bush covered hilltops of endangered Box-Gum Grassy Woodlands and open forests of River Red Gums along the weaving watercourses of the Murray River.

The understorey is rich with a diversity of species not found very often so close to urban areas. The fragrant chocolate

lily, carnivorous sundew, the golden yellows of silver wattle and kangaroo thorn, vibrant colours of the pea flowers and orchids are to be protected and treasured.

6.14 SITE INVESTIGATIONS

A number of reports were undertaken as preliminary site investigations to inform the Concept Design, including:

- Bushfire, ecology and contamination investigations, geotechnical, sewer flow monitoring and in-ground surveys.
- These investigations were undertaken and assessed during the Master Plan and Concept Design phases. Refer to Appendices for detailed reports
- Further critical site investigations such as a detailed survey will be commissioned for the Schematic Design phase of the project.

SECTION 7 DEVELOPMENT PROPOSAL

7.1 SOA

The table below highlights the differences between the briefed and drawn areas of the preferred concept design, with the briefed areas being based on SoA v12. Refer to Chapter 10 Appendices for full details of SoA.

Type	Gross	Drawn	Variance	%	Comments
NEW BUILD:					
ACUTE					
IPU 1	1205	1291	86	7.1%	
IPU 2	1129	1245	116	10.2%	
IPU 3	1186	1346	160	13.5%	
ADMINISTRATION AND SUPPORT					
Admin	528	542	14	2.7%	
AMBULATORY CARE					
Ambulatory Care	2027	2033	6	0.3%	
CLINICAL SUPPORT					
ETR	588	592	4	0.8%	
CLINICAL CARE					
ICU	1245	1271	26	2.1%	
INTERVENTIONAL					
Cardiac Cath Lab	300	294	-6	-2.2%	
CSSD	770	765	-5	-0.7%	
Day Surgery	802	843	41	5.1%	
Operating Suites	2037	2052	15	0.7%	
MENTAL HEALTH					
Mental Health	2199	2332	133	6.0%	
MH - Secure Entry	75	64	-11	-14.2%	
NON-CLINICAL SUPPORT					
FOH	398	453	55	13.7%	
WOMEN & CHILDREN					
Birthing	1098	1108	10	0.9%	
Maternity	1076	1190	114	10.6%	
Paediatrics	1149	1174	25	2.2%	
Special Care Nursery	852	865	13	1.5%	
TOTAL CSB (excl. T&E)	18664	19459	795	4.3%	
Travel - Campus		624			Campus Travel is excluded from total CSB T&E
Travel - CSB		3572			
%		18.4%			
Engineering		3818			
%		19.6%			
T&E	6719	7391	672		
%	36.0%	38.0%			
TOTAL CSB (including T&E) - Risers, Stairs & Lifts calculated once per level as per part C AusHFG)	25383	26850	1467	5.8%	Campus Travel is excluded from total CSB T&E

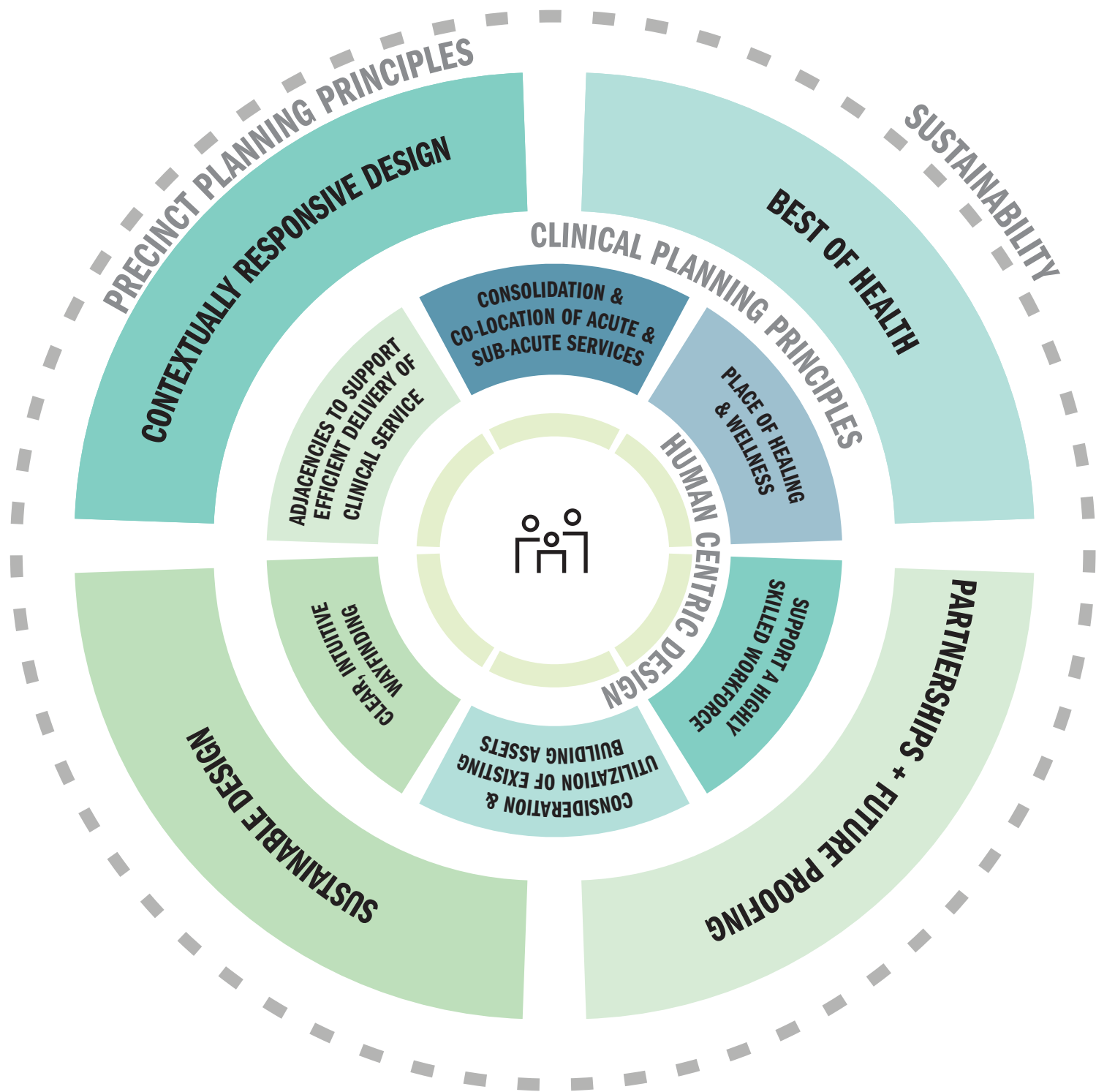
Type	Gross	Drawn	Variance	%	Comments
REFURB:					
Pathology	810	814	4	0.5%	
Pharmacy	616	616	0	0.1%	
Medical Imaging	490	494	4	0.9%	
MHAOD	341	372	31	9.0%	
Staff Amenity	200	0	-200	-100.0%	No refurbishment - relying on existing
ED Expansion (14 bed)	309	375	66	21.2%	
TOTAL REFURB (excl. T&E)					
Travel Refurb		715			
%		26.8%			
Engineering Refurb		0			Engineering refurb allocated as Osqm, as it is existing and no additional plant is proposed. However, remedial works may be required to fittings and equipment, refer to engineers.
%		0.0%			
T&E Refurb	996	715			
%	36.0%	27%			
TOTAL REFURB (incl. T&E)	3762	3386	-376	-10.0%	
TOTAL CSB + REFURB (incl T&E)					
TOTAL CSB + REFURB (excl. T&E)					
LANDSCAPE:					
CSB LANDSCAPE (NOT BRIEFED)					
Landscape Area		1130			
Landscape Area- Planter		101			
Courtyard - Mat		125			
TOTAL CSB LANDSCAPE	0	1357			
CSB COURTYARD (BRIEFED)					
Courtyard - MH GCA	160	152	-8	-5.0%	
Courtyard - MH ICA	80	88	8	10.5%	
Courtyard - MH MCA	30	26	-4	-13.3%	
Courtyard - PAED	20	20	0	0.8%	
Courtyard - ICU	50	51	1	1.9%	
Total CSB Courtyard	340	337	-3	-0.7%	
Refurb Courtyard (briefed)					
COURTYARD - MHDA	45	45	0	0.4%	
Total CSB Courtyard & Landscape					
Total CSB & Refurb Courtyard & Landscape	385	1740			

7.2

DESIGN PRINCIPLES

Six clinical and four precinct design principles were established at the commencement of the master plan phase with AWHs.

The concept design options have been assessed against these principles to determine alignment with aspirations for the project and ultimately a preferred design.



DESIGN PRINCIPLES

CLINICAL



CONSOLIDATION & CO-LOCATION OF ACUTE SERVICES

- Co-location of acute 24-hour services on a single site optimising efficiencies
- Alignment with Australasian Health Facility Guidelines (AusHFG) and Disability Discrimination Act (DDA) compliance
- Support contemporary best practice care with consumers treated in a



PLACE OF HEALING & WELLNESS

- People-centred design spaces that support consumer dignity and privacy, improving user experience
- Create an active vibrant precinct with a sense of place with access to daylight, views and green spaces
- Enhance cultural and creative connections to Country
- Inclusivity allowing equal participation including the refugee communities in Albury Wodonga
- Community heart by providing a focal point to orientate communal activity



SUPPORT A HIGHLY SKILLED WORKFORCE

- Provide areas where education, research and health can engage with business and industry on the precinct
- Provide an environment that positively impacts learning, discovery, socialisation and collaboration
- Deliver a service, retail, food and beverage offer that meets the needs of a high-performing workforce
- Safety for users considered in clinical spaces and public realm



CONSIDERATION & UTILISATION OF EXISTING ASSETS

- Cancer Centre - leveraging the quality of existing built form, spaces and landscape
- ED - consideration of current expansion and commissioning of the new department
- Consideration of other building assets that can be re-purposed
- Consideration of staging and operational continuity



CLEAR, INTUITIVE WAYFINDING

- Architectural form and language to reinforce clear and intuitive wayfinding
- Provide legible drop off for public and emergency. Establish accessibility with a clear separation between front and back of house, and pedestrians and vehicles
- Provide clear connectivity between hospital, research, academic and private partnerships



ADJACENCIES TO SUPPORT EFFICIENT DELIVERY OF CLINICAL SERVICE

- Sharing of specialist facilities and resources
- Improve service integration of mental health services with other clinical services of the hospital
- Promote flexible buildings that can accommodate expansion, growth and changing models of care
- ICT enabled to support best clinical care

DESIGN PRINCIPLES

PRECINCT



PARTNERSHIP

- Contribute to the health and innovation precinct
- Establish new partnerships that integrate research and health evolution e.g.. private hospital
- Identify areas where education and research can engage with business and industry on the precinct or on adjacent site



FLEXIBILITY + FUTURE PROOFING

- Setting out a strong foundation for the master plan to enable future-proofing opportunities for growth, prosperity and strong partnerships
- Allow for change over time and future staging by providing a flexible framework for growth
- Establish a design chassis that enables logical expansion



SUSTAINABLE DESIGN

- Improved precinct amenity and environmental sustainability - creating an active vibrant precinct with a sense of place with access to daylight and green spaces
- Minimising energy use by adopting passive and active environmentally sustainable design strategies, including orienting the position of the building to best control solar impact
- Sustainable capital and recurrent financial and staffing model



CLEAR, INTUITIVE WAYFINDING

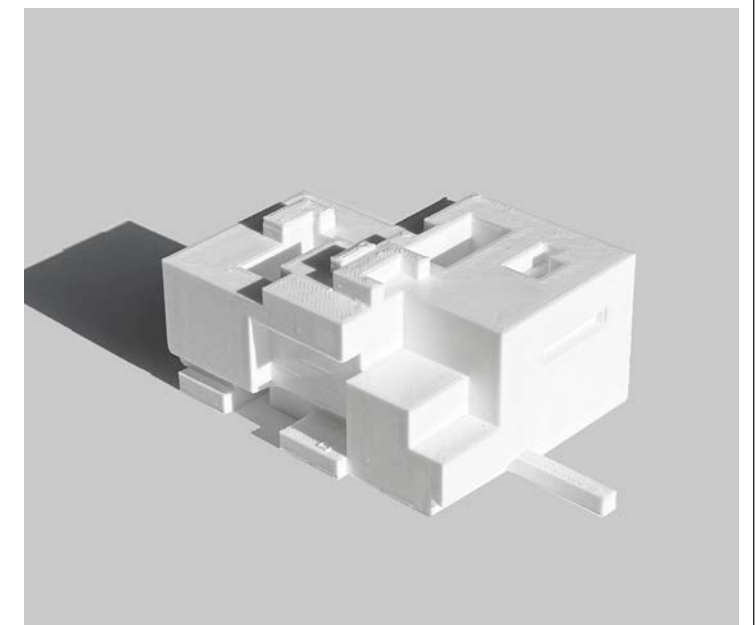
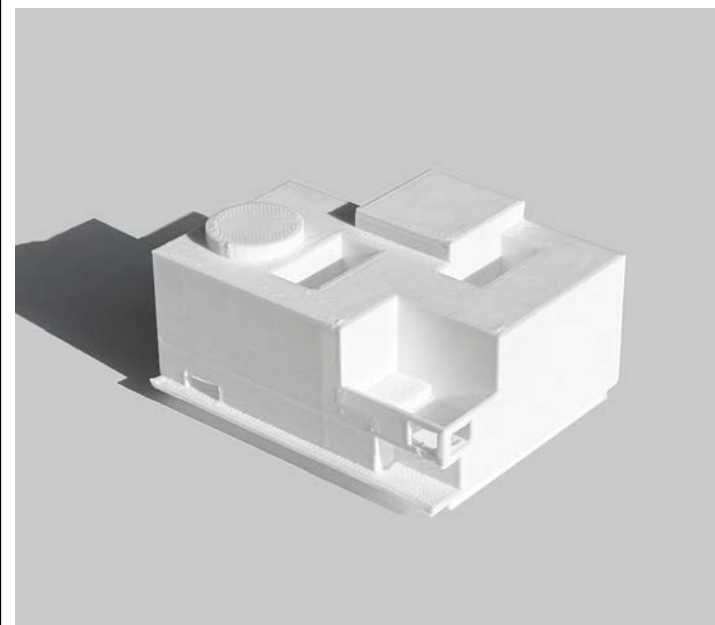
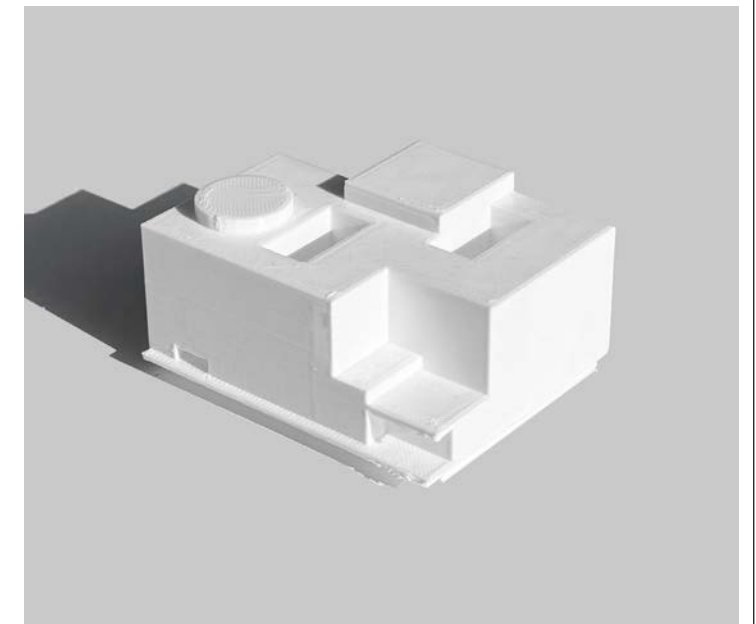
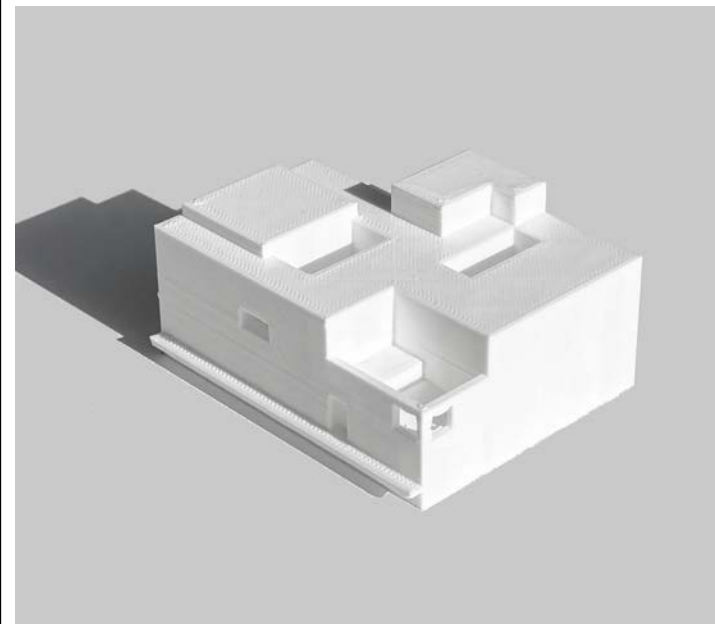
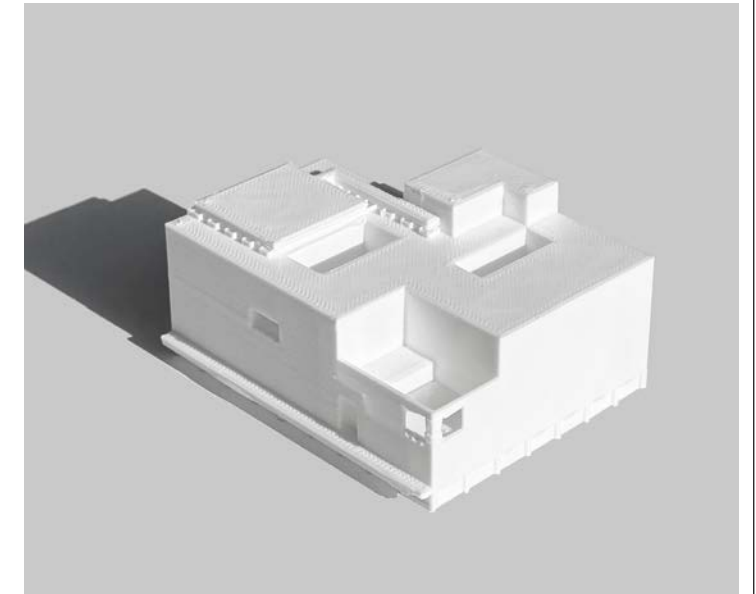
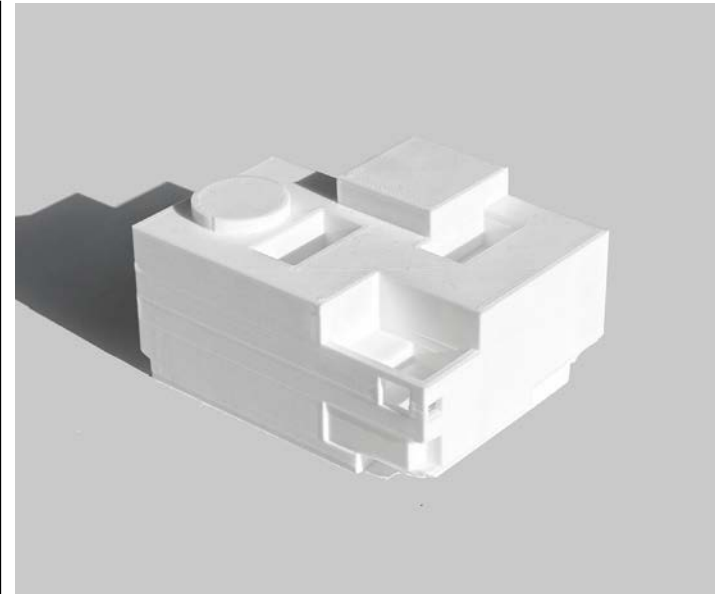
- Ensure local character and environmental assets create authenticity which enriches the sense of place
- Promote a greater level of general permeability, connectedness and accessibility to the surrounding context
- Actively curate a sense of place to respectively integrate with its neighbours
- Ensure buildings respond to their internal and external environments
- Achieve heightened relevance as a major regional health service
- Provide a clear address for precinct, hospitals and research entities

7.3

OPTIONS DEVELOPMENT

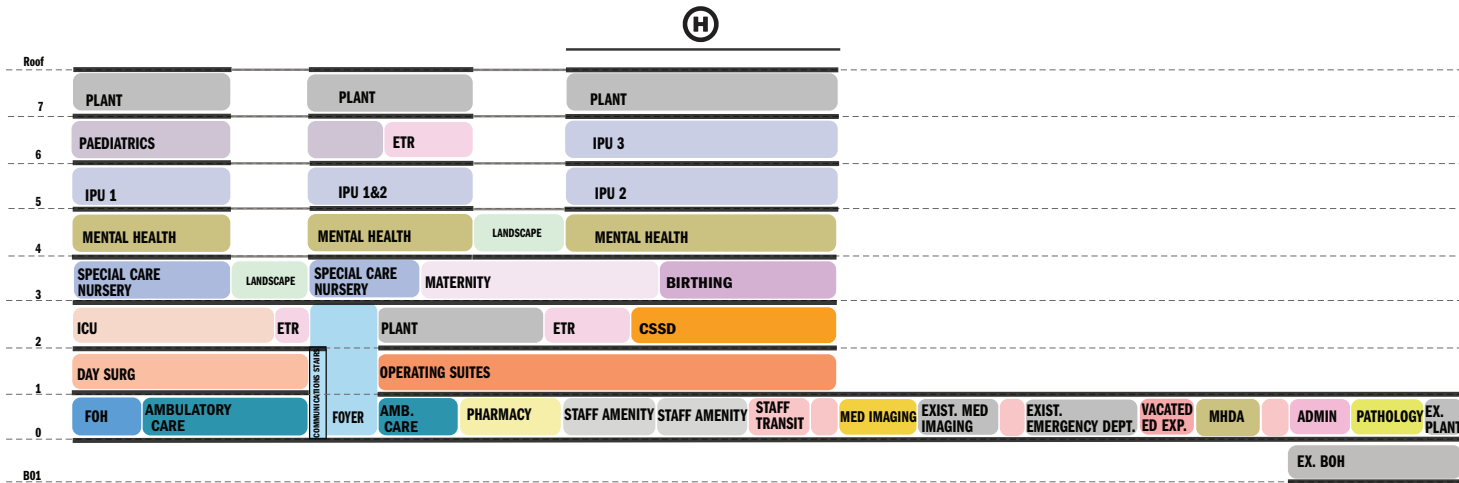
As part of the development of concept design for the project, a total of 10 Block and Stack designs were developed during this phase. The following pages describe a brief summary of each of those options. The final Block and Stack presented during concept design workshop 3 was the preferred Option 3.3. Value management process between various stakeholders was then followed on the basis of Option 3.4 to align with the project budget.

The following pages summarise each option.



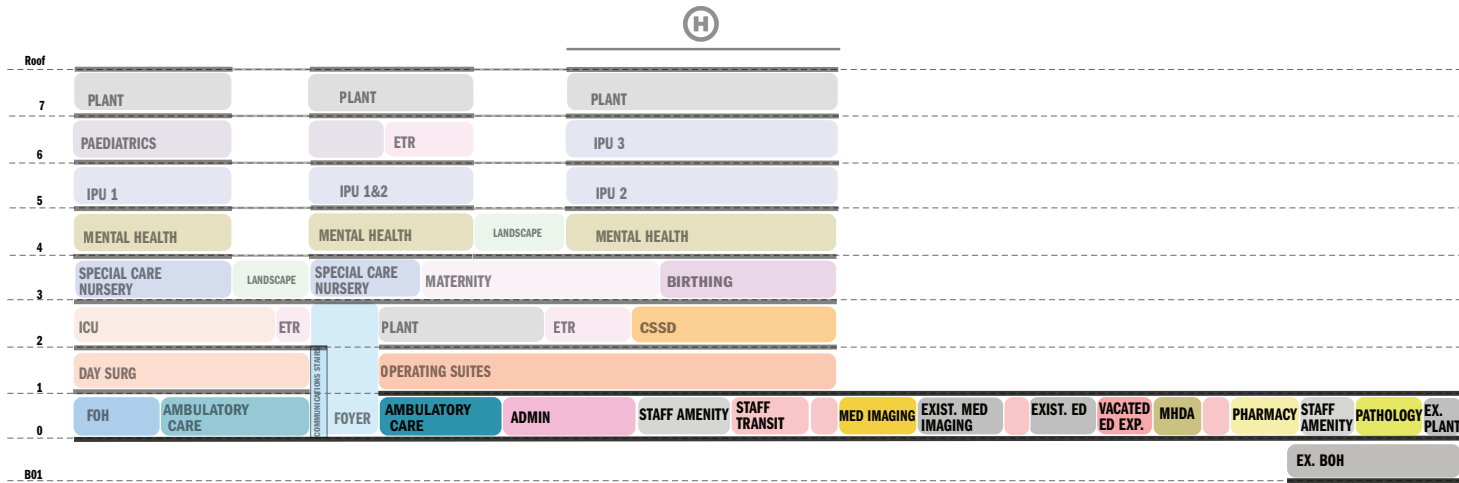
OPTIONS DEVELOPMENT

OPTION 1.1



- Internal courtyards located on Level 03 (Special Care/ Maternity) and Level 04 (Mental Health).
- Administration housed in the existing hospital, with close proximity to existing staff areas.
- Paediatrics co-located with the Inpatient Unit (IPU) on Level 06.
- Pharmacy and Transit situated on the ground floor of the Clinical Services Building (CSB).
- Distributed ETR located on Level 02 and Level 06.
- Mental Health positioned on Level 04, with consideration for potential issues with unit overlooking all IPUs and Paediatrics.

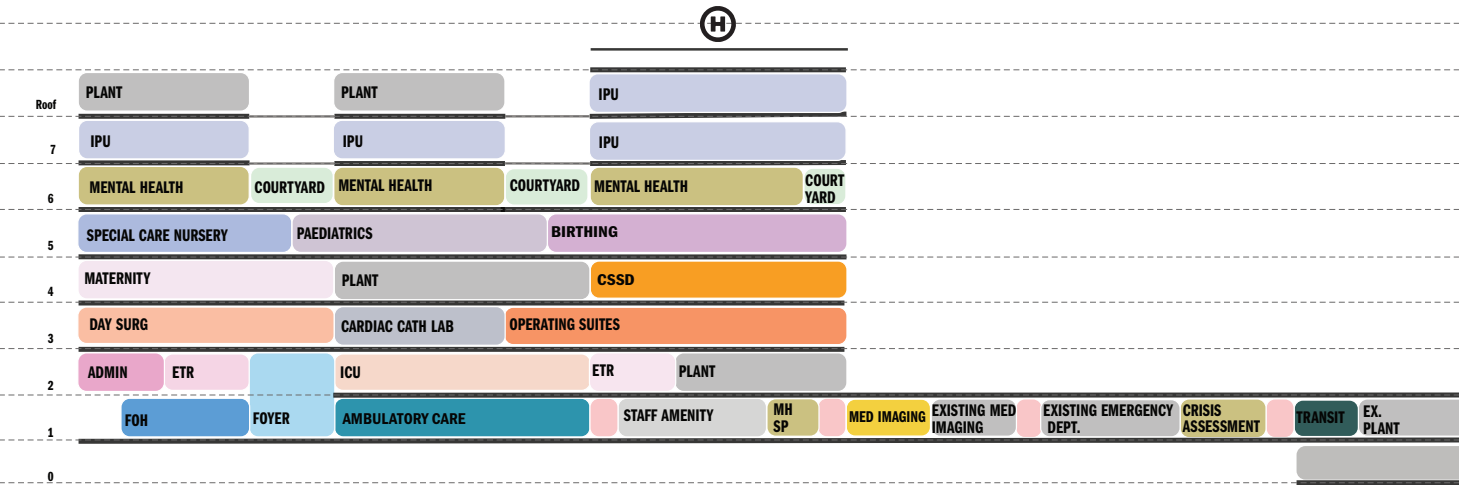
OPTION 1.2



- Administration positioned on the ground floor of the Clinical Services Building (CSB) as soft space for future expansion.
- Pharmacy co-located with Pathology in the existing building, ensuring close proximity to existing Back of House services.

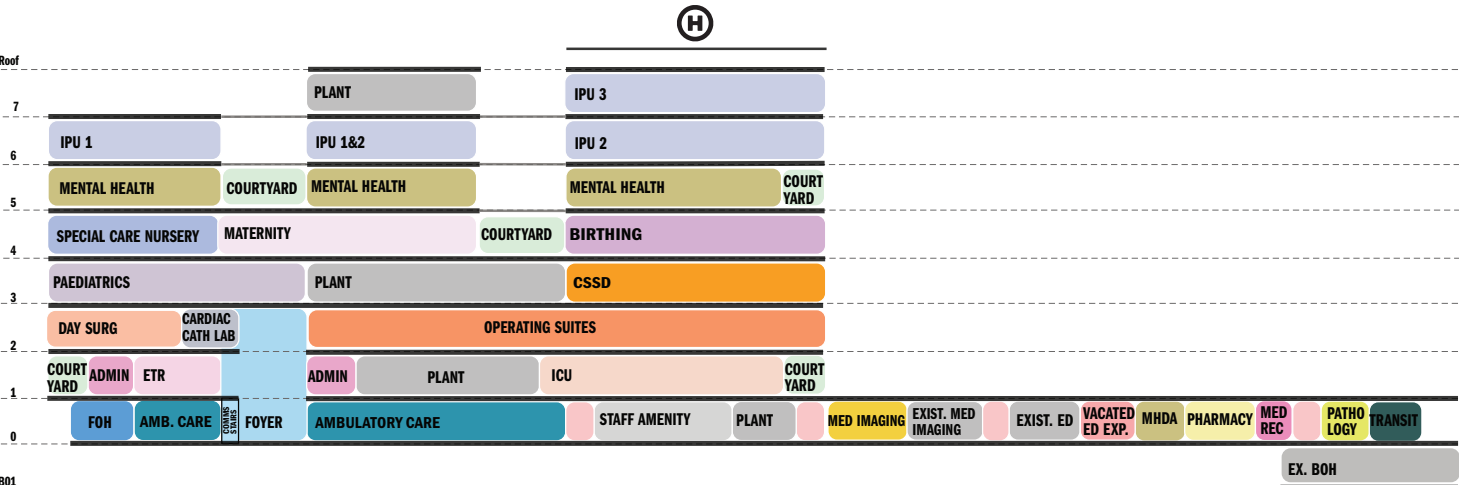
OPTIONS DEVELOPMENT

OPTION 2.0



- Theatres relocated to Level 03.
- Distributed Plant Strategy implemented on Level 04 and Level 08.
- Co-location of Paediatrics, Special Care Nursery (SCN), and Birthing on the same floor.
- Internal Courtyards positioned on Level 06 (Mental Health), with consideration for potential issues overlooking from all IPUs.

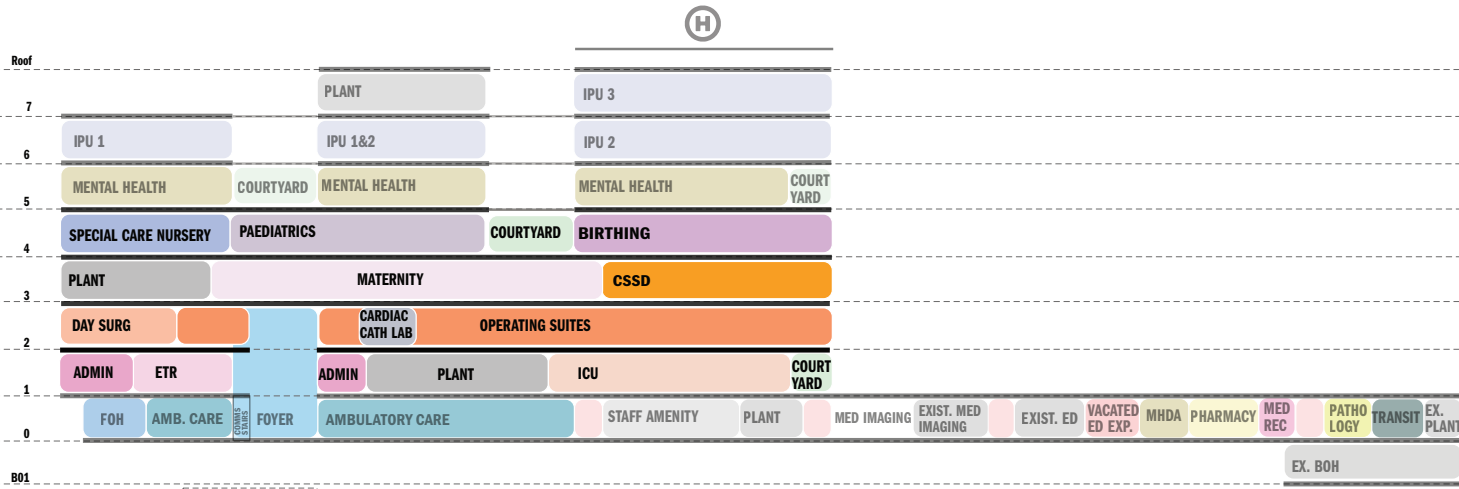
OPTION 2.1



- Theatres relocated to Level 02.
- ICU moved to Level 01, along with consolidated ETR and Administration.
- Distributed Plant Strategy implemented on Level 01, Level 03 and Level 07.
- Paediatrics relocated to Level 03 with direct stair access to the Special Care Nursery (SCN).
- Internal Courtyards located on Level 04 (Birthing/ Maternity) and Level 05 (Mental Health).
- Concerns regarding overlooking into the Birthing courtyard from the Mental Health unit.
- Mental Health positioned on Level 05, with consideration for potential issues overlooking from all IPUs

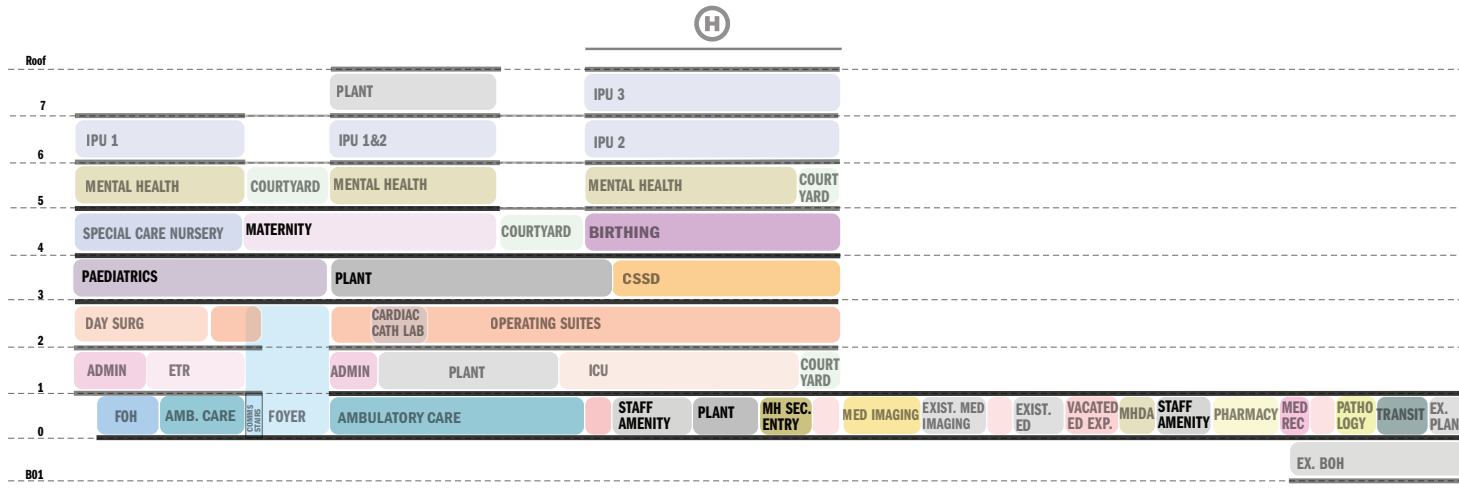
OPTIONS DEVELOPMENT

OPTION 2.2/A



- Balcony to Admin removed
 - Cardiac Cath Lab located central on the theatre floor
- OPTION 2.2/A
- Paediatrics relocated to Level 04, co-located with the Special Care Nursery (SCN) and Birthing, based on proximity preference relative to staffing model.
 - Maternity moved to Level 03 with direct stair access to the Birthing area.

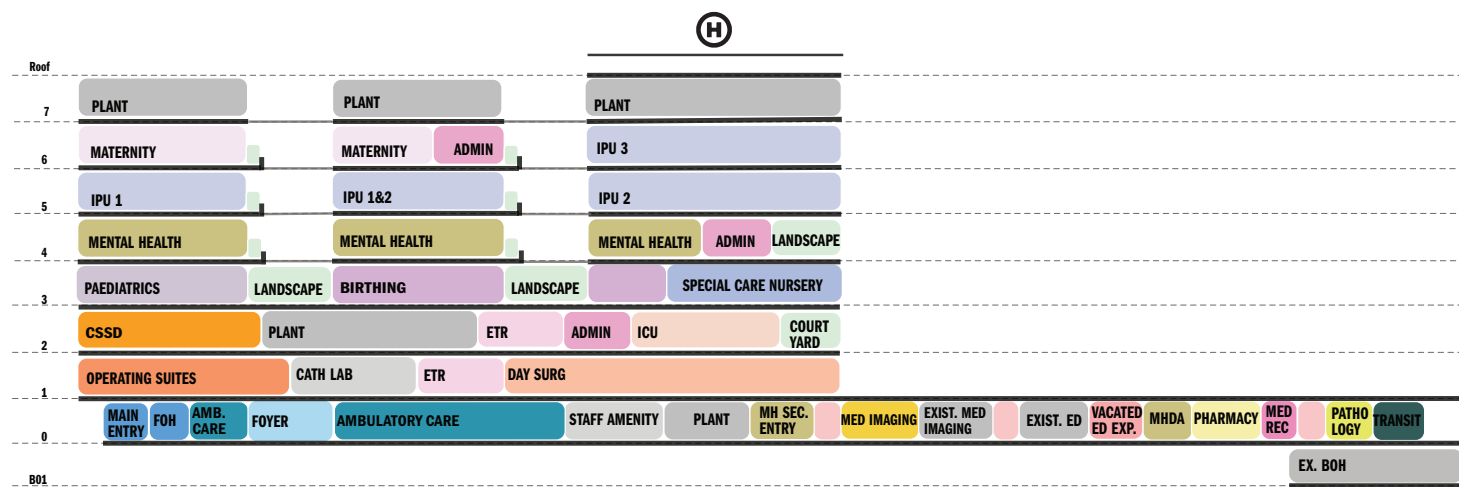
OPTION 2.3



- Theatres relocated to Level 02.
- ICU moved to Level 01, along with consolidated ETR and Administration.
- Distributed Plant Strategy implemented on Level 01, Level 03, and Level 07.
- Paediatrics relocated to Level 03 with direct stair access to the Special Care Nursery (SCN).
- Internal Courtyards located on Level 04 (Birthing/ Maternity) and Level 05 (Mental Health).
- Concerns regarding overlooking into the Birthing courtyard from the Mental Health unit.
- Mental Health positioned on Level 05, with consideration for potential issues overlooking from all IPUs

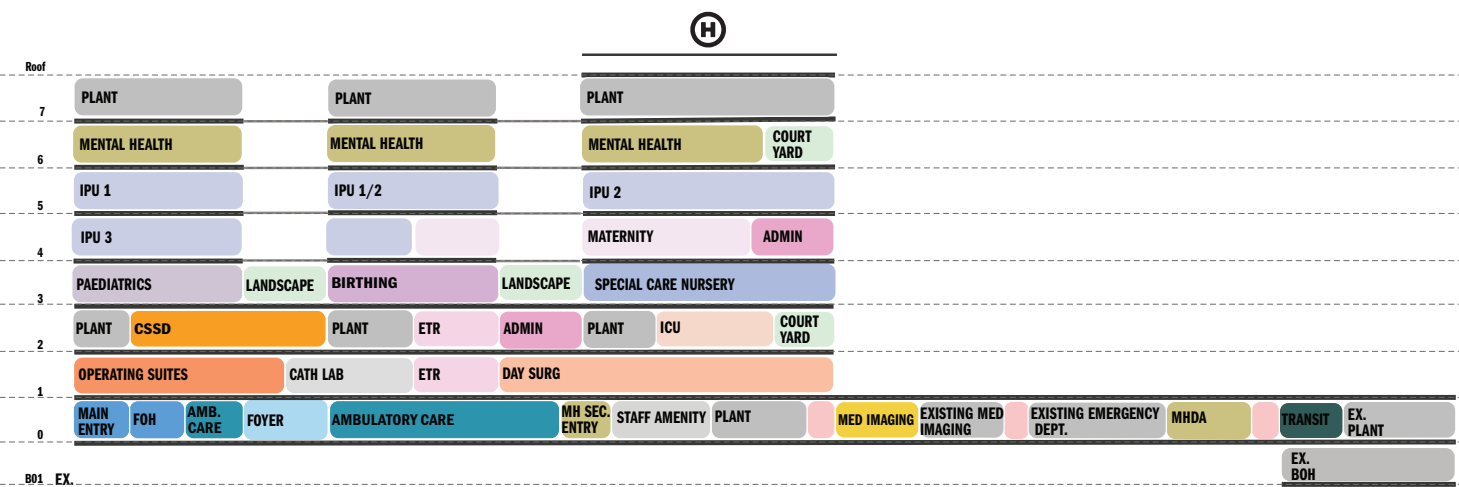
OPTIONS DEVELOPMENT

OPTION 3.1



- The building was modified by removing a clinical floor, aligning the ICU directly above the theatres to reduce travel distances, while maintaining the voids and double-height spaces at the north and south entrances.
- Both Internal courtyards are located on Level 03, accessible from Paediatrics and Birthing.
- Distributed Admin and ETR offering access per alternate level and potential for future expansion of adjacent departments.
- Maternity co-located with the Inpatient Unit (IPU) on Level 06, with a two-level separation from Birthing.
- Theatres relocated to Level 01.
- Mental Health positioned on Level 04, with consideration for potential issues with unit overlooking into the Birthing and Paediatrics courtyards.

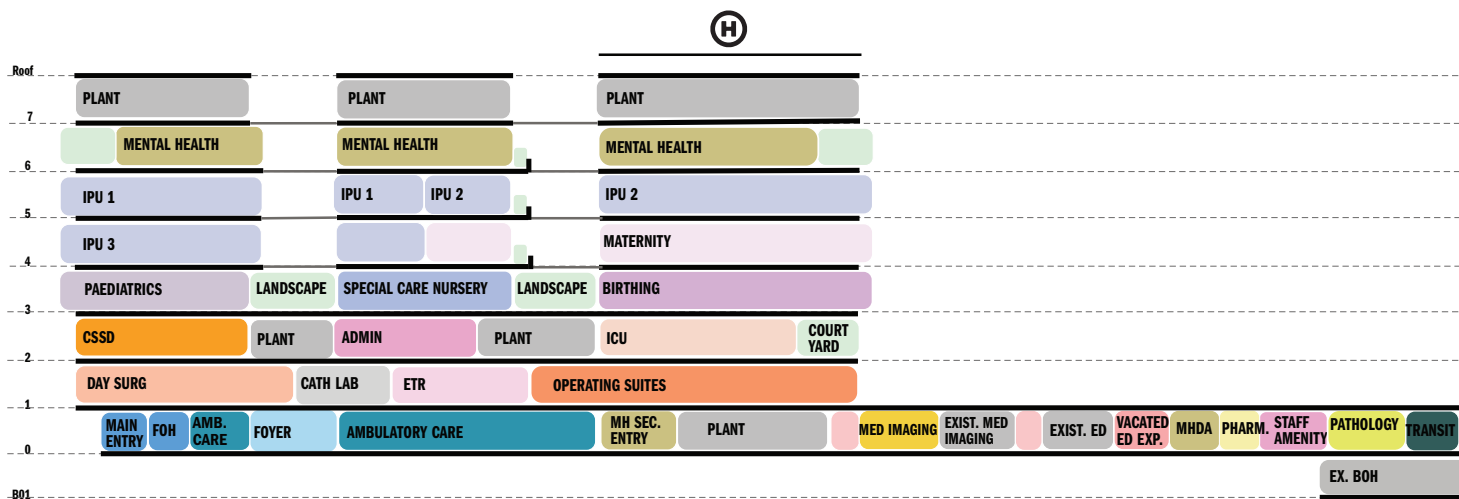
OPTION 3.2



- Mental Health moved to Level 06, offering commanding views of the district and ensuring no overlooking of other departments.
- Distributed ETR located on the theatre level and ICU, with opportunities for future expansion.
- Distributed Admin positioned on the ICU and Maternity levels.

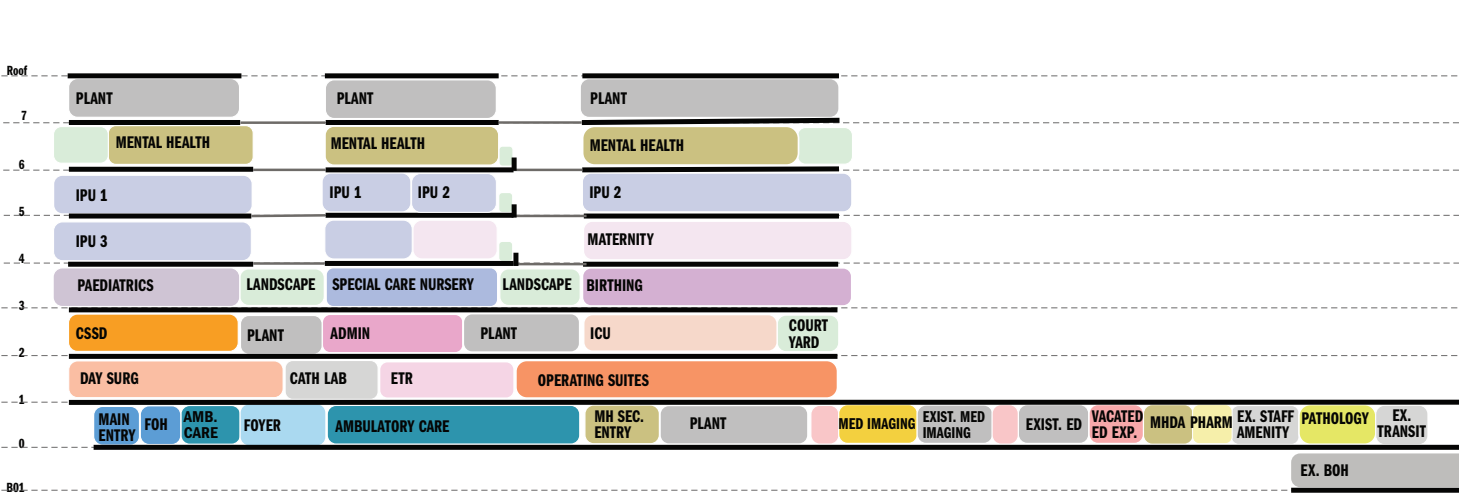
OPTIONS DEVELOPMENT

OPTION 3.3 (CD Workshop 3)



- Mental Health relocated to Level 06, offering impressive views of the district while respecting the privacy of other departments.
- End-of-Trip facilities consolidated on Level 01, as requested by AWH.
- Similarly, Administration offices have been centralised on Level 03, also in response to AWH's request.
- Updates have been made to the Inpatient Unit (IPU) levels, incorporating a race track typology across all inpatient units for improved functionality.

OPTION 3.4 (Recommended Option)



- Through further consultation with AWH, Vic Health and HI, the preferred option 3.3 was optimised to better align the base concept design with the project budget. The following changes were made from the previously agreed upon Block and Stack:
- Review of the Helipad inclusion and agreement that fixed winged aircraft transfer via Albury Airport be maintained as per current operations. Future location of Helipad to be provided in the long term Master Plan
 - Review of the Transit care facility. Existing transit care to remain with the potential expansion into the vacated existing 'ED Yellow' with no additional refurbishment works
 - Existing Medical records and staff amenities departments reviewed. Existing departments to remain
- The existing central corridor to be partially retained, reducing operational disruption and maintaining existing mixed flow transfers from the ED and the new the CSB into the existing IPU wards.

7.4

IPU ASSESSMENT

The proposed design of the CSB for Albury challenges the familiar IPU typology, by integrating courtyards with a combined single corridor and design. Health Infrastructure sought a comprehensive evaluation of this concept before its adoption. To assess the effectiveness and feasibility of this proposal, HI conducted three workshops. These workshops aimed to ensure that the proposed design prioritises staff safety and facilitates care delivery in a safe and effective manner.

The design underwent an evaluation against a series of assessment criteria and was benchmarked against recently completed IPU designs, leveraging insights from clinical experts experiences. The workshops generated valuable feedback, leading to refinements in the design to address identified concerns. This process gained approval and trust from the client to move forward with the proposed design in the next stage of the project.



IPU ASSESSMENT 01

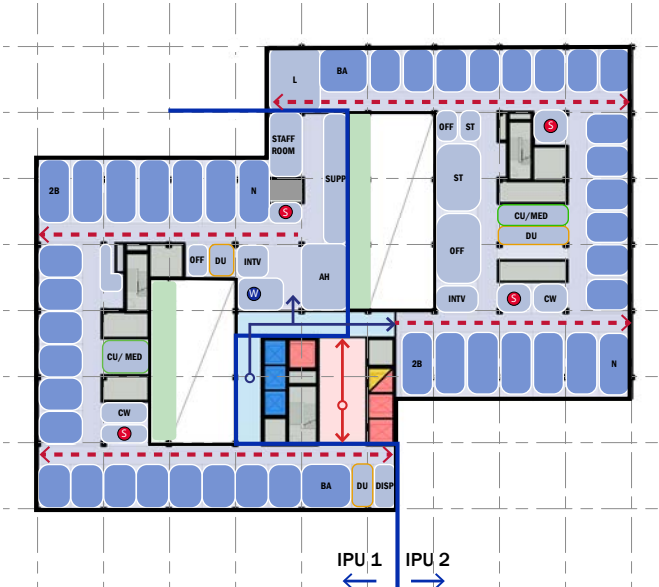
19.12.23

Invitee:

- HI Health Planning Advisor
- HI Consultant Team

Discussion/Key Outcomes:

- Comparative analysis measured key distances from CU/ DU to furthest bedroom in AWRHP IPU's and other NSW health facilities.
- Comparative analysis also conducted for distances from clinical core to furthest bedroom in IPU units.
- 2-bedroom units increased to 6 per 28-bed IPU. Side by side room design preferable over toe to toe.
- IPU 2 preferred for its race track design over IPU 1.
- Further refinement needed for IPU 1 to enhance safety for patients and staff.
- Testing of N class bedroom configuration on narrower, deeper footprint planned to reduce IPU size planned to reduce IPU size.



IPU ASSESSMENT 02

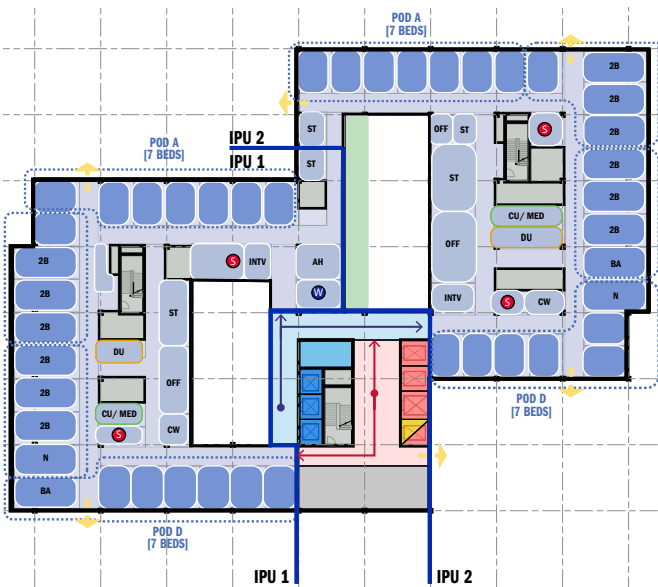
31.01.23

Invitee:

- NSW and VIC Clinicians
- HI Health Planning Advisor
- HI Consultant Team
- VHBA

Discussion/Key Outcomes:

- Benchmarking exercise conducted with NSW and VIC Health projects compared to proposed AWRHP IPU's, finding comparable average walking distances.
- Discussion on single corridor and race track typologies across health facilities with a preference for race track confirmed.
- Further alignment needed to standardise AWRHP IPU's
- Race Track Design preferable for both IPU's on floor plate over single corridor design – to avoid risk of isolation and visibility. Further planning required.
- Models of Care like team nursing and technology discussed with AWH to confirm their Models of Care.



IPU ASSESSMENT 03

15.02.23

Invitee:

- HI Health Planning Advisor
- HI Consultant Team
- HI Executive

Discussion/Key Outcomes:

- All patient bedrooms planned on the external facade.
- Race Track Design incorporated for both IPU's to reduce isolation and increase visibility.
- Cognitively impaired patient management is better in Race Track Design.
- Side by Side 2 bedded room – 6 x 2 bedders per IPU.
- Podding of beds based on team staffing model – 4 x pods of 7 beds per IPU.
- Dual Access to CU/DU as per racetrack design preferable.
- Testing of N class & Bariatric bedroom configurations on a narrower footprint. Detailed room design to be conducted in the SD phase.
- Acknowledged planning adjustments response to issues raised in 31.01.24 meeting - proposed design supported.

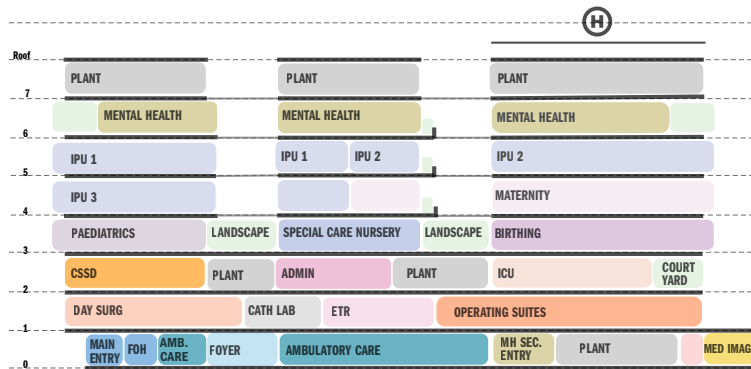
7.5

MENTAL HEALTH ASSESSMENT

During Concept Design Workshop 3, AWH expressed concerns regarding the proposed relocation of the Mental Health unit to the top level of the CSB. The primary issues were the proximity to the helipad and rooftop plant, which could cause noise and visual disturbances for the patients. The team reviewed the advantages and disadvantages of placing the Mental Health unit on various levels, as outlined on this page.

There were noted concerns about proximity to the proposed helipad.

Regarding the rooftop plant, significant attention has been given to the placement of noisy equipment to minimise its impact on the Mental Health unit below. Further development during the Schematic Design phase will include acoustic treatments to ensure that the design of the Mental Health unit is not compromised.



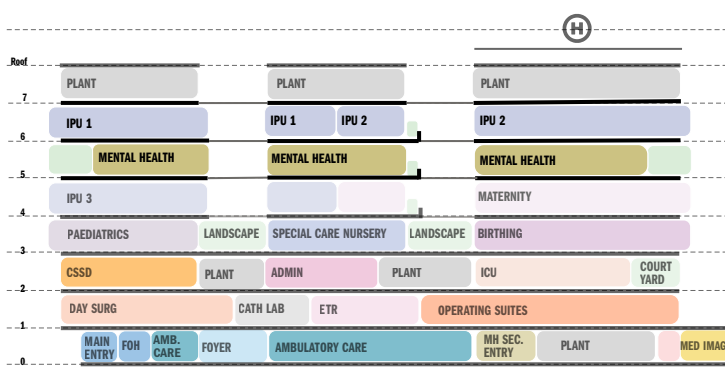
OPTION MENTAL HEALTH @L06

- RECOMMENDED

- PROS**
- Commanding views of district
 - No overlooking other departments
 - Vertical co-location of maternity and birthing is maintained in the options (relative to feedback to date)
- CONS**
- 1 level separation from helipad (refer general notes)

KEY TRAVEL DISTANCES

MHAOD	→ Mental Health	→ 3 min 37 sec
MH Secure Entry (SP)	→ Mental Health	→ 1 min 31 sec



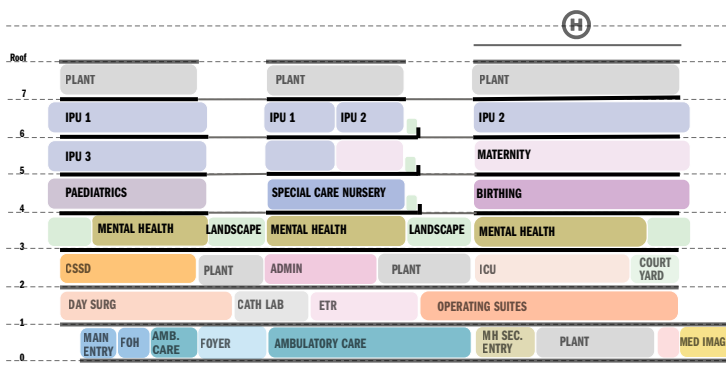
OPTION MENTAL HEALTH @L05

- NOT RECOMMENDED

- Pros**
- 2 level separation from helipad (refer general notes).
 - Travel distances/time reduced.
 - Vertical co-location of maternity and birthing is maintained in the options (relative to feedback to date)
- Cons**
- Overlooked by IPU 1 and 2.
 - Separation of IPU 1 and 2 from IPU 3.

KEY TRAVEL DISTANCES

MHAOD	→ Mental Health	→ 3 min 33 sec
MH Secure Entry (SP)	→ Mental Health	→ 1 min 27 sec
ED	→ IPU 1+2	→ 2 min 43 sec



OPTION MENTAL HEALTH L03

- NOT RECOMMENDED

- Pros**
- 4 level separation from the helipad (refer general notes).
 - Travel distances/time reduced.
 - Vertical co-location of maternity and birthing is maintained in the options (relative to feedback to date)
- Cons**
- Overlooked by all IPU departments including maternity, birthing and paediatrics.
 - Separation of birthing from operating theatres by 2 levels
 - Access to courtyards from paediatrics, birthing no longer available – detrimental impact on amenity and connection with country feedback.
 - Southwest of MH – significant “overhang” from L04 floorplate (as co-location of paediatrics, birthing and SCN requires a larger floorplate than MH).

KEY TRAVEL DISTANCES

MHAOD	→ Mental Health	→ 3 min 24 sec
MH Secure Entry (SP)	→ Mental Health	→ 1 min 23 sec
ED	→ Birthing	→ 2 min 35 sec
ED	→ Maternity	→ 2 min 45 sec

MENTAL HEALTH ASSESSMENT

The 32-bed Mental Health Inpatient Unit is organised into three levels of patient care:

- 8 Intensive Care beds
- 3 Medium Care beds
- 21 General Care beds

The proposed typology of the Clinical Support Building (CSB), featuring internal voids and external courtyards, offers significant design benefits for this Mental Health Unit:

- A common entry point from the core enhances staff visibility throughout the unit.
- Common patient areas such as lounges and dining areas, designed with open ends and views of external courtyards, promote openness and allow natural light to penetrate patient-occupied spaces.

- Internal voids facilitate the penetration of natural light into deeper areas of the floor plate.
- Reduced corridor lengths relative to open communal spaces create a more therapeutic and supportive environment for both patients and staff.



PREFERRED CONCEPT DESIGN
BLOCK AND STACK DIAGRAM

REFURBISHMENT OF
EXISTING WORKS

Level 0 - ED expansion, MHAOD,
Transit, Pathology, Pharmacy,
Medical Imaging

NORTHEAST BUILDING

Level 0 - co-located
Ambulatory Care and
Allied Health

Level B1 - Co-located
Workstation & Library

CLINICAL SERVICE BUILDING

Level 7 - Plant and Roof

Level 6 - Mental Health

Level 5 - 2 x IPU

Level 4 - IPU &
Maternity

Level 3 - Paediatrics,
Birthing, Special Care
Nursery

Level 2 - CSSD, Plant,
ICU, Admin

Level 1 - Day Surgery,
Operating Suites, Cath
Lab, ETR

Level 0 - Entry, MH
secure entry, FOH,
Ambulatory Care, Plant

LEGEND	
	Ambulatory Care
	Front of House
	Day Surgery
	Operating Suites
	Cath Lab
	ETR
	CSSD
	ICU
	Plant
	Admin
	Paediatrics
	Special Care Nursery
	Birthing
	Maternity
	IPU
	Mental Health
	ED Expansion
	MHADO
	Transit
	Pathology
	Pharmacy
	Medical Imaging
	Public Circulation Corridor
	Staff Circulation Corridor
	Existing Building

7.6 PREFERRED CONCEPT DESIGN

The Block and Stack axonometric diagram, shown on the previous page, summarises the Concept Design.

Clinical Services Building (CSB)

The Clinical Services Building (CSB) is a 7-story structure designed to accommodate future growth and flexibility. On the ground floor it incorporates Ambulatory Care and Front-of-House (FOH) areas to allow for future expansion and the potential relocation of Medical Imaging and Emergency Services as part of the long term masterplan strategy. Key plant facilities, including the substation and switch room, are located on the southeast corner of the ground floor. The building also features a secure entry for Mental Health, with direct access to patient lift and discreet patient transfer vehicle access from the east.

Level 1: Interventional Floor

This level is the main interventional level and includes seven operating theatres (one hybrid), a Cath Lab, and the Day Procedures Unit. It also houses Education and Research facilities, providing room for future expansion of the theatre floor ((in addition to long-term MP expansion to the east)

Level 2: Interstitial Plant Floor

Level 2 serves as the main plant floor and includes the ICU, which is vertically adjacent to the theatres for proximal transfer. This floor also offers potential future connectivity to the north and east, as indicated in the long-term master plan. The CSSD is positioned directly above the theatres, with separate dirty and clean lifts. Staff administration spaces are also located on this floor.

Level 3: Women’s and Children’s floor

This floor has two internal courtyards shared by Paediatrics, Birthing and the Special Care Nursery. The Maternity Assessment Unit and Birthing area have direct access to one courtyard, allowing for outside consultations. Paediatrics and the Special Care Nursery share staff areas, public entry and reception, with access to the second courtyard.

Level 4: Maternity and Inpatient Units

The Maternity and Inpatient Unit is situated directly above the Birthing area, with a fire stair providing direct access for staff between the two. This floor also

includes an additional Inpatient Unit and shared Allied Health spaces

Level 5: Inpatient Units

This level includes two Inpatient Units with shared Allied Health spaces centrally located.

Level 6: Mental Health Floor

Dedicated to Mental Health, Level 6 features courtyards facing west, north, and east, offering commanding views of the district.

Level 7: Rooftop Plant Level

The rooftop houses plant equipment, with careful placement and acoustic buffering to minimise vibration and noise impact on the Mental Health unit below.

Northeast Building

Staff administration and training facilities located on B01, Ambulatory care and Allied Health located on L00.

Refurbishment of Existing

The Concept Design proposal for the project scope retains key existing buildings and departments, including the Medical Wards, Medical Imaging, Emergency Department services, and Back of House (BOH) services including

Executive Offices, Staff Amenities, and Medical Records. The design also re-purposes the current operating theatres and CSSD into new Pharmacy and Pathology departments, strategically located near the existing loading dock and Back of House services.

Additionally, the existing ICU/Pathology will be re-purposed into a new Mental Health Alcohol + Other Drug Unit (MHAOD) with a 14-Bay ED expansion proposed adjacent to the existing Emergency Department. This includes opportunity for a separate, discrete access point for patient transport vehicles and drop-off for the MHAOD unit.

The BOH/loading dock will continue to operate with the existing two logistics lifts, with plans for future waste storage capacity and operational improvements. This includes implementing operational enhancements and re-purposing infrastructure. For detailed information, please refer to the Logistics Assessment by Deloitte included in the Appendices.

Vertical Cores

The main vertical circulation core is centrally positioned within the Clinical Services Building (CSB), featuring a consolidated core that includes three public lifts, three staff/patient lifts, one logistics lift, and a fire/staff

communication stair, making the core highly efficient. Staff/patient lifts and pathways have restricted, controlled access, limited to staff and escorted patient transfers.

A secure staff/patient/logistics circulation corridor links the new CSB to the existing Emergency Department, Medical Imaging, and Back of House (BOH) services. The existing central corridor is partially retained, facilitating mixed-flow transfers from the ED and the new CSB into the existing inpatient unit (IPU) wards. The existing BOH lifts are maintained, with operational enhancements planned for the BOH/loading dock.

Three drop-off locations are proposed for different cohorts of patients. The public drop-off and access is to the north of the CSB, with hospital street access in both east-west and north-south directions, providing easy access for the public from either the north-west or south-east public car parks.

Secure and discrete access for Mental Health patients is provided on the ground floor of CSB for acute mental health referrals from the community that are known to the service and safe for transfer directly to the IPU instead of via the ED.

The ED entry for acute presentations for assessment and disposition decisions is

maintained as per the current hospital design.

Discrete but direct entry into the Mental Health Alcohol and Other Drugs (MHAOD) HUB north of the Ambulance entry has been provided. Referrals to this unit predominantly come from the ED after patient assessment. Direct admissions to this unit are for known mental health and drug & alcohol patients requiring short-term assessment up to 72 hours.

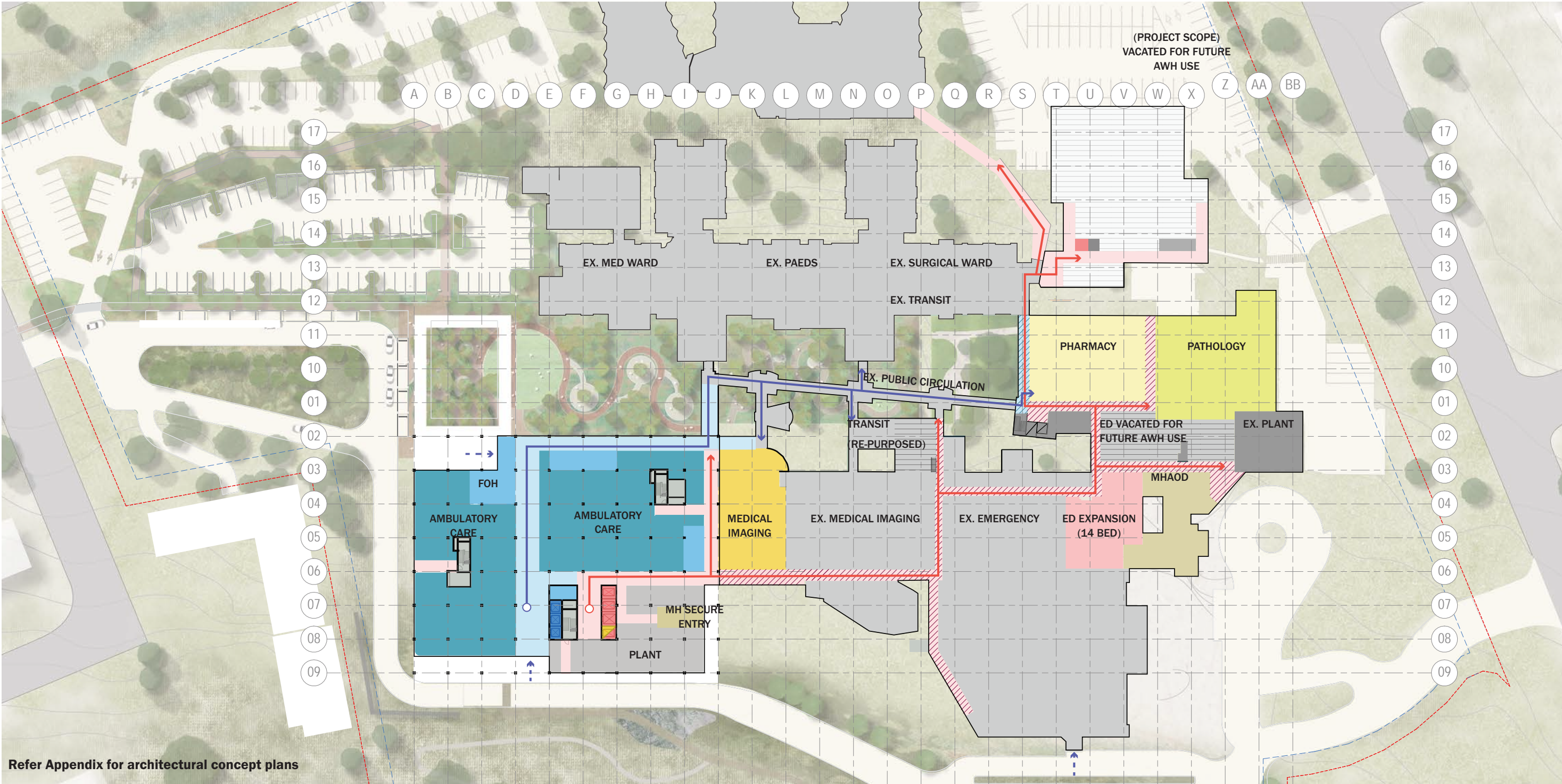
Disaster Mode Management

A dedicated external area will be designated for patient management during disaster mode, expanding the existing Emergency Department. This area could be the proposed discrete but direct entry zone to the Mental Health Alcohol and Other Drugs (MHAOD) HUB, located north of the ambulance entry. Infectious patients could be isolated for direct transfer from the ambulance to this external zone. Further details of disaster management will be developed during the Schematic Design phase.

SITE PLAN

LEGEND

- Public Circulation
- Staff Circulation
- Public Circulation Corridor
- Refurbished Public Circulation Corridor
- Staff Circulation Corridor
- Refurbished Staff Circulation Corridor
- Existing Building



Refer Appendix for architectural concept plans

CSB DEPARTMENT PLANS

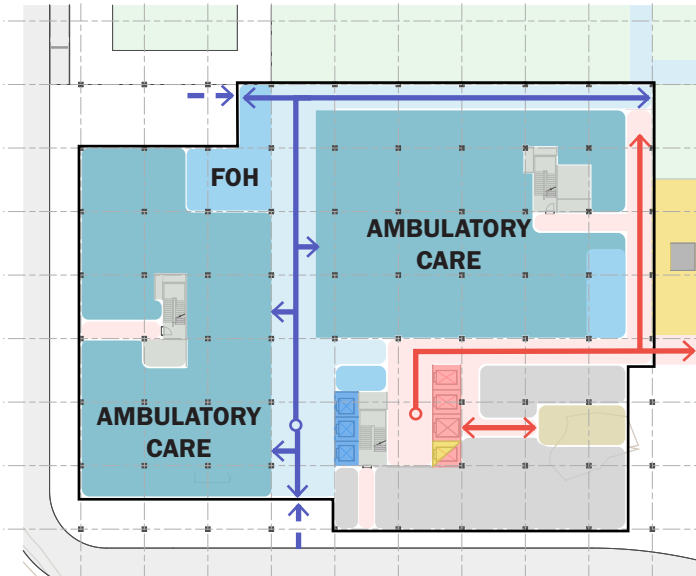
LEGEND

Public Circulation

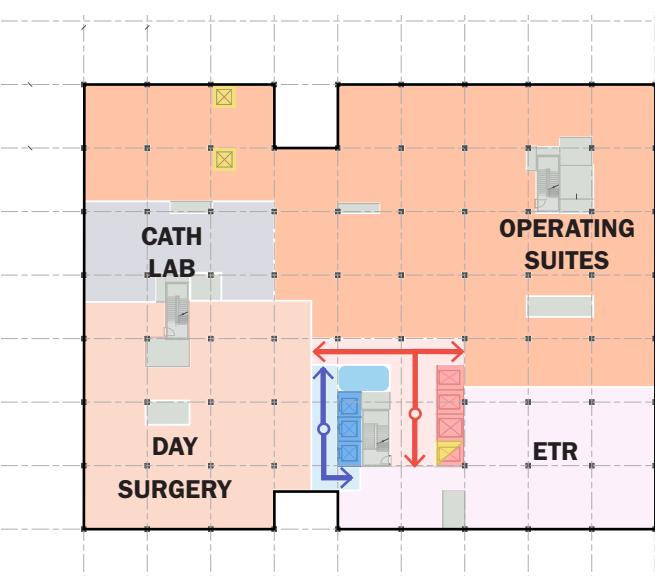
Staff Circulation

Public Circulation Corridor

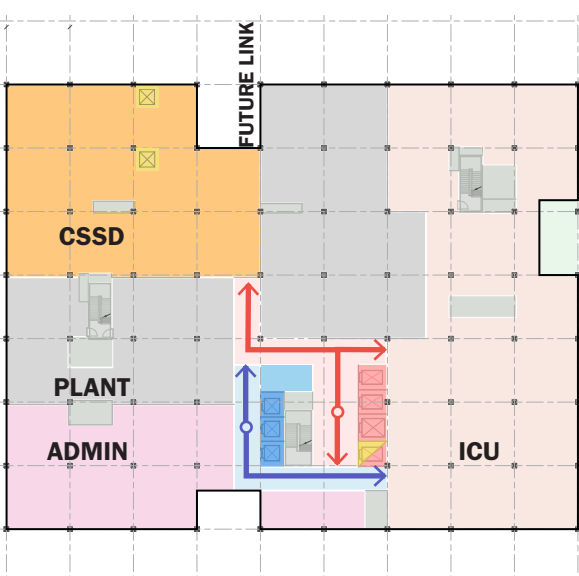
Staff Circulation Corridor



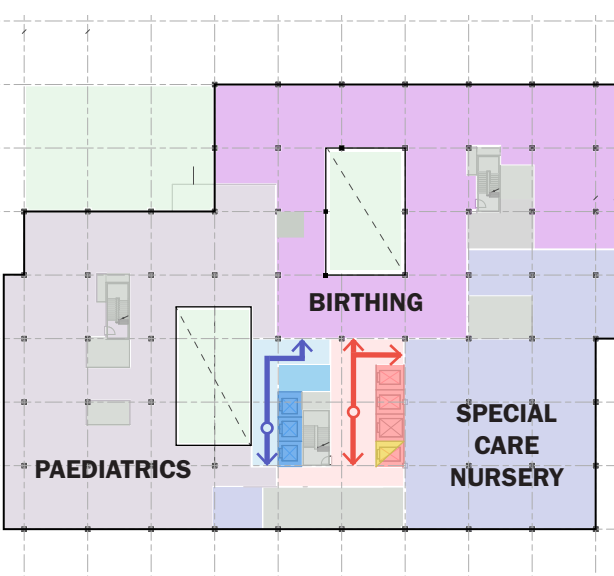
L00



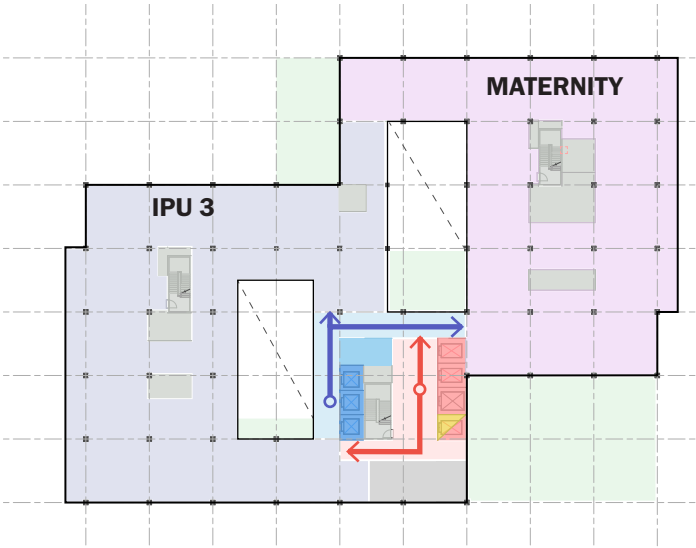
L01



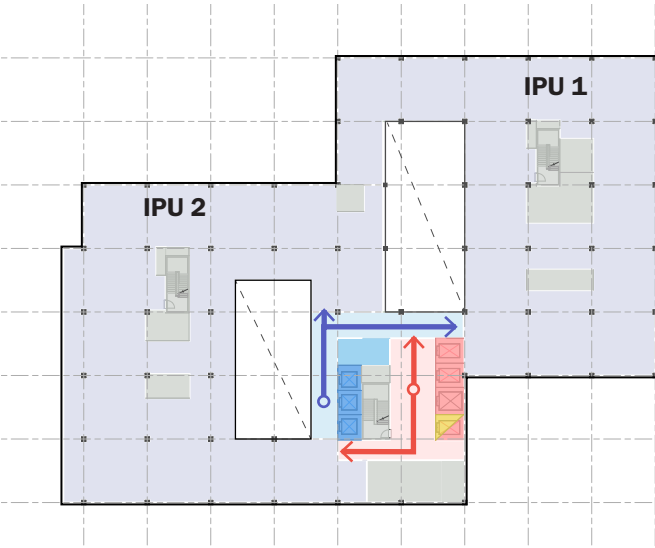
L02



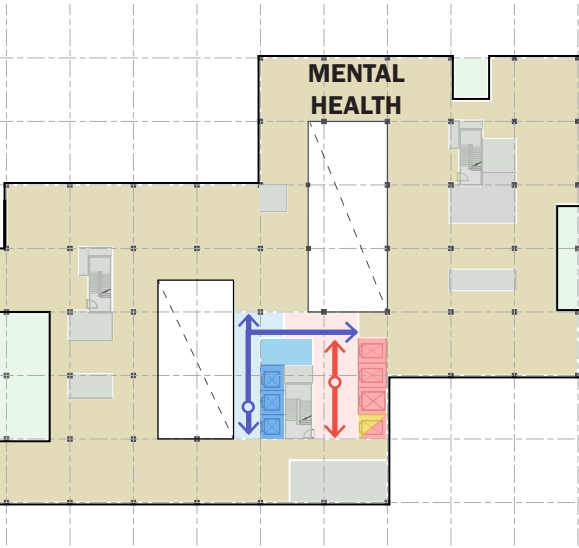
L03



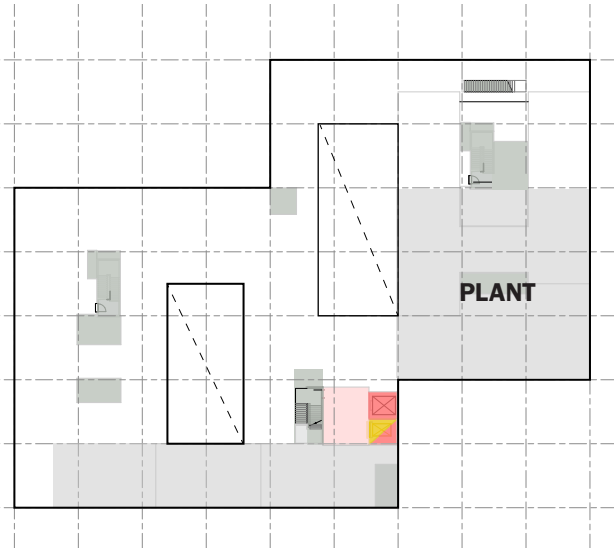
L04



L05



L06



L07

Refer Appendix for architectural concept plans

7.7

NORTHEAST BUILDING

The northeast building design, including the SOA, is ongoing. The following summaries the intent at the time of writing this report.

As part of the early works scope, several options and locations were explored during the concept design phase. Various locations were considered, ranging from the north-west near the existing Keene Street entry to the north-east near the existing staff car park entry. Split services were also evaluated using a combination of NW and NE site locations.

However, during this process, the initial plan for a temporary demountable building evolved into a proposal for a more permanent structure. This approach has the long term benefits of:

- Reduced abortive or temporary works
- More cost effective over the long-term
- Provision of space for longer-term use including enabling future staged expansion
- Sustainability benefits
- Reducing waste

AWH and HI determined that the building would need to be on-site for a medium term period, necessitating a robust, permanent construction, possibly modular to allow for future dismantling

and reassembly for health service use. This decision led to the proposed location in the north-east corner of the site to avoid impacting the main drop-off and front-of-house of the proposed CSB. This location also ensures direct connectivity to the existing hospital and back of house services.

Several options were explored and presented to AWH/HI based on the scope of services to be housed within this building. Initially, some allied health services were planned to be off-site in community facilities, but during the concept design phase, it was decided that all off-site services would be included in this northeast building. The final design was based on the schedule of accommodation V0.11, encompassing all the required services. The main features of the proposal during early works are:

- Two-storey building: staff offices and education training and research spaces on the lower ground level.
- Clinical/patient areas: All clinical and patient areas, including the pharmacy, located on the hospital ground level for easy access from existing emergency and medical/surgical wards.
- Lifts: New lift included as per BCA requirements

- Road access: Maintenance of existing road access to the loading dock and staff car park, including swept paths for BOC trucks.
- Parking: Impact on approx. 33 existing car parks, which will be relocated elsewhere on site.

Project Scope/Long-term Master Plan

- Patient Areas: The Master Plan sequencing allows for the patient areas within the northeast building to be decanted into the CSB and existing hospital refurbishment works, freeing up L00 for future use by AWH.
- Staff Areas: B01 will continue to house staff offices and education training and research (ETR) areas.
- Future Use: The vacated hospital ground level could potentially be re-purposed for education and research in alignment with the long-term master plan approach.

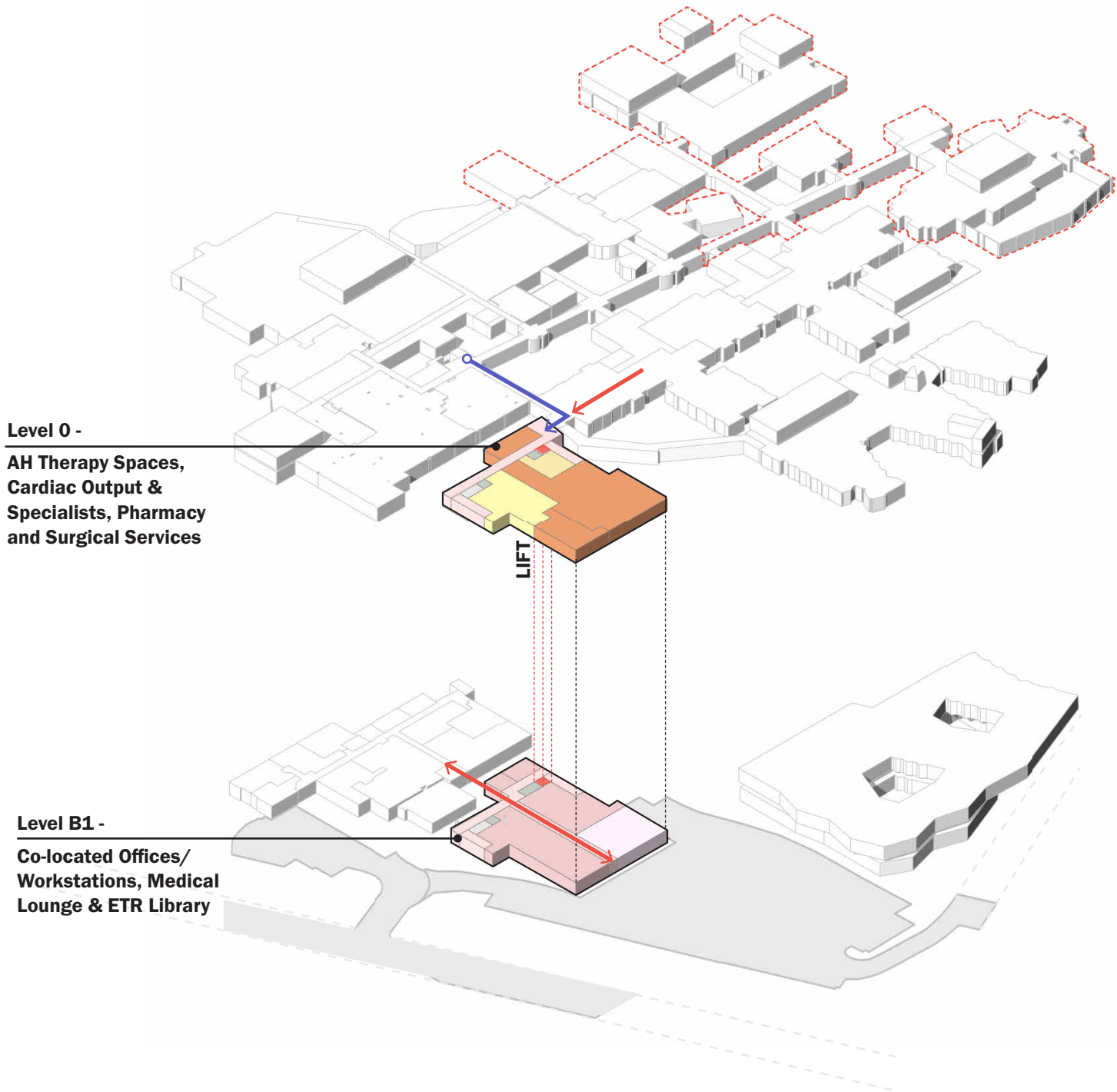
This considered approach ensures that the new building will meet immediate needs while aligning with long-term strategic goals for the site.

Refer to Chapter 10 Appendices for Architectural Concept Plans.

NORTHEAST BUILDING - EARLY WORKS SCOPE

LEGEND

- Public Circulation
- Staff Circulation



7.8

JOURNEY DIAGRAMS

Key Functional Journeys and Travel Times

Travel times are based upon indicated staff routes as noted.

Walking speeds are taken from GTEP Part 13, Section 1.2.2, Gait averaged for a 40 year old female/50 year old male (refer to: Age and Ageing 1997 : R Bohannon).

These are based on a worker carrying no load as defined by The International Labour Office - Geneva, standard for human walking pace

Key Patient Public Mobility Level:

Minimum Walking speed = 0.74 m/s
Maximum Walking speed = 2.39 m/s
Average free flowing walking speed used = 1.33 m/s (80m/min)

Vertical Travel Time:

Anticipated lift waiting times of 50 sec average have been used with a vertical speed of 1.8m/s. **

The data does not include short cuts across courtyards, hot lifts, stairs or the use of hospital street

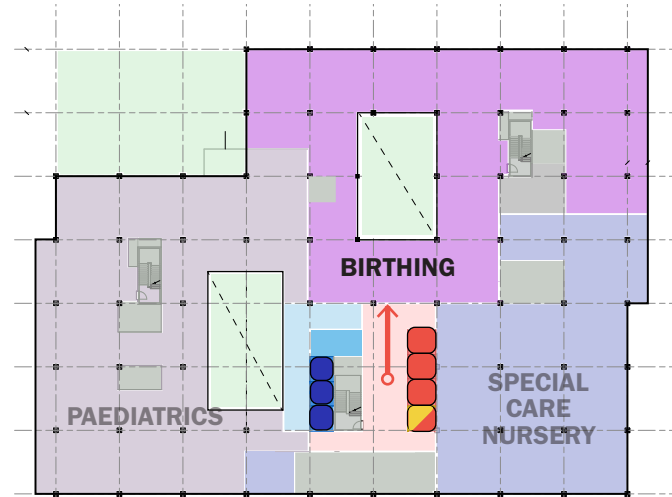
**Anticipated lift waiting time and vertical speed pending detailed lift traffic analysis, which would be undertaken in Schematic Design Phase.

Highlighted journey pathways and times in adjacent table are demonstrated in the following pages as examples.

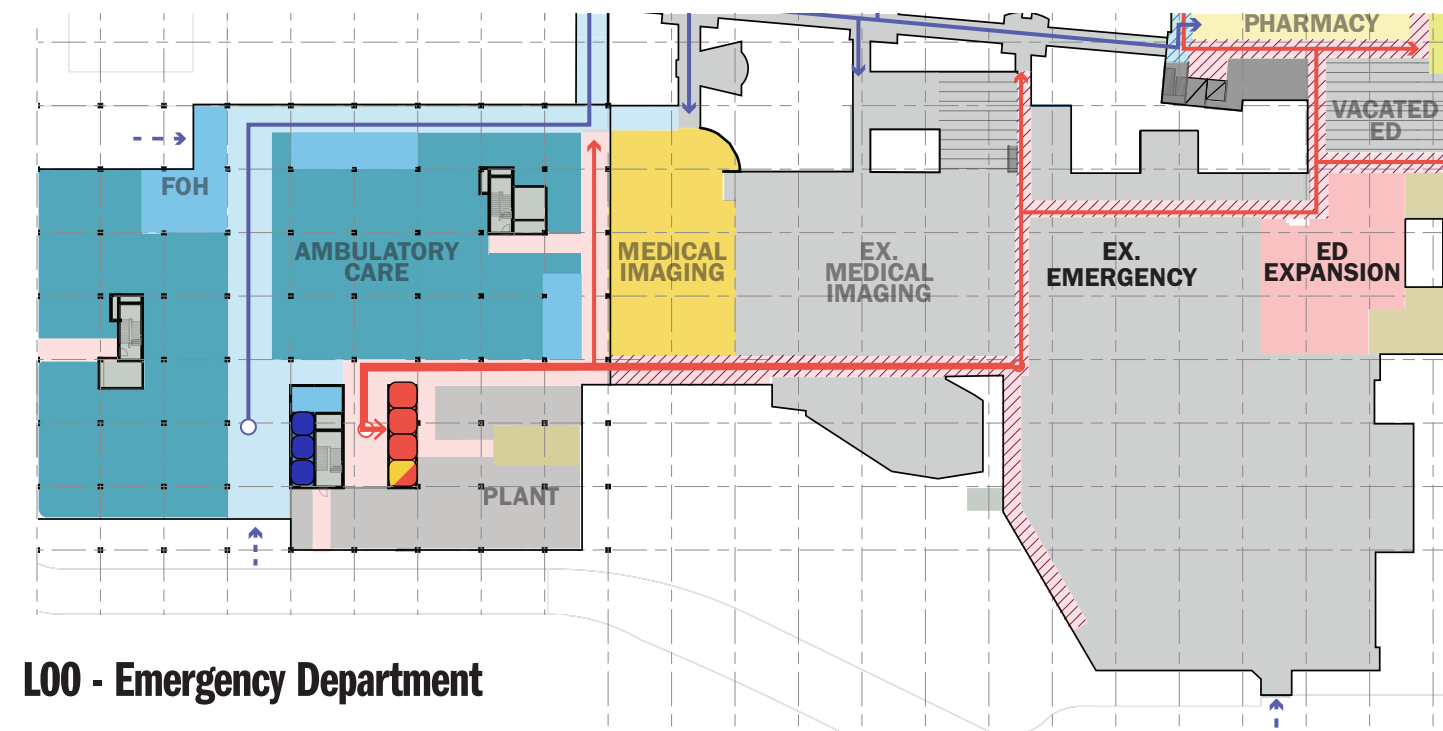
DEPARTMENT	DEPARTMENT	TIME
Operating Suites	ICU	1 min 23 sec
Operating Suites	IPU 1&2	1 min 42 sec
Operating Suites	Existing IPU	2 min 18 sec
Operating Suites	CSSD	1 min 34 sec
ICU	AWRCC	4 min 21 sec
ICU	IPU 1&2	1 min 30 sec
ICU	Existing IPU	2 min 24 sec
SCN	Operating Suite	1 min 17 sec
Paediatrics	Operating Suite	1 min 20 sec
Birthing	Maternity	1 min 18 sec
Birthing	Operating Suite	1 min 24 sec
ED	Birthing	2 min 30 sec
ED	Paediatrics	2 min 25 sec
ED	Special Care Nursery	2 min 26 sec
ED	Operating Suites	2 min 22 sec
ED	ICU	2 min 23 sec
ED	Maternity	2 min 41 sec
ED	IPU 1&2	2 min 39 sec
IPU 1&2	Medical Imaging	2 min 12 sec
IPU 1&2	ED Yellow	3 min 40 sec
MHAOD	Mental health	3 min 37 sec
MH Secure Entry (SP)	Mental Health	1 min 31 sec

JOURNEY DIAGRAMS

ED → Birthing = 2 min 30 sec

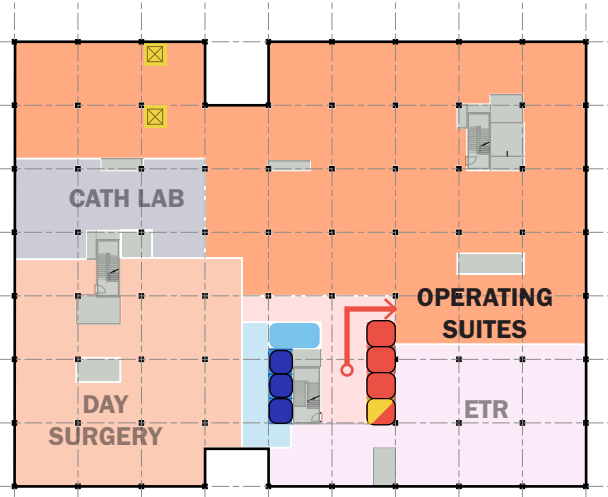


L03 - Birthing

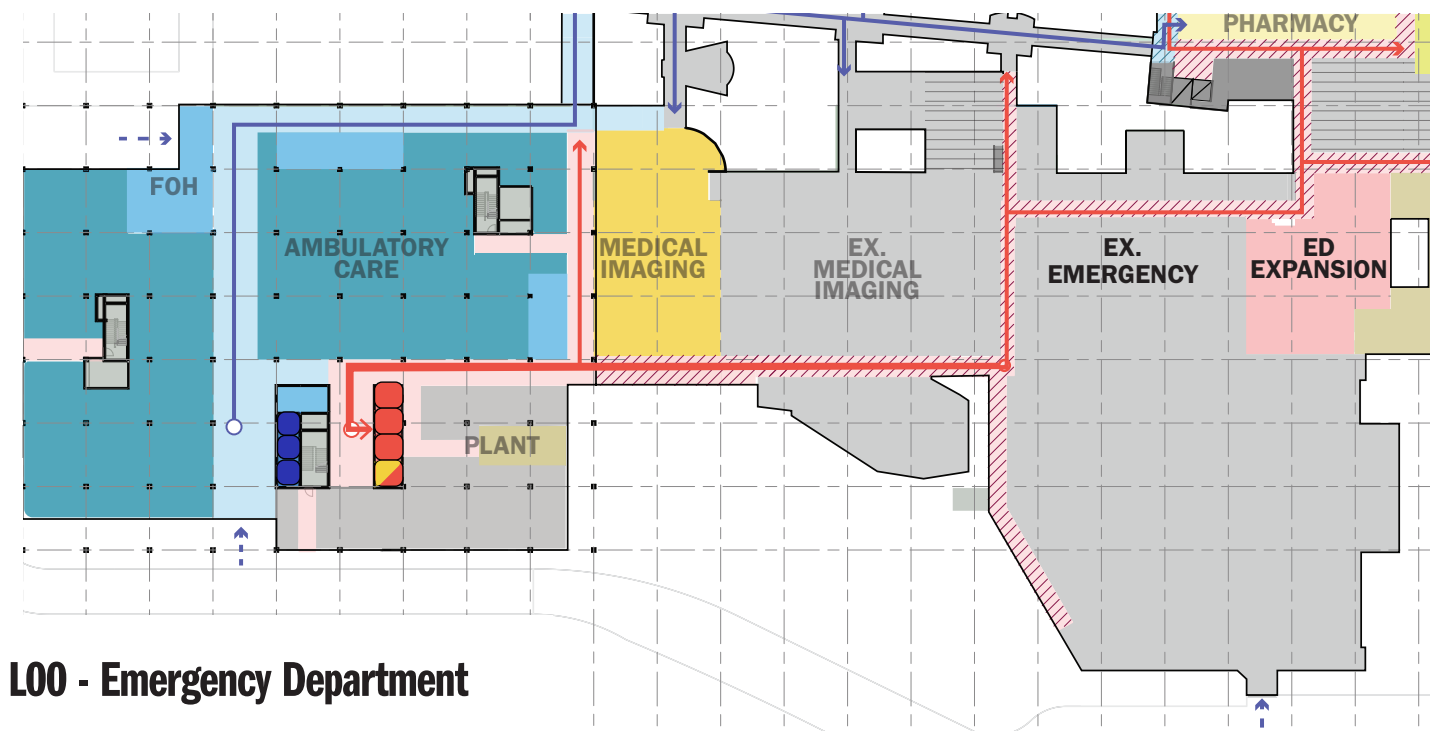


L00 - Emergency Department

ED → Operating Suite = 2 min 22 sec



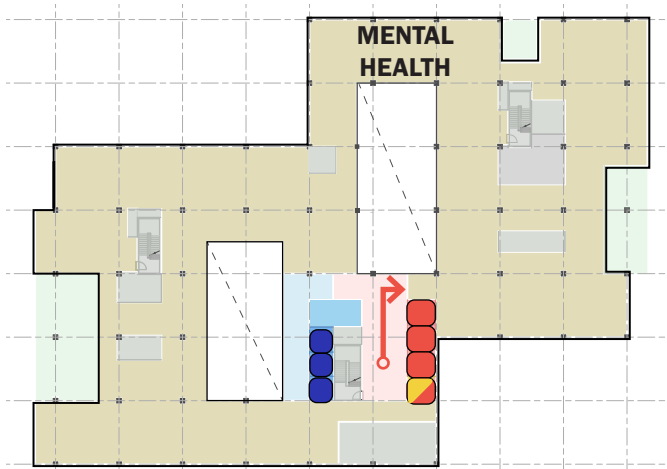
L01 - Operating Suites



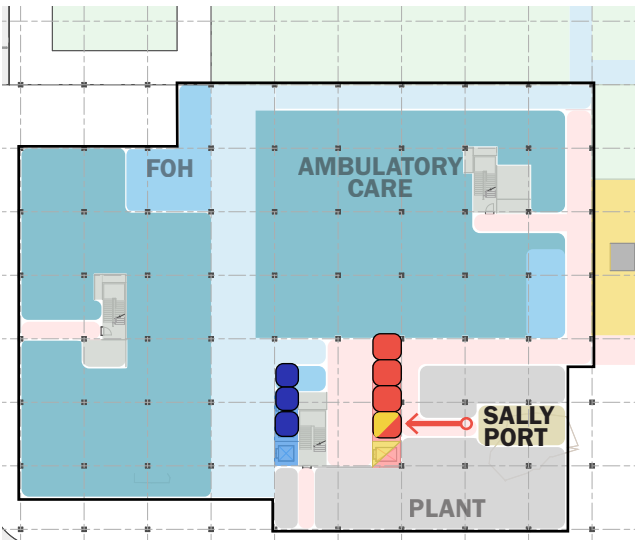
L00 - Emergency Department

JOURNEY DIAGRAMS

MH Secure Entry Point → Mental Health
= 1 min 31 sec

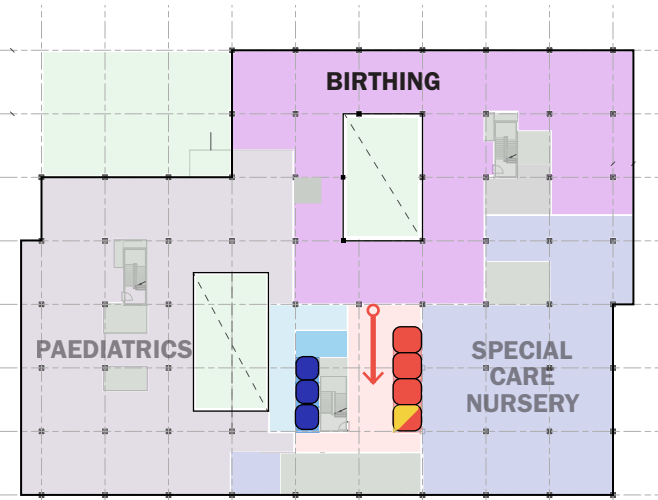


L06 - Mental Health

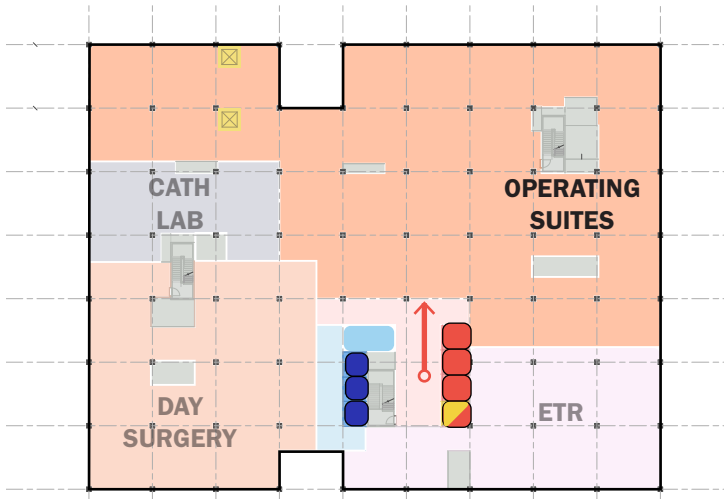


L00 - MH Sally Port

Birthing → Operating Suite
= 1 min 24 sec

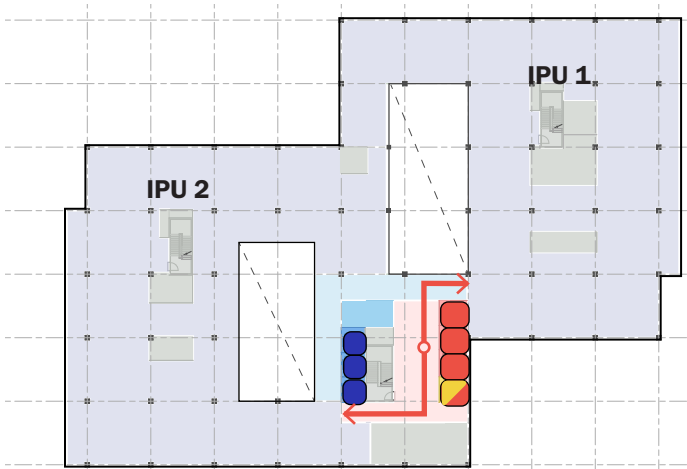


L03 - Birthing

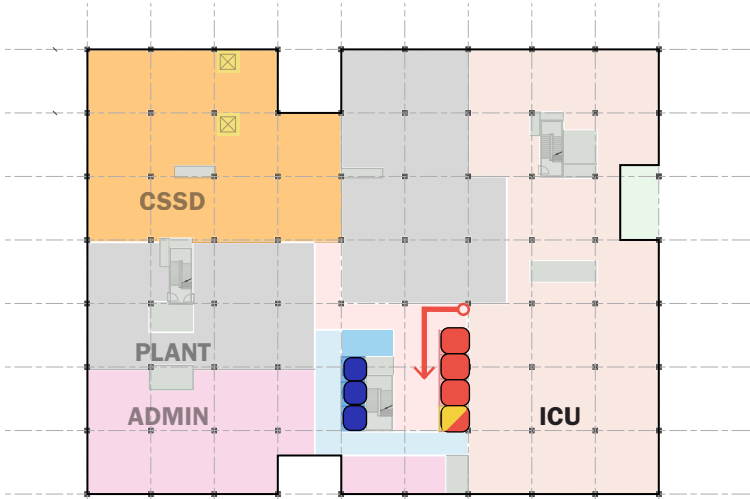


L01 - Operating Suites

ICU → IPU 1&2 = 1 min 30 sec



L05 - IPU 1 & 2



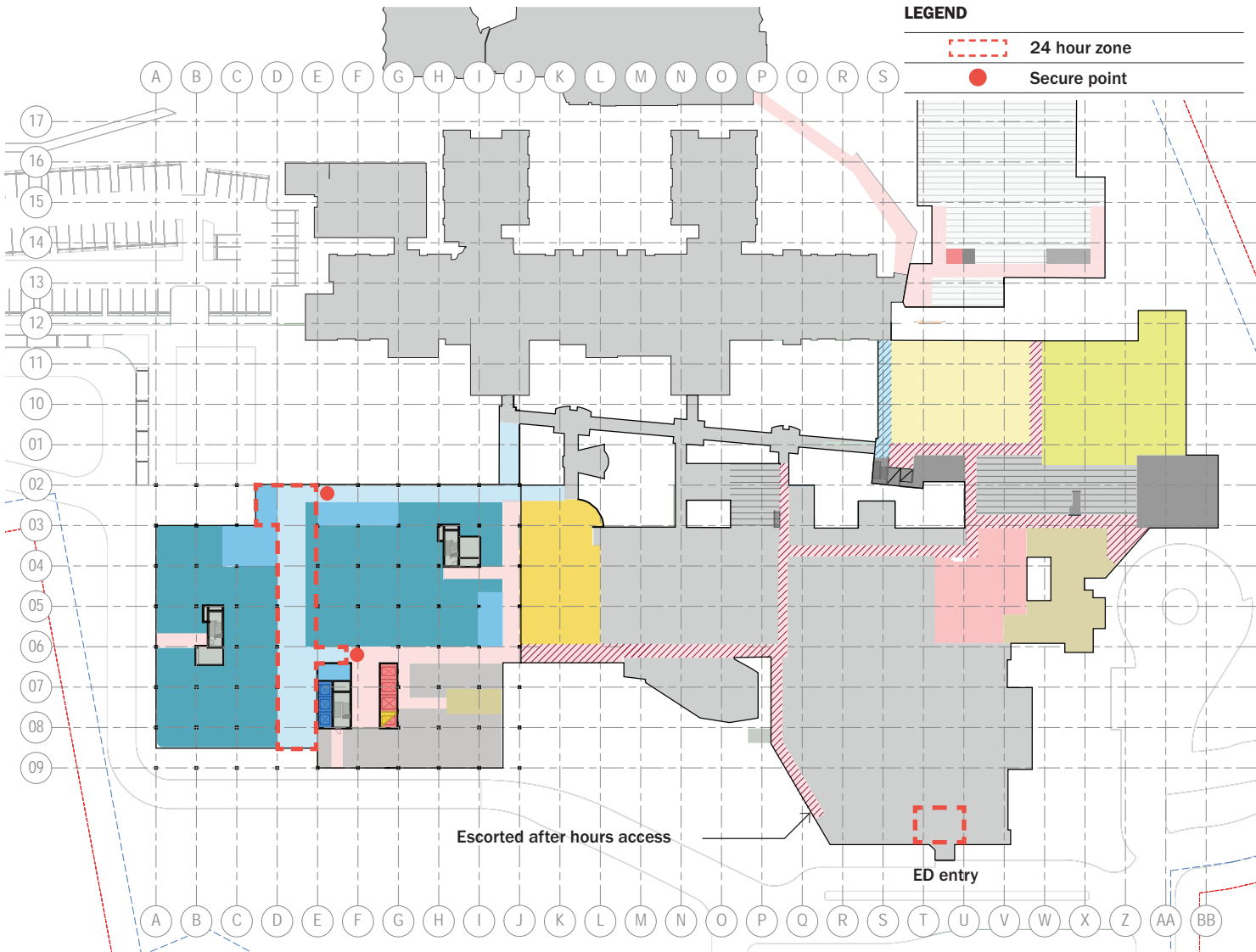
L02 - ICU

7.9

24-HOUR ZONE

The hours of operation and after-hours access, as outlined in the Overarching Function Design brief, are listed below. The diagram illustrates the main entries and 24-hour zones according to the brief. Additional details will be developed during the Schematic Design Phase.

- AWH Albury Hospital campus is accessible 24-hours a day, seven days a week.
 - The main entrance is accessible from 7am to 8pm and thereafter patients and visitors main entry will be via the Emergency Department.
 - A separate secure access point to the birthing unit within CSB will be provided.
 - Hospital services are operating 24-hours include emergency services, critical care services, inpatient services, birthing, and specific clinical (e.g., pathology) and non-clinical (e.g., wards persons) support services.
 - Services operating extended hours include peri-operative services, ambulatory services and clinics, and specific clinical and non-clinical support services.
 - Services typically operating during business hours include a range of clinical and non-clinical support services.
 - There are multiple access points to the entire facility, including a number of secure after-hours access points for staff, visitors, and patients (e.g., maternity). Systems to manage these entrances from within clinical areas (e.g., video intercom systems) will to be incorporated.
- Security will be located near the main entrance within the CSB with a satellite office in the Emergency Department.
 - Some ambulatory care services will offer extended hours of services (e.g., twilight clinics), which would typically align with the main entrance operating hours.
 - Direct after hours access to maternity will be required with appropriate parking, lighting and security measures
 - Pathology courier services will need 24-hour access
 - It is anticipated there will be escorted, after hours access to existing IPU and CSB via the Emergency Department entry



7.10

ZONAL MASTER PLAN

The 2023 Master Plan framework outlines a strategic expansion of the AWHs, focusing on the staged growth of inpatient units, research, and ambulatory services to the north. Additionally, a three-level expansion to the east is facilitated, contingent on relocating Medical Imaging on the ground floor of CSB, to accommodate an expanded Emergency Department (ED), theatres, and Intensive Care Unit (ICU).

The existing ED and Back of House (BOH) services are retained. The incorporation of a long-term Northeast building in the north-east corner, offers additional potential for new research facilities and/or Education and Training Research facility at L00 and expanded BOH facilitates at L00 (over the longer term).

The North East and North West have been identified as potential locations for future partnership opportunities (private hospital, education and key worker/medi hotel).with potential connections to the AWRCC. This strategic positioning facilitates collaborative growth and partnerships within the healthcare ecosystem.

The current infrastructure and core

strategy are further strengthened by adding new cores in the north and east locations. This approach enhances overall connectivity, creating a cohesive and integrated framework for the precinct, improving operational efficiency, and streamlining essential healthcare functions.

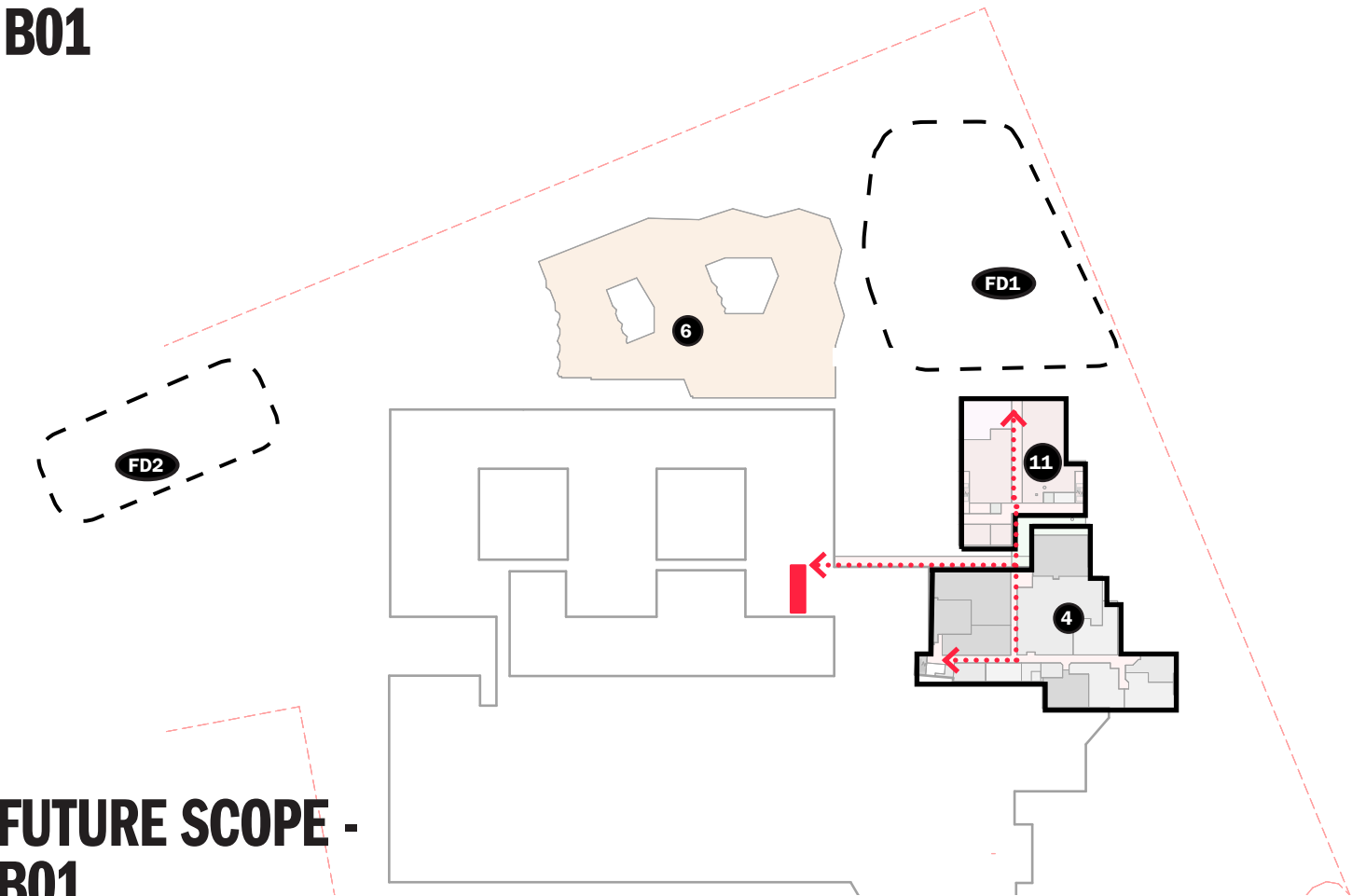
The following diagrams illustrate select clinical, public, and logistics flows both during the project's initial scope and throughout the planned long-term expansion.

LEGEND

- STAFF FLOW
- PUBLIC FLOW
- LOGISTICS FLOW
- STAFF LIFT CORE
- PUBLIC LIFT CORE
- LOGISTICS LIFT CORE

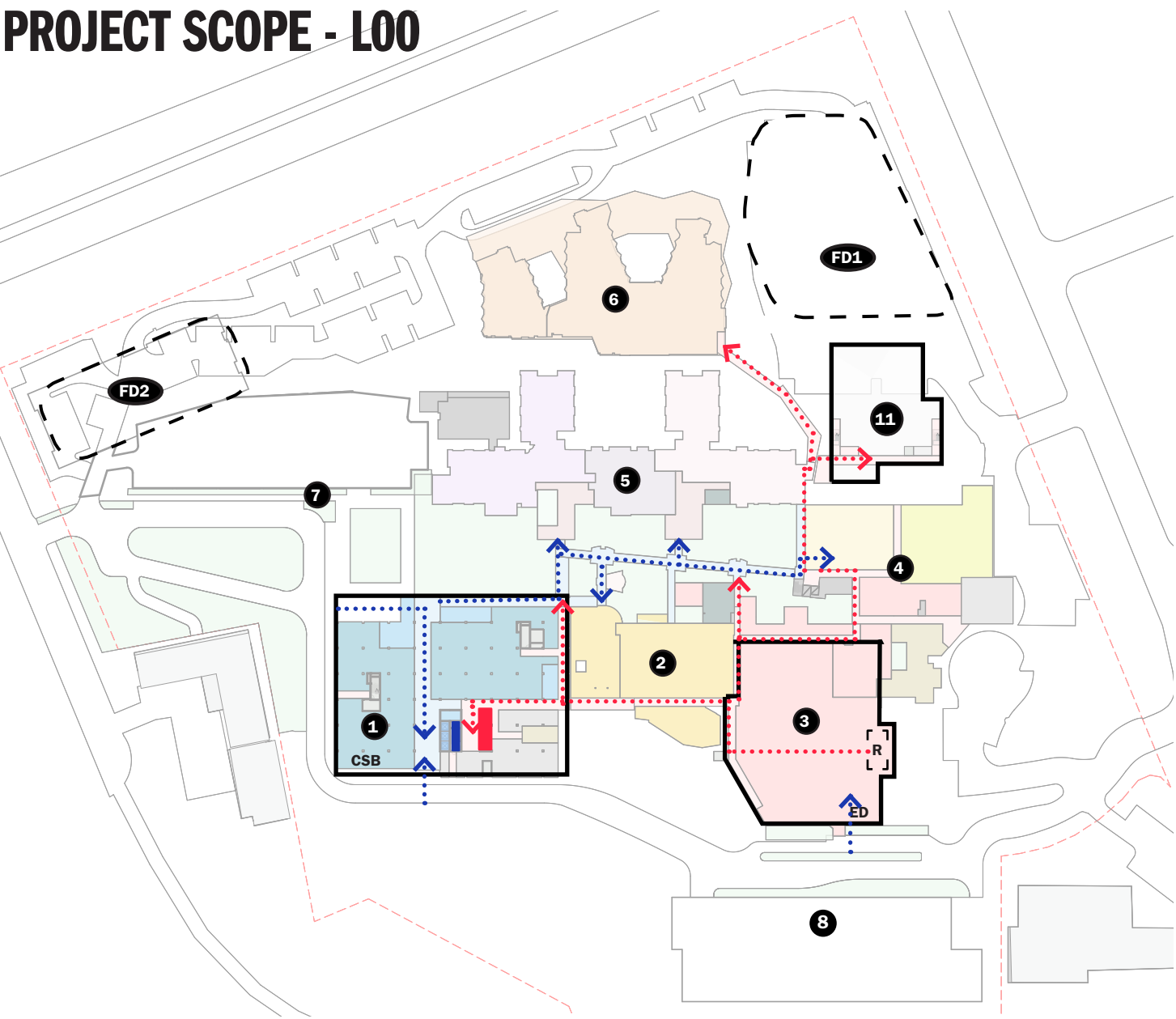
- 1 CSB
- 2 MEDICAL IMAGING
- 3 ED
- 4 PHARMACY, PATHOLOGY, TRANSIT
- 5 MHAOD, STAFF AMENITIES IPU
- 6 CANCER CENTRE (NOT IN SCOPE)
- 7 DROP-OFF
- 8 CARPARK
- 9 AWH FUTURE ACUTE SERVICES
- 10 AWH FUTURE SUB-ACUTE SERVICES/IPU
- 11 EARLY & ENABLING WORKS
- FD1 FUTURE DEVELOPMENT - E.G. PRIVATE HOSPITAL
- FD2 FUTURE DEVELOPMENT - E.G. MEDI HOTEL/STAFF
- R RESUS
- P PHARMACY
- T TRIAGE
- BOH BACK OF HOUSE

PROJECT SCOPE - B01



ZONAL MASTER PLAN

PROJECT SCOPE - L00



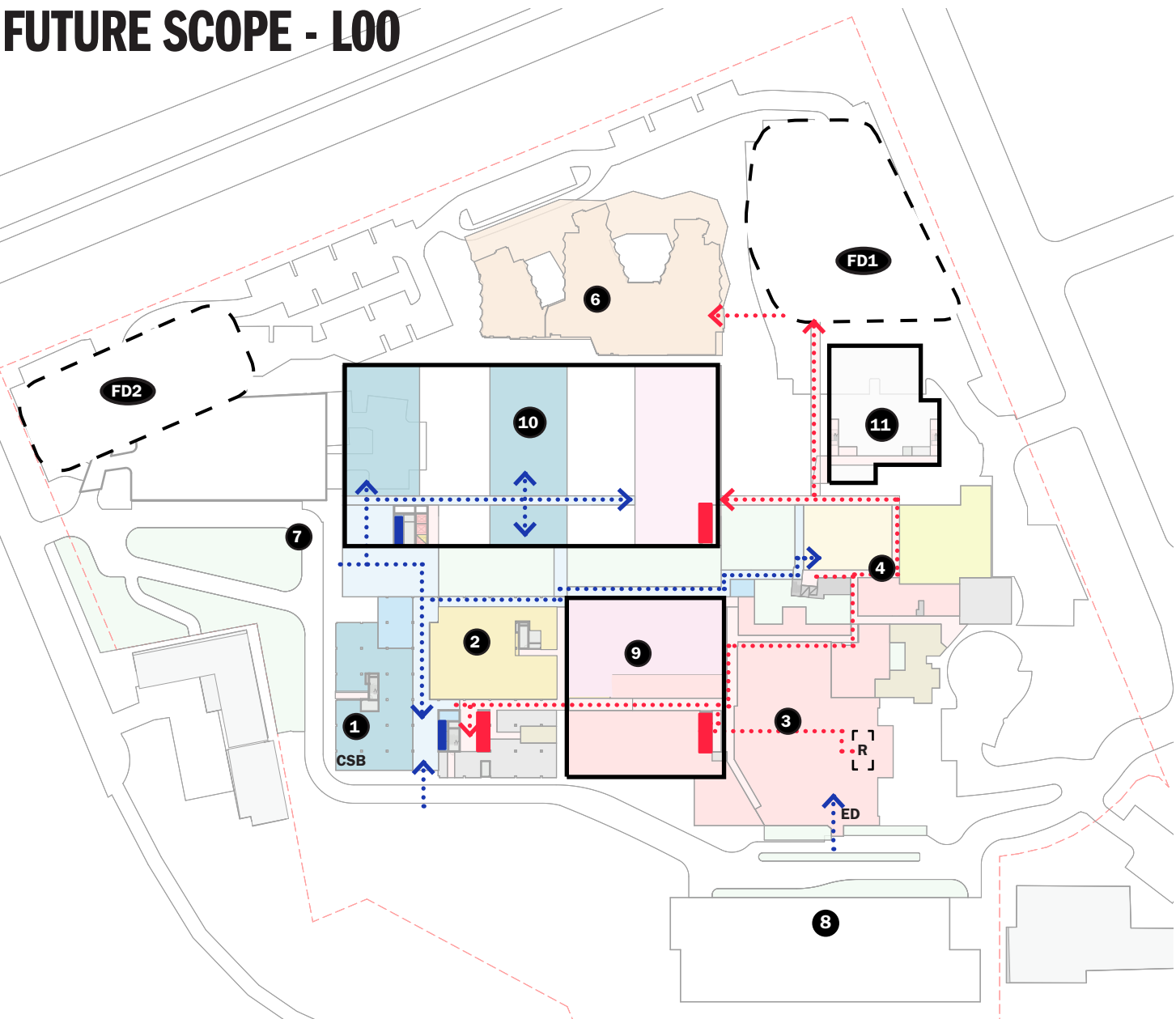
LEGEND

- R RESUS
- P PHARMACY
- T TRIAGE
- BOH BACK OF HOUSE
- EX EXISTING

- STAFF FLOW
- PUBLIC FLOW
- LOGISTICS FLOW
- STAFF LIFT CORE
- PUBLIC LIFT CORE
- LOGISTICS LIFT CORE

- 1 CSB
- 2 MEDICAL IMAGING
- 3 ED
- 4 PHARMACY, PATHOLOGY, MHAOD, STAFF AMENITIES

FUTURE SCOPE - L00

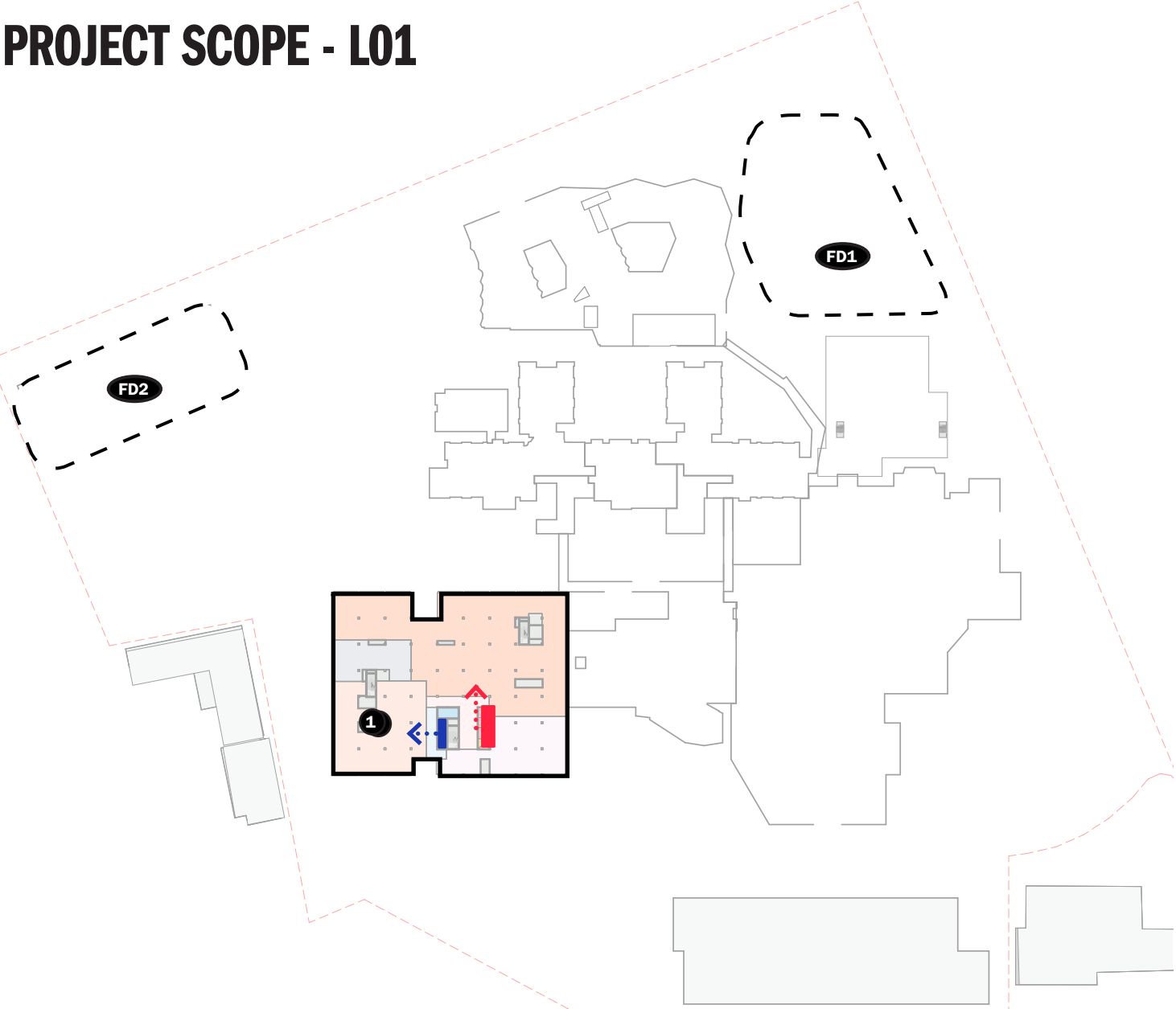


- 5 IPU
- 6 CANCER CENTRE (NOT IN SCOPE)
- 7 DROP-OFF
- 8 CARPARK
- 9 AWHs FUTURE ACUTE SERVICES

- 10 AWH FUTURE SUB-ACUTE SERVICES/IPU
- 11 EARLY & ENABLING WORKS
- FD1 FUTURE DEVELOPMENT - E.G. PRIVATE HOSPITAL
- FD2 FUTURE DEVELOPMENT - E.G. MEDI HOTEL/STAFF

ZONAL MASTER PLAN

PROJECT SCOPE - L01



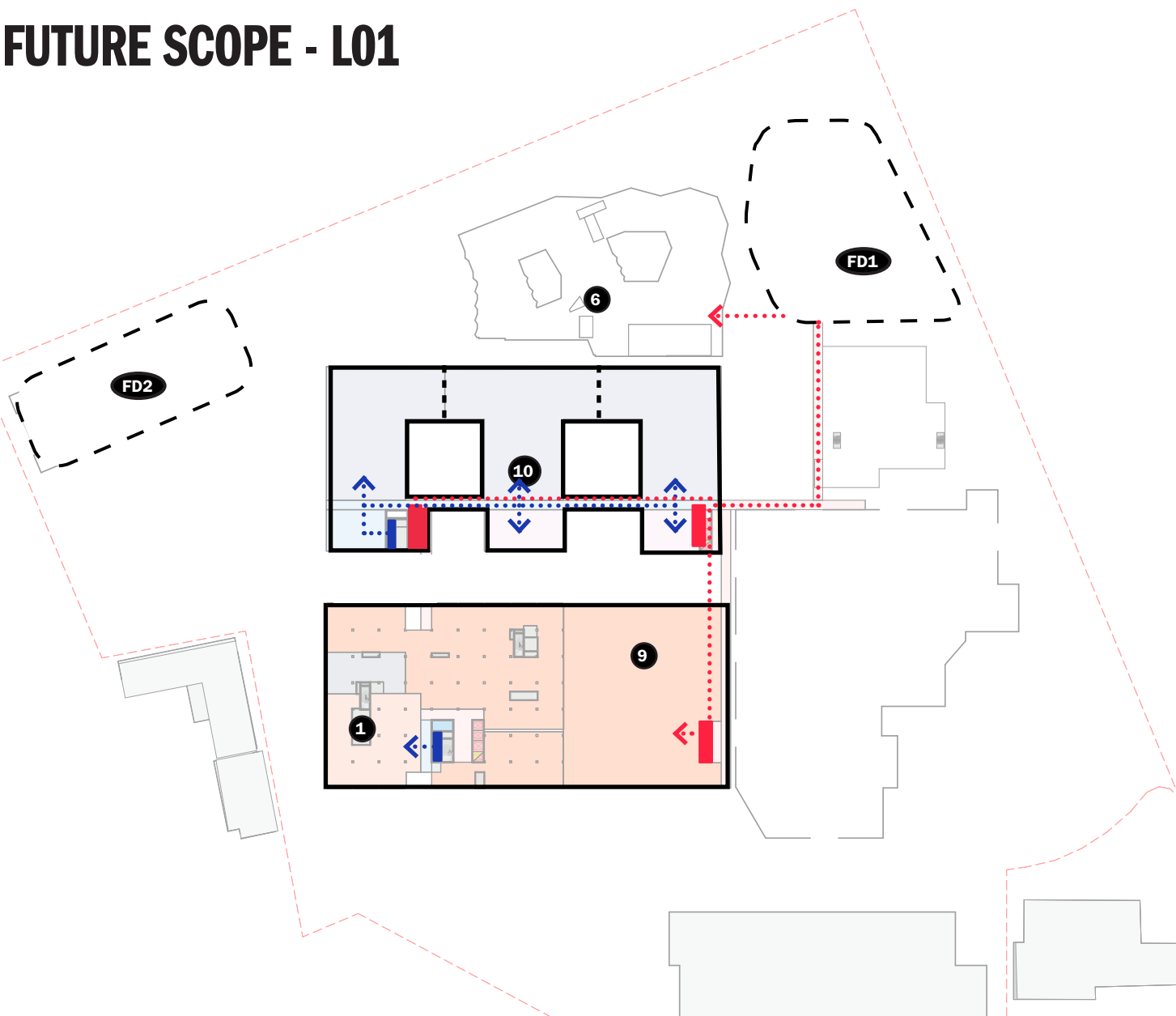
LEGEND

- R RESUS
- P PHARMACY
- T TRIAGE
- BOH BACK OF HOUSE
- EX EXISTING

- STAFF FLOW
- PUBLIC FLOW
- LOGISTICS FLOW
- STAFF LIFT CORE
- PUBLIC LIFT CORE
- LOGISTICS LIFT CORE

- 1 CSB
- 2 MEDICAL IMAGING
- 3 ED
- 4 PHARMACY, PATHOLOGY, MHAOD, STAFF AMENITIES

FUTURE SCOPE - L01

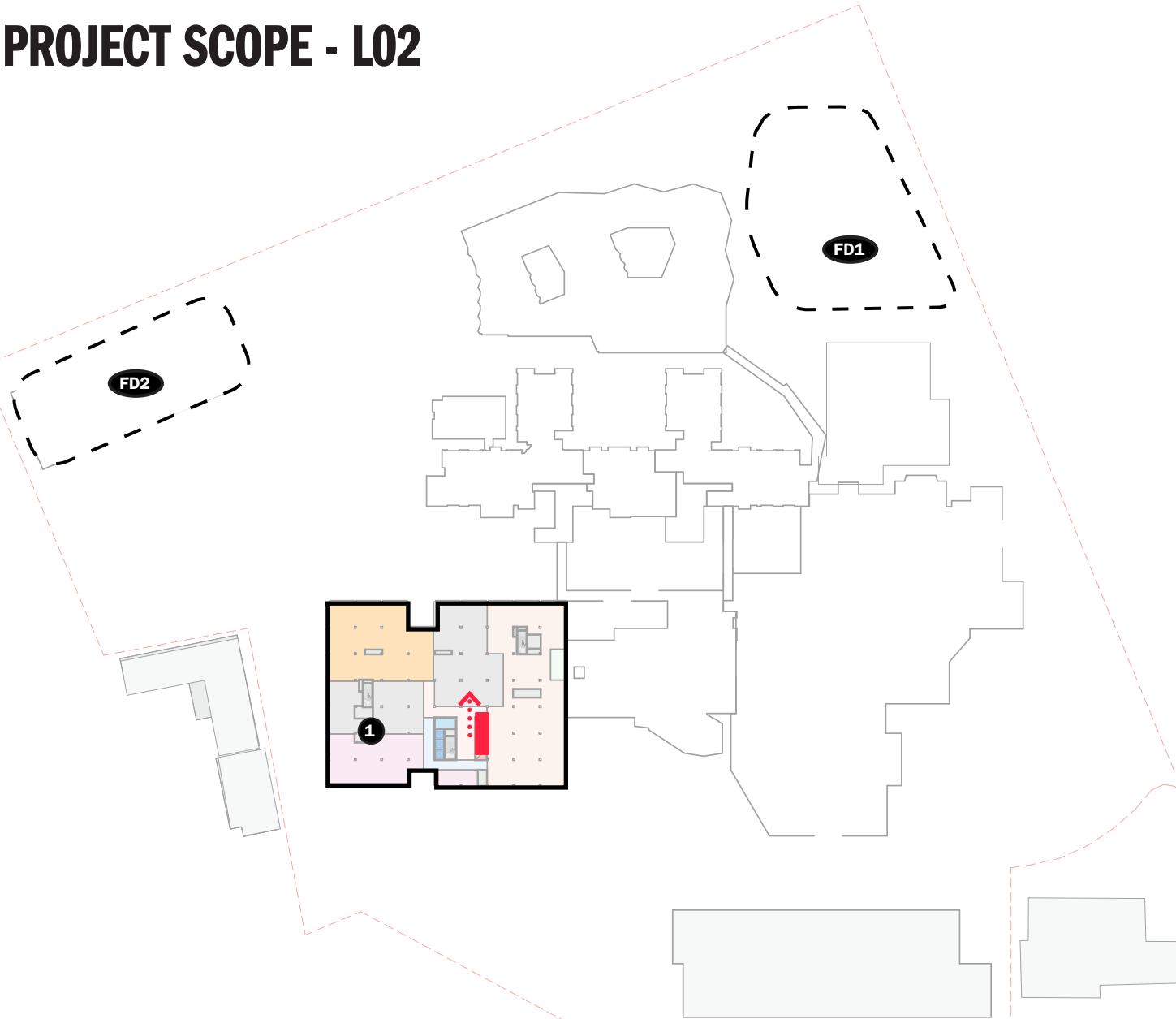


- 5 IPU
- 6 CANCER CENTRE (NOT IN SCOPE)
- 7 DROP-OFF
- 8 CARPARK
- 9 AWH'S FUTURE ACUTE SERVICES

- 10 AWH FUTURE SUB-ACUTE SERVICES/IPU
- 11 EARLY & ENABLING WORKS
- FD1 FUTURE DEVELOPMENT - E.G. PRIVATE HOSPITAL
- FD2 FUTURE DEVELOPMENT - E.G. MEDI HOTEL/STAFF

ZONAL MASTER PLAN

PROJECT SCOPE - L02



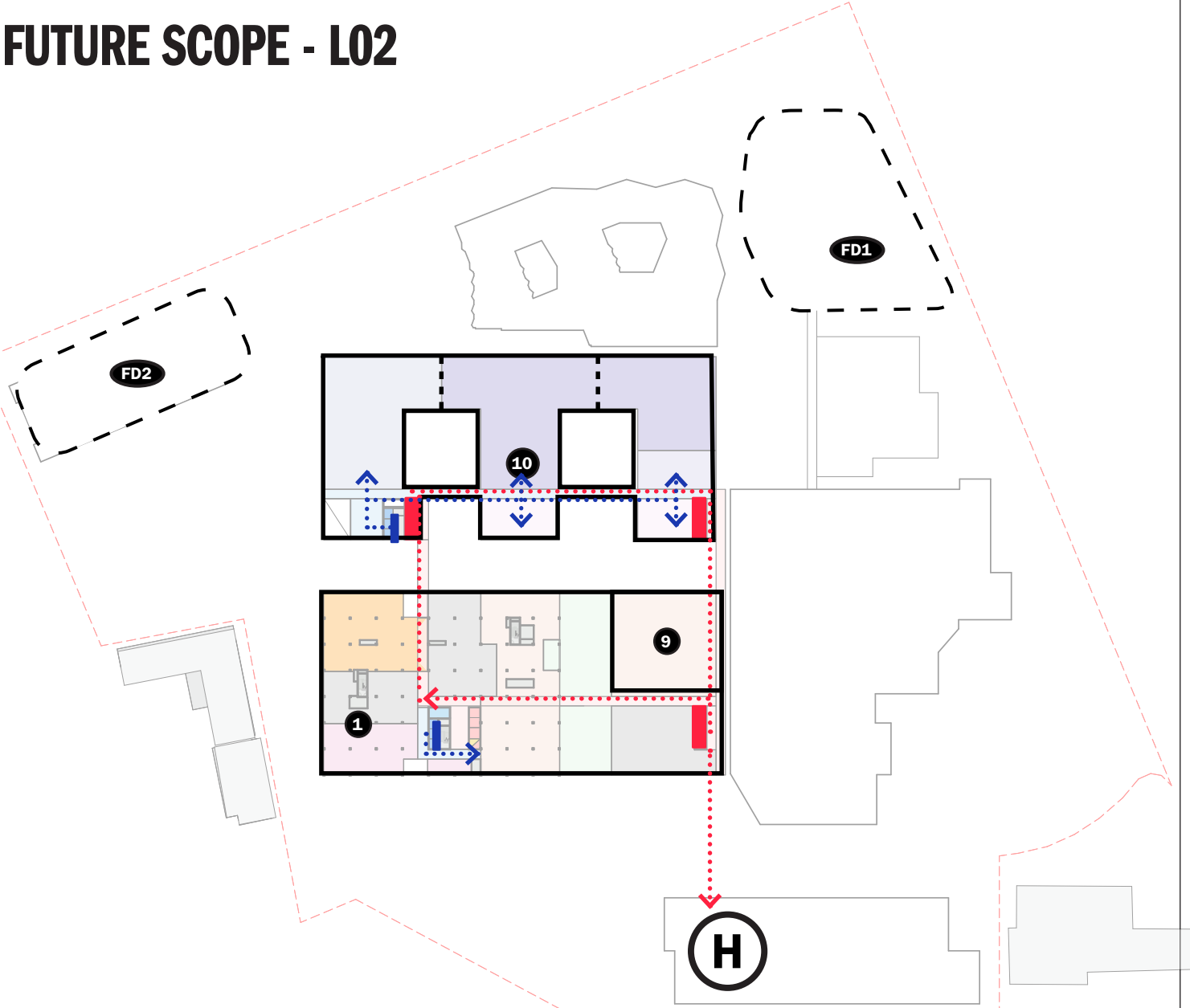
LEGEND

- R RESUS
- P PHARMACY
- T TRIAGE
- BOH BACK OF HOUSE
- EX EXISTING

- STAFF FLOW
- PUBLIC FLOW
- LOGISTICS FLOW
- STAFF LIFT CORE
- PUBLIC LIFT CORE
- LOGISTICS LIFT CORE

- 1 CSB
- 2 MEDICAL IMAGING
- 3 ED
- 4 PHARMACY, PATHOLOGY, MHAOD, STAFF AMENITIES

FUTURE SCOPE - L02








- 5 IPU
- 6 CANCER CENTRE (NOT IN SCOPE)
- 7 DROP-OFF
- 8 CARPARK
- 9 AWHs FUTURE ACUTE SERVICES

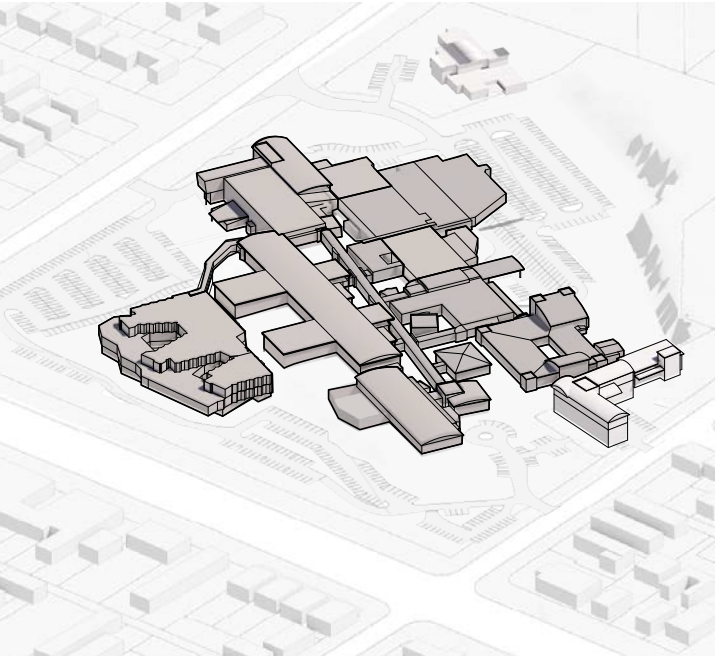
- 10 AWH FUTURE SUB-ACUTE SERVICES/IPU
- 11 EARLY & ENABLING WORKS
- FD1 FUTURE DEVELOPMENT - E.G. PRIVATE HOSPITAL
- FD2 FUTURE DEVELOPMENT - E.G. MEDI HOTEL/STAFF
- H FUTURE HELIPAD LOCATION

7.11

STAGING

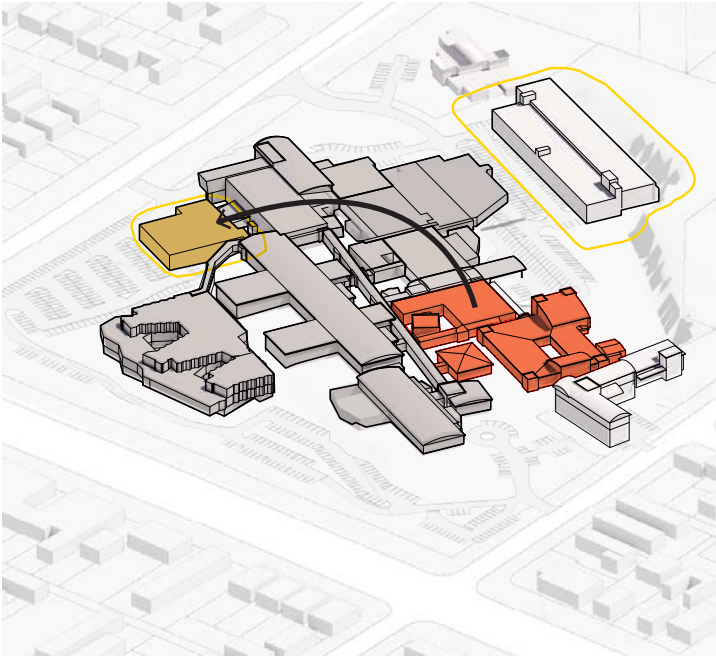
Project scope

LEGEND	
	Existing
	New building
	Early works
	Decant activities / site works*
	Refurbishment



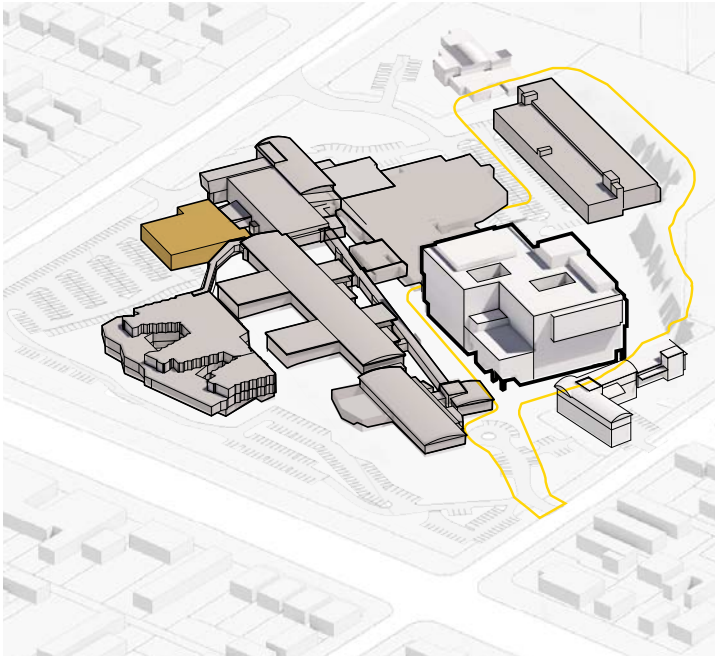
Early and enabling works

- Reticulation or re-routing of site services as required.
- Construction works associated with PABX and communications room
- Site preparation



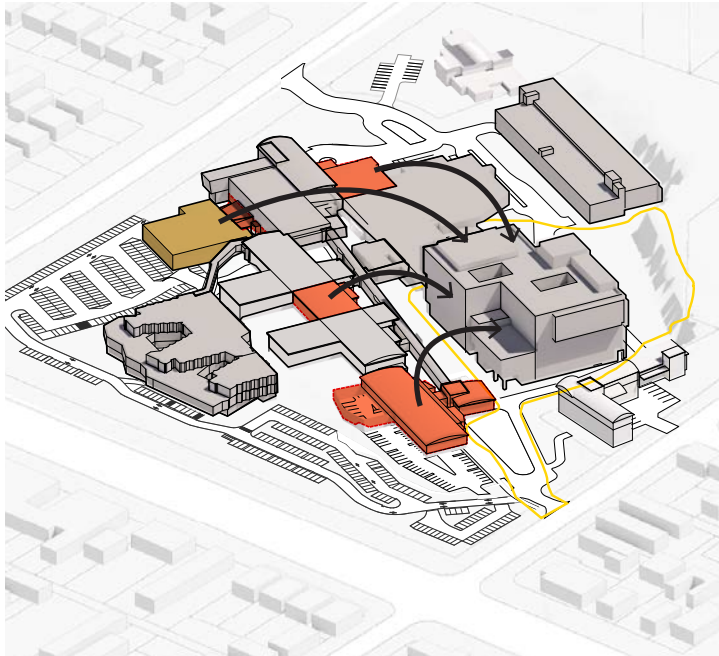
Relocation and parking

- Build Northeast building (previously called early works facility) in the North east corner
- Decant Pre-admissions unit, Pharmacy, Outpatients Department, ETR to northeast building.
- FOH access provided from existing main entry
- Permanent relocation of Breast Screen to an off-site community location.
- Build car parking (extent to be determined in next phase)



CSB main works construction

- Establish a proposed construction staging zone to the south of the development zone.
- Maintain public access to the ED entry and consider temporarily relocating short-term ED car parking to the East of ED if necessary.
- Demolish existing Allied Health and (part) FOH building, keeping existing Medical Imaging functional and construct the new CSB.
- Construction consideration must be given to mitigating impacts to neighbouring buildings, in particular Hilltop, including:
 - Maintaining access to basement car park
 - Noise and debris impacts
 - Appropriate traffic management for patient transfer








Occupy CSB

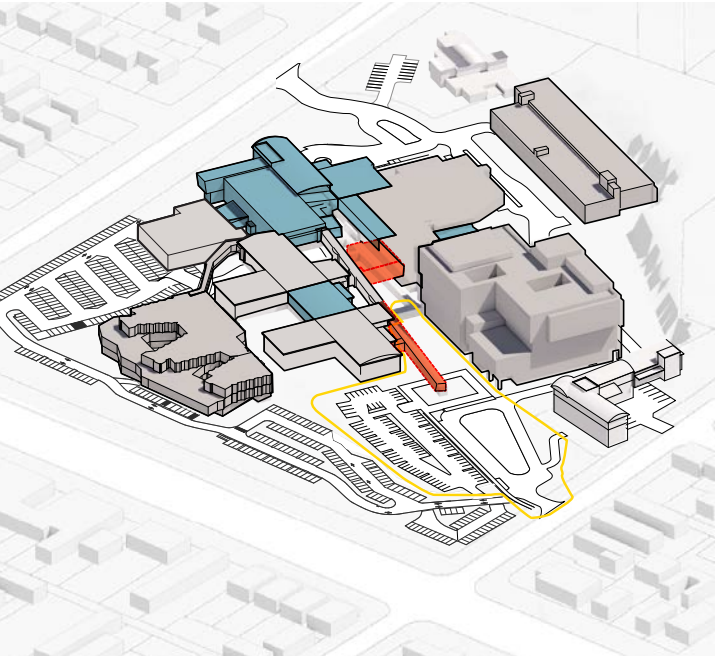
- Decant Ambulatory and Allied Health and associated services from the north east facility.
- Decant Admin from Building 01 (B01).
- Decant MHU/Nolan house.
- Decant Paediatrics.
- Decant ICU/CCU
- Decant Theatres and CSSD
- Decant Maternity, Birthing SCN from Wodonga.

*Site works zone shown indicatively - to be developed in next phase

STAGING

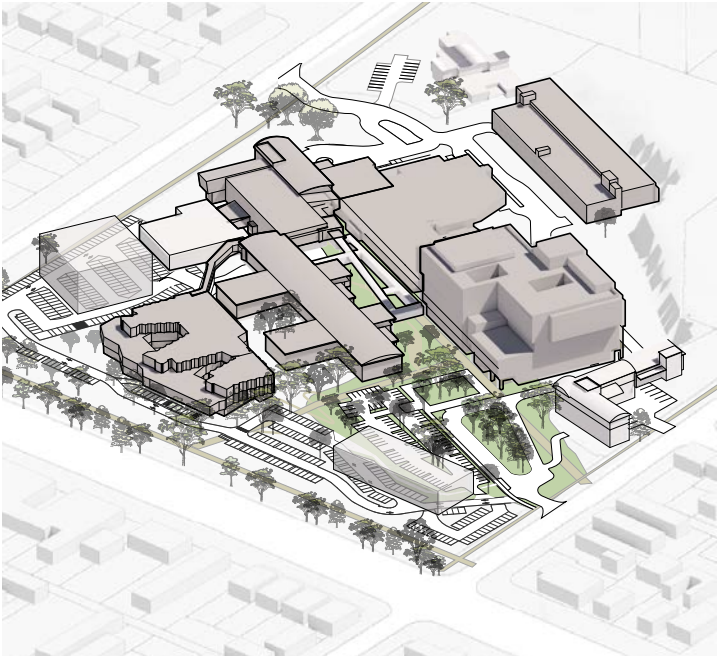
LEGEND	
	Existing
	New building
	Early works
	Decant activities / site works*
	Refurbishment

Project scope



Refurbishment Works

- Demolish existing Nolan house and part demolish the existing central corridor
- Part retain the central existing corridor connecting with the CSB with a new link across the courtyard
- Staged demolition allows for the construction of new pedestrian connection and canopy to CSB.
- Retain existing BOH (Back of house) with extension of external waste area
- Pharmacy and Pathology departments (relocated from decanted space in Northeast building) to be provided within the existing theatre/CSSD
- Emergency Department 14 Bay refurb including MHAOD unit.
- Paediatrics area to become available for existing IPU additional beds.
- Expand the Medical Imaging department, and establish the secured connection for patient transfer from ED to the new CSB.



Landscape

- Northeast Building to be used for future AWHs services
- Develop forecourt and drop-off areas.
- Carry out landscape works and ring road to the south of the CSB connecting East street and Keene street.
- By following this masterplan sequencing, the project aims to ensure operational continuity, effective decanting, and orderly construction and refurbishment of various facilities. The sequencing plan provides a roadmap for the successful implementation of the project while minimizing disruptions to ongoing operations. Additional sub-stages of the masterplan sequencing outlined herein are anticipated, to be confirmed in conjunction with contractor during the delivery phase of the project.

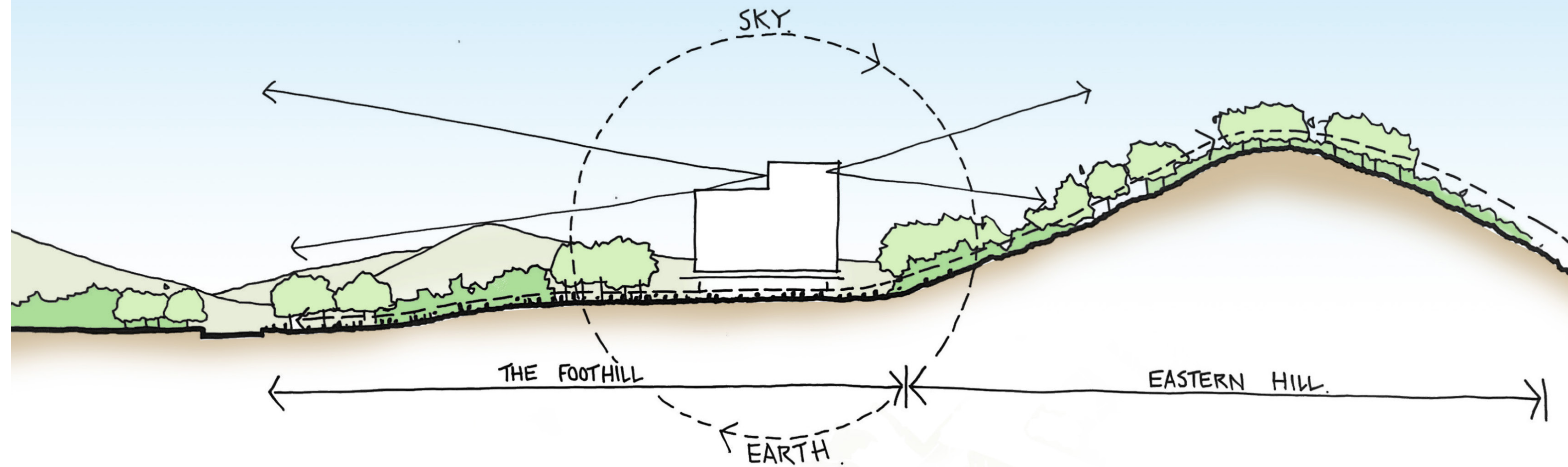
*Site works zone shown indicatively - to be developed in next phase

SECTION 8

ARCHITECTURAL

DESIGN

A place for well-being, connected to land and sky



A HILLTOP SETTING

The architectural vision of the Albury Wodonga Regional Hospital Project is grounded in an understanding and appreciation of Albury's distinctive topography, the views to surrounding mountains, and the deep connection its people hold with nature.

The character of the city of Albury is defined by its distinctive topography. This typography informs how the city is organised and arranged. In places, the change in levels offers glimpses to the surrounding mountains, at other times clear, breathtaking views. The surrounding mountains are points of orientation, sites of deep cultural meaning, and backdrops to daily lives. Extensive discussions with Traditional Owners have underscored the importance of surrounding sites with deep cultural significance.

As the images show on the following pages, the physical framework of the building is informed by sight lines to surrounding sites of significance. This approach is multi-layered, with glimpses to landscape offered at the end of corridors to orient, internal courtyards open to sky or a sequence of external courtyards that truly invite people to pause and connect with these distant views.



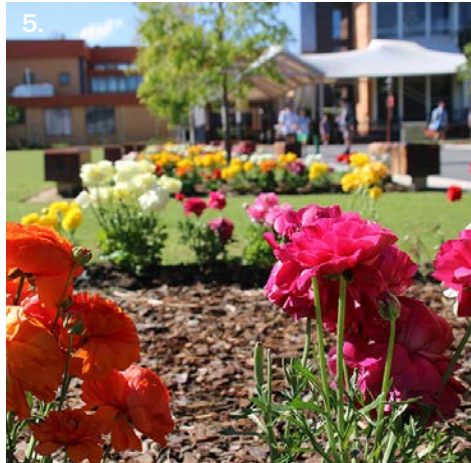
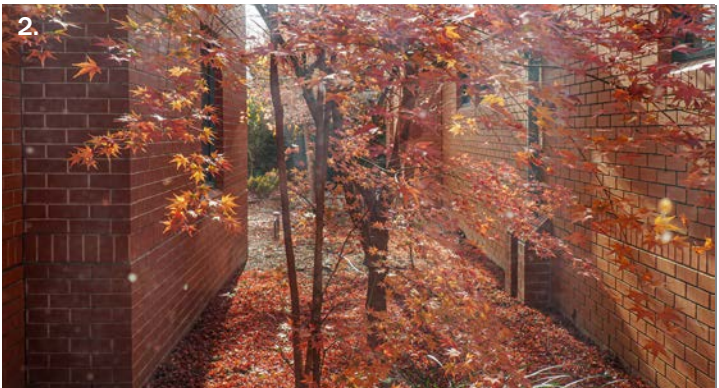
CURATED GARDENS

The gardens in and around Albury are not just left over patches of greenery; they are meticulously cared for and thoughtfully curated spaces that hold significant cultural value for both the public gathering and individuals seeking private moments of solace and joy. These gardens are intricately woven into the fabric of Albury's identity, serving as essential elements that enrich the overall experience of the city.

The current hospital reflects this character. Much like Albury itself, the hospital's design is intricately intertwined with a network of open gardens that play a pivotal role in shaping the functionality and atmosphere of the facility. These gardens serve a multitude purposes; they are therapeutic spaces, casual lunch spots, and peaceful retreats where patients and staff seek connection to nature.

Throughout the project, we've embraced this access to gardens, integrating them into the architectural framework. Drawing inspiration from Country and First Nations perspectives, these spaces will be meaningful, serving as artistic expressions of the region's cultural richness. Beyond simple gardens, they are strategically integrated into health planning, serving as pivotal components in enhancing patient care and fostering staff well-being.

- 1. Albury Hospital
Existing courtyard space
- 2. Albury Hospital
Existing central corridor adjacent courtyards
- 3. Albury Botanic Gardens
Community flower display
- 4. Albury Hospital
Existing courtyard space
- 5. QE11 gardens
City square public gardens
- 6. Cancer Centre
Forecourt entry gardens



CONNECTED WITH COUNTRY

The positioning of this project, relative to First Nations Peoples perspective deepens our understanding of place to better inform our approach to the project.

'Sensing and caring for Country is something that transcends cultural differences and highlights the many values that are similar across the cultures of our contemporary communities' - Yerrabingin

Conversations with Wiradjuri community have led to three key design principles:

Well-being Journey

- The design integrates a landscape and nature experience, allowing patients and staff to walk through and immerse themselves in gardens. The planting, paving and seating are inspired by Wiradjuri narratives, including planting ecologies and story narratives.

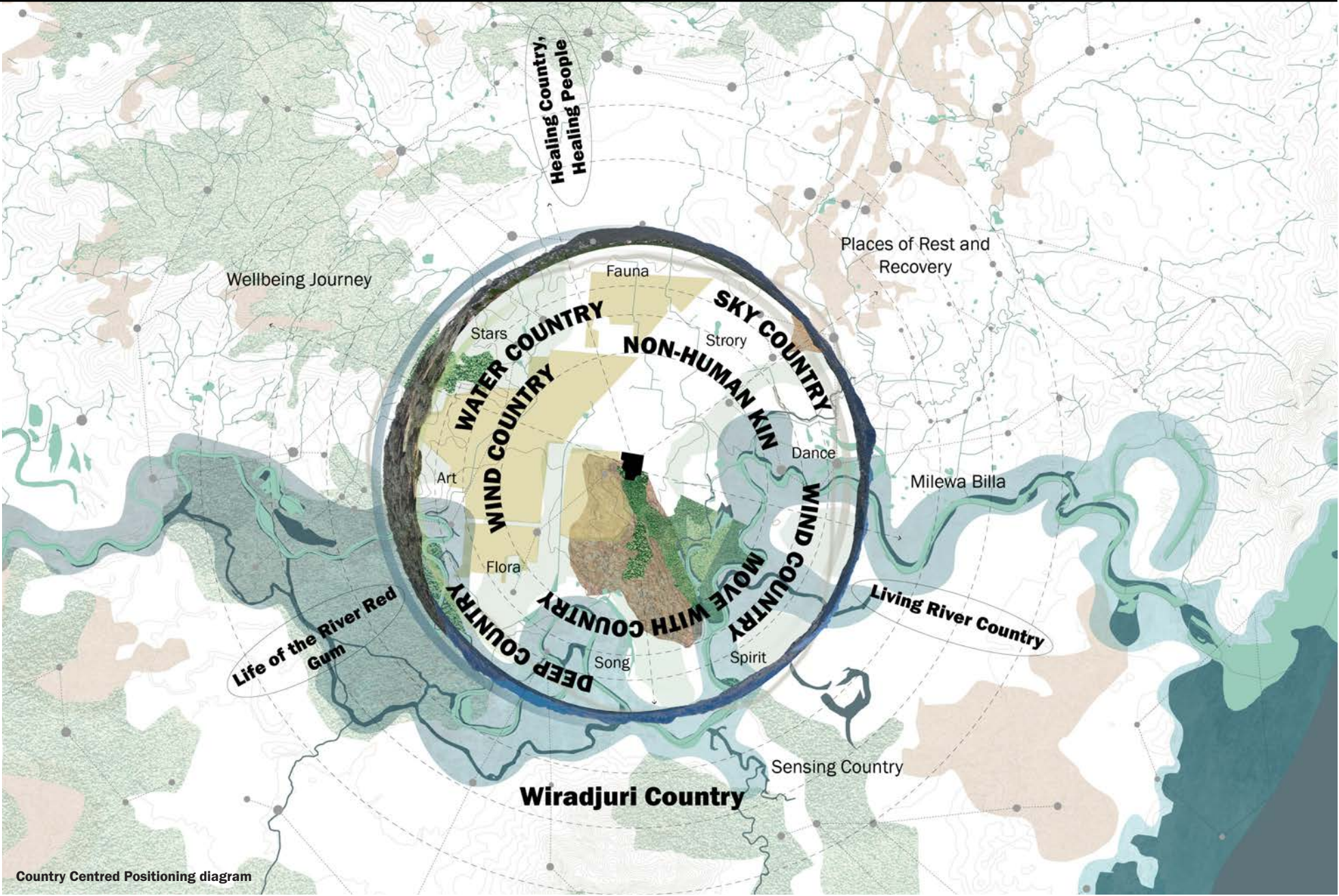
Places of Rest and Recovery

- Access to nature is fundamental to the design, with courtyards serving as areas for rest and external therapy, directly linked to clinical services.
- Outdoor gathering spaces support diverse cultural practices, promoting a holistic view of well-being. Inspired by Country, these spaces feel natural and non-intrusive, accommodating various gathering and cultural activities connected to therapy.
- The layout maximises exposure to nature for staff and patients, providing access to daylight and

views of the sky and surrounding nature, both near and distant.

Sensing Country

- Internal colour palettes and materials are inspired by the Albury landscape.
- Sight lines to the surroundings are integrated into space planning, with public corridors offering distant views to help orient and ground visitors.
- Various opportunities to connect with nature are provided, including short walks from bedrooms, exterior therapy sessions, and gatherings in the central garden.



A NEW CIVIC BUILDING

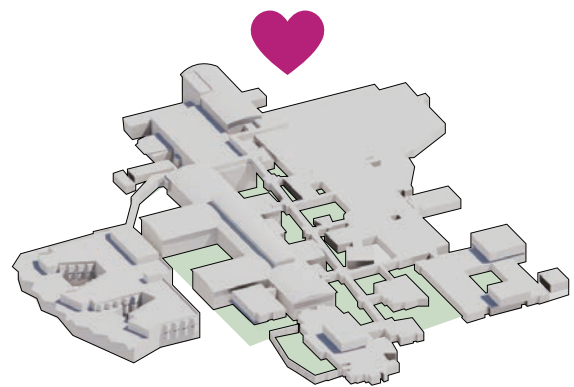
As Albury expands eastward, it's notable that many of the iconic public buildings, emblematic of the city's heritage and regional architecture, are concentrated west of the highway. This project aims to rectify this imbalance by introducing a hospital that not only serves as a symbol of community but also embodies civic qualities of resilience, permanence and openness towards the public realm.

The hospital will be an inherently civic structure - one that has weight, both in terms of physical presence and societal impact. The new hospital project in Albury is not just a medical facility; it is a civic landmark that embodies the city's values of community.

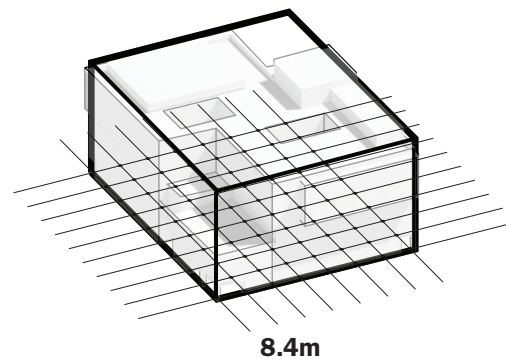


8.1

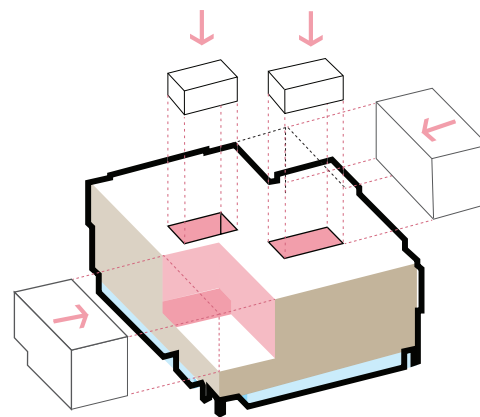
CONCEPTUAL FRAMEWORK



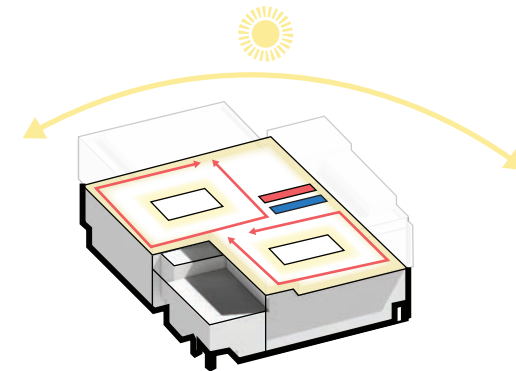
**Existing gardens and
courtyards**



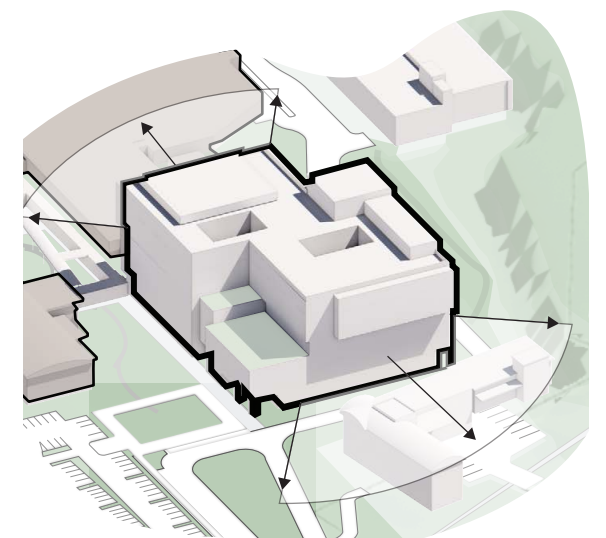
**Establish an 8.4m
structural grid that
supports expansion**



**Form and massing that
integrates courtyards and
daylight**



**Floor plate design
driven by staff and
patient outcomes**



**Physical and visual
connection to nature and
courtyards**

CLINICAL SERVICES BUILDING



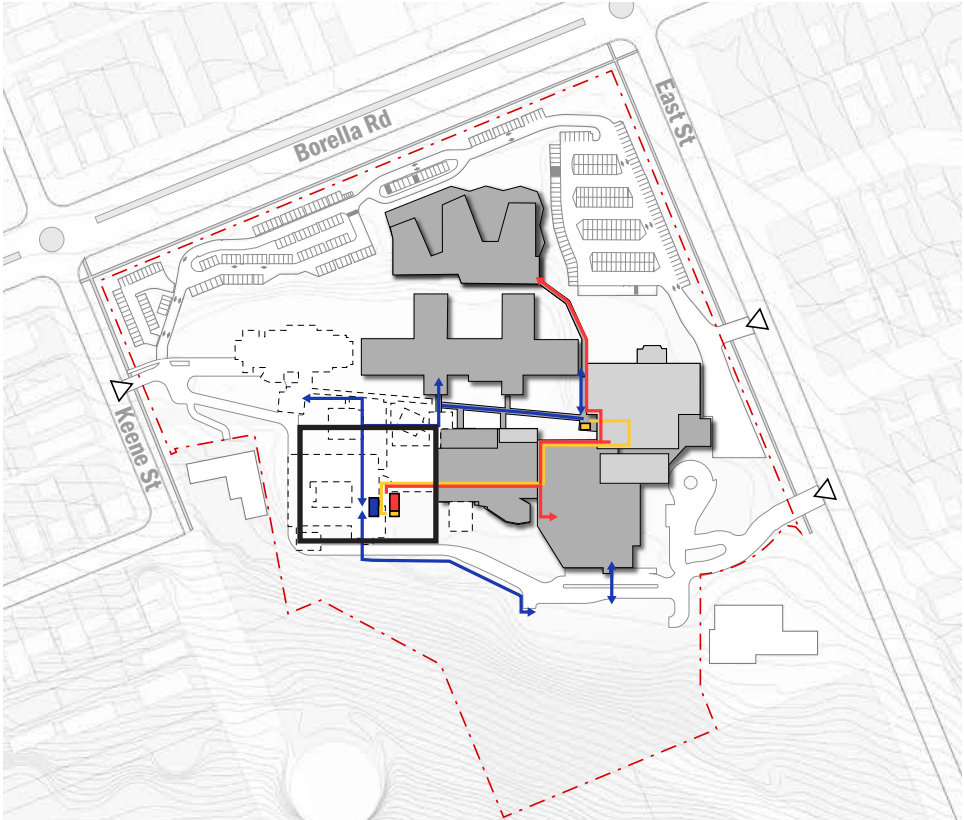
CLINICAL SERVICES BUILDING



8.2

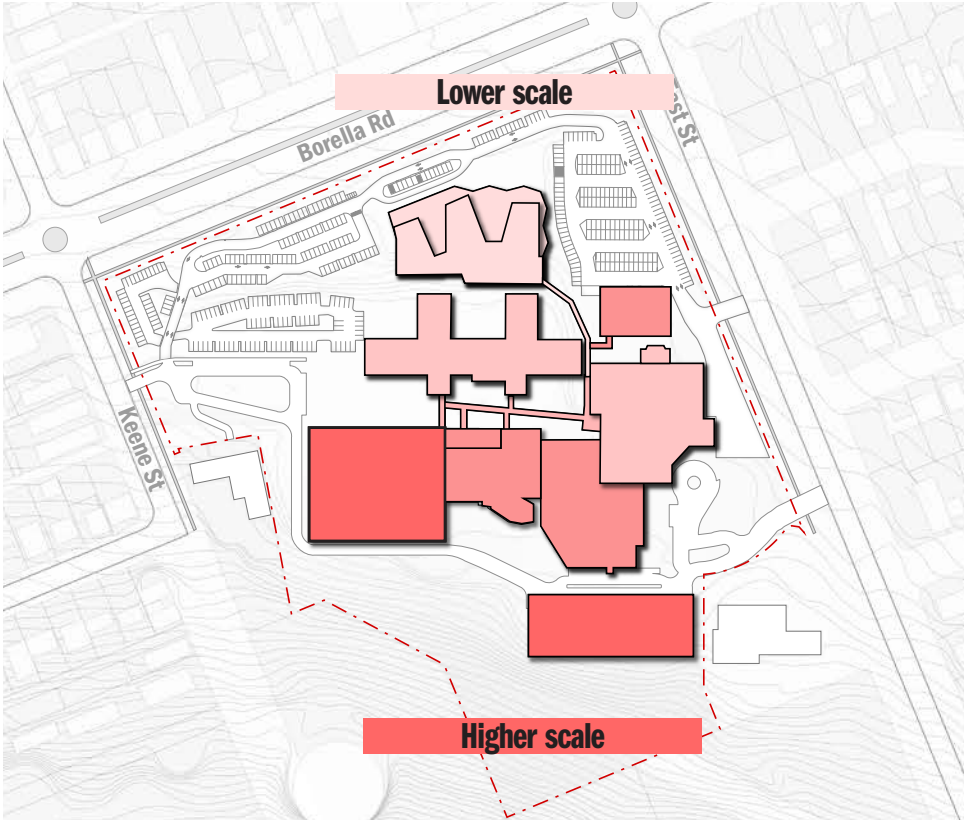
SITE SETTING

The location of new development is driven by the below key elements



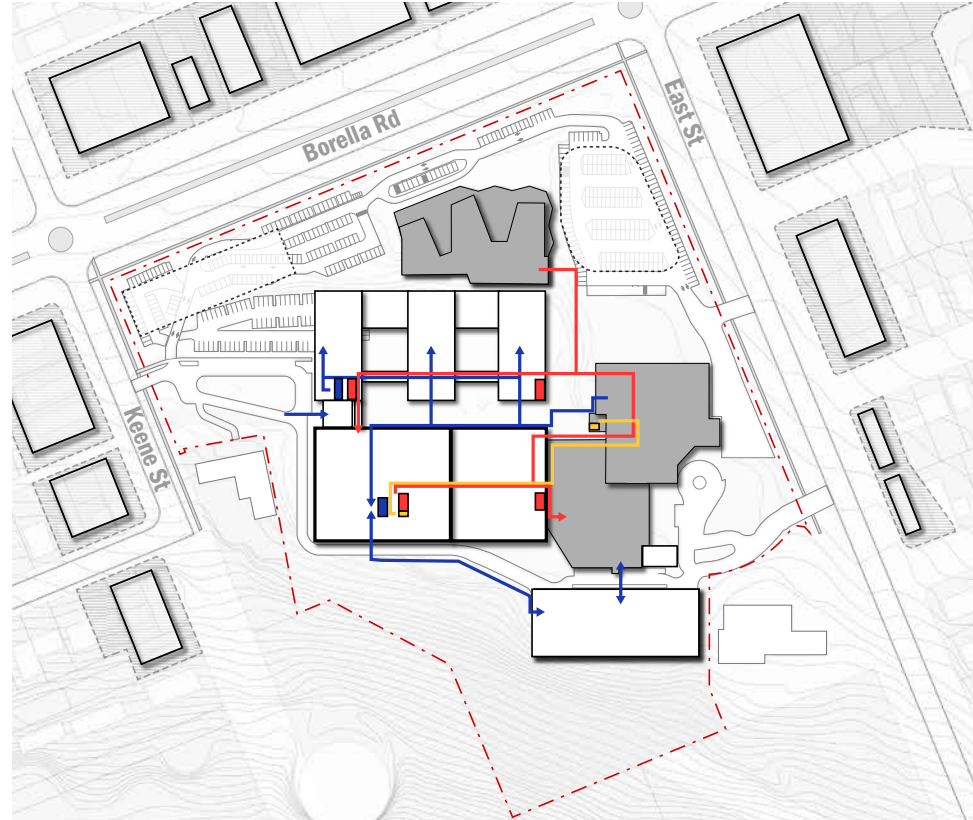
Clinical connections to retained building

- The CSB is positioned to enable clinical connections to the retained facilities, in particular the recently refurbished Emergency Department
- This maintains, and improves, the overall function of the hospital



Appropriate and contextual site massing

- The CSB is placed at the foot hill of the Eastern Hill Reserve, to protect site lines to the landscape beyond the site
- Bulk and height is positioned to the rear of the site to avoid overwhelming the relatively low rise street scape along Borella Road



Maintain expansion opportunities

- There will be future expansion and development on-site
- The CSB is placed to the south east to enable an appropriate legacy for this potential expansion
- This is in part driven by an approach to staging that allows a staged decant and replacement of existing IPU facilities in a way that continues functionality of the hospital. Refer to Chapter 5 for further information on staging

8.3 ACCESS

Public Access

- Existing main entry is via East Street – the same access road is used for both ambulance entry and public.
- Primary public entry is available on the Western side of the site via Keene Street.
- Improved cross-campus connection with the inclusion of the new link road.

Staff Access

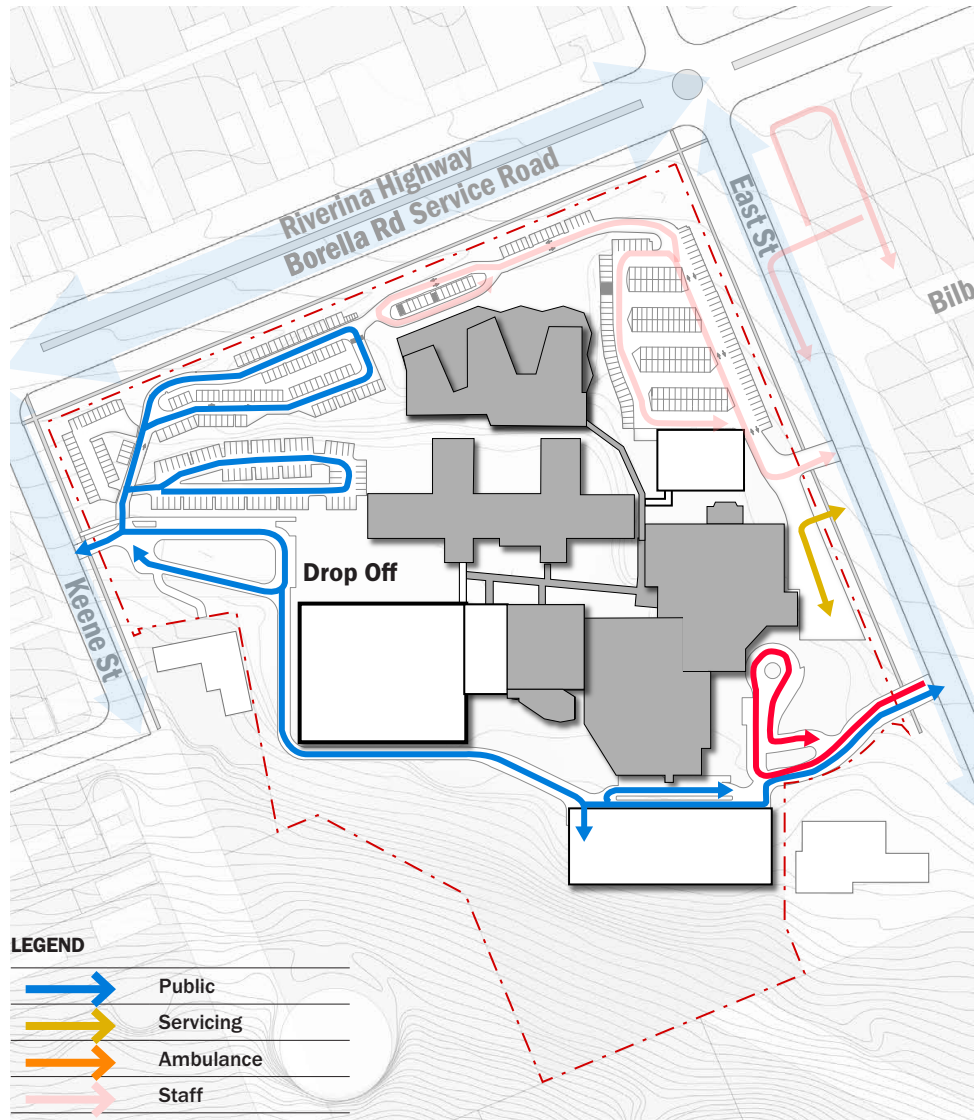
- Staff access the site via staff car park at the Northeast of the site, with entry from East Street. The car park is signposted for staff as staff only parking, this access does not prevent members of the public accessing the carpark and circulating through to the AWRCC.
- Staff also park in a controlled car park on the opposite side of the road on the corner of Borella Road and East Street.
- Staff will be allocated carparking in the multi-storey car park.

Ambulance Access

- Emergency ambulance access is via East Street – entry shared with public.

Logistic Access

- The lower ground loading dock, mortuary vehicles, and bulk gas storage/supply are all accessed from East Street.



8.4 BUILDING ACCESS

Public Access

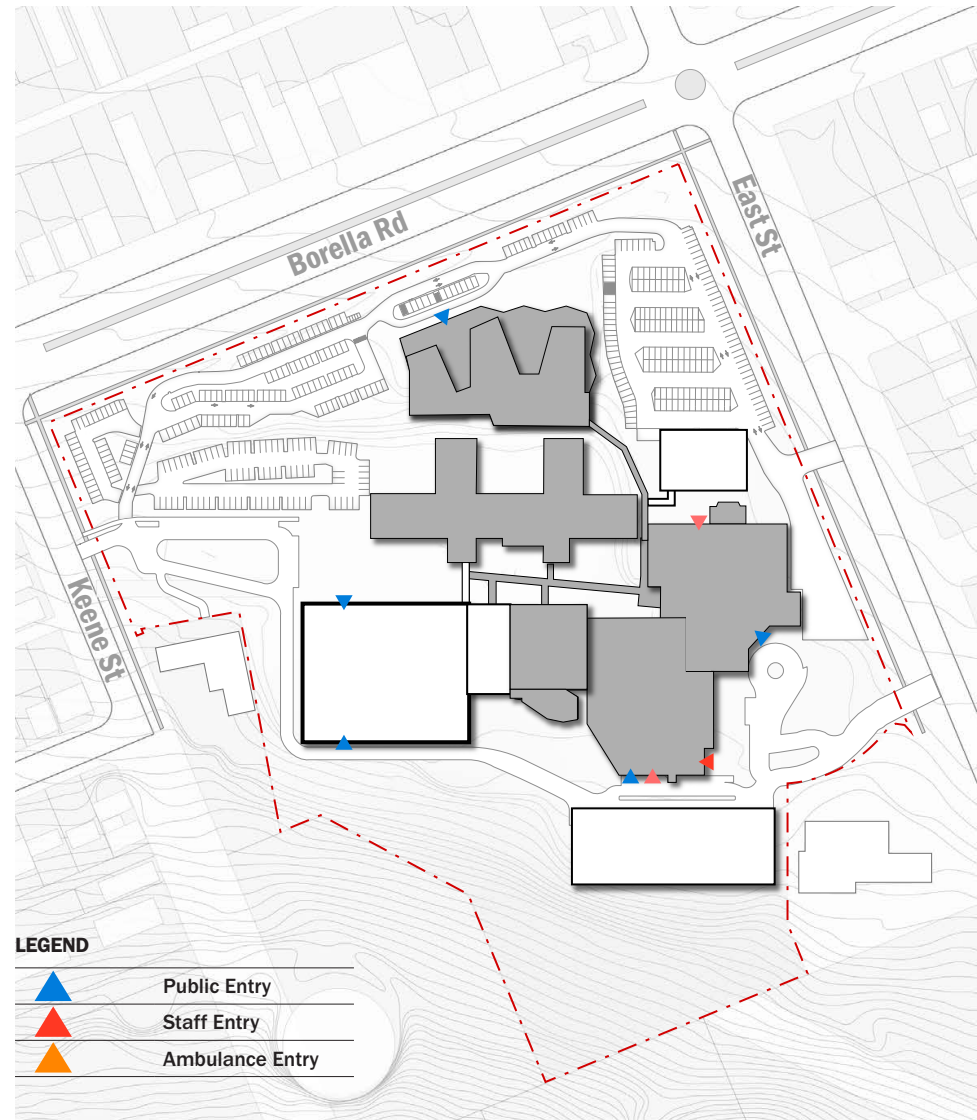
- Public access to the new main front door of the hospital is located near the public drop off (to the north of the CSB).
- New emergency department public entry/triage to the South of new ED.
- Existing access to the Cancer Centre is maintained.
- Clear access to the South of the CSB.

Staff Access

- Staff access the site via staff car park at the Northeast of the site, through the Northeast building.
- Staff will also be able to enter via ED if transferring from the multi-storey carpark.

Ambulance Access

- An ambulance bay is located to the east of the new emergency department.



8.5 CAR PARKING

Additional car parking will be provided within the site in both on-grade and multi-storey car parking. The exact amount of car parking will be developed through further consultation and be confirmed prior to authority approval application and final Business Case.

The multi-storey car park (MSCP) will deliver the bulk of additional car parking. Car parks will be allocated to staff and public. We will develop the operational and wayfinding of this allocation over the next phase.

The multi-storey car park will be structurally engineered to be capable of carrying additional levels in future phases.

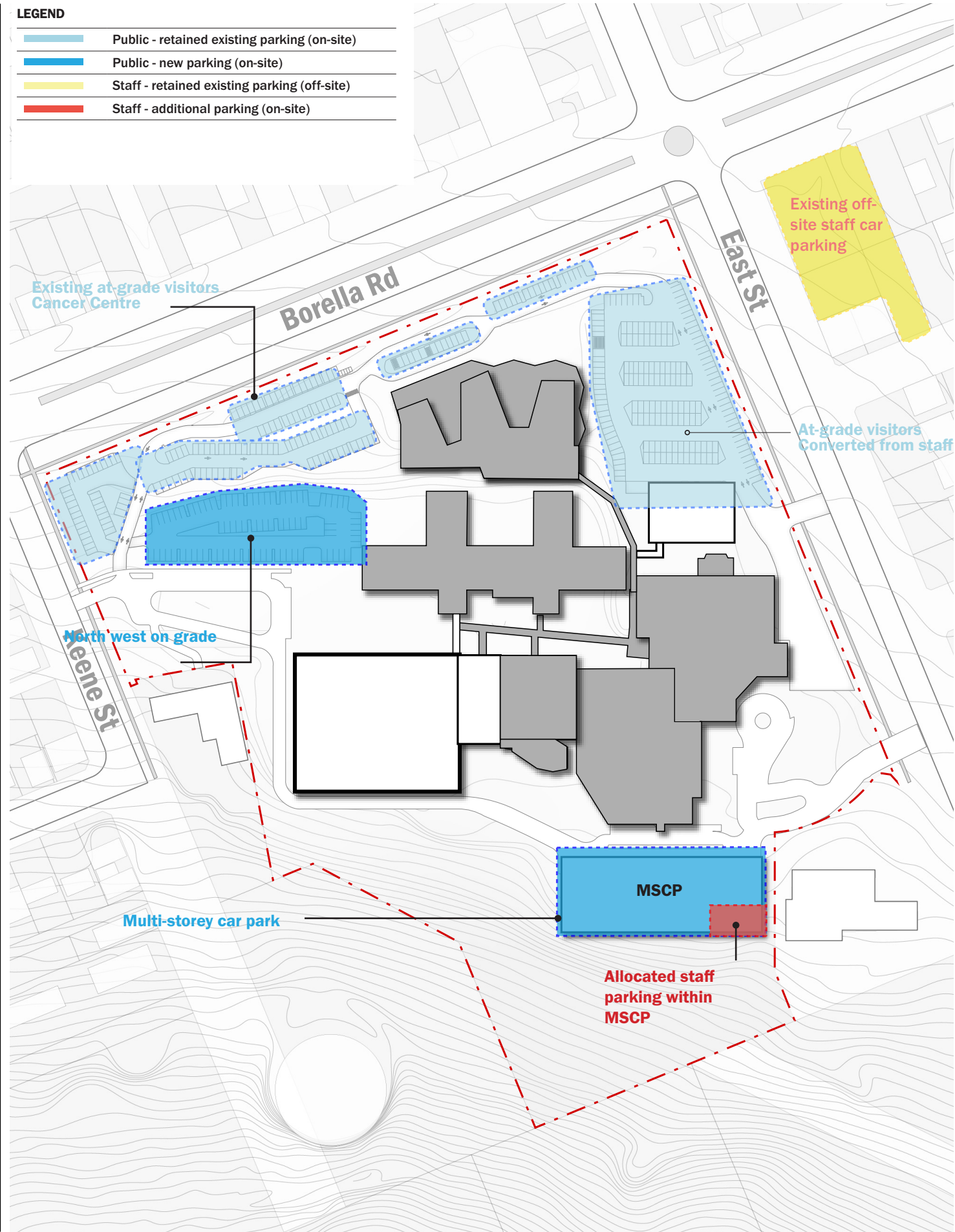
The car parking will be distributed as follows (excludes drop off parking):

Public

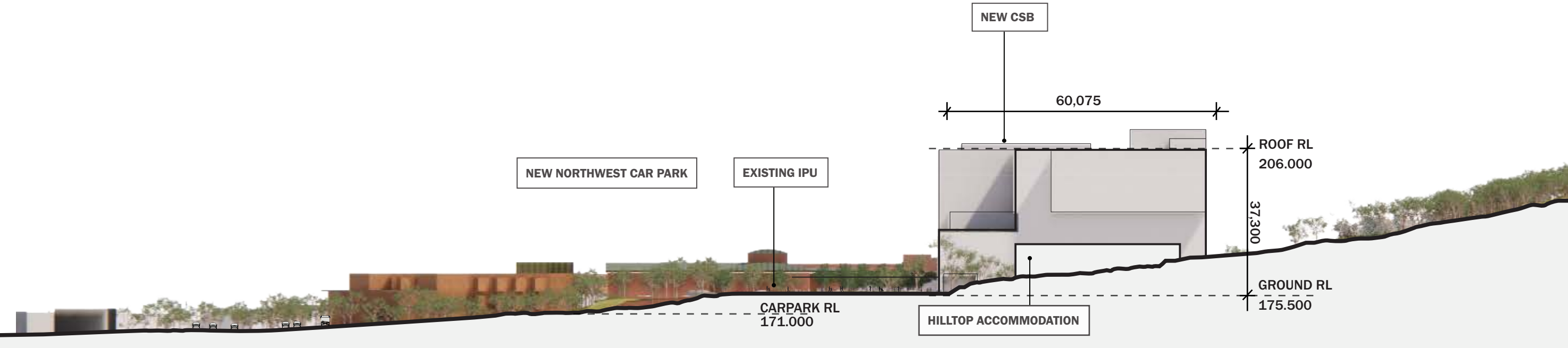
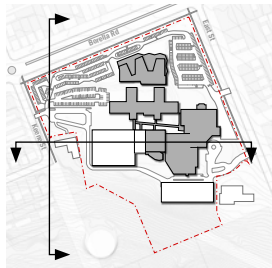
- Will be able to utilise the all on-grade site parking, including the Cancer Centre, as well the multi-storey car park

Staff

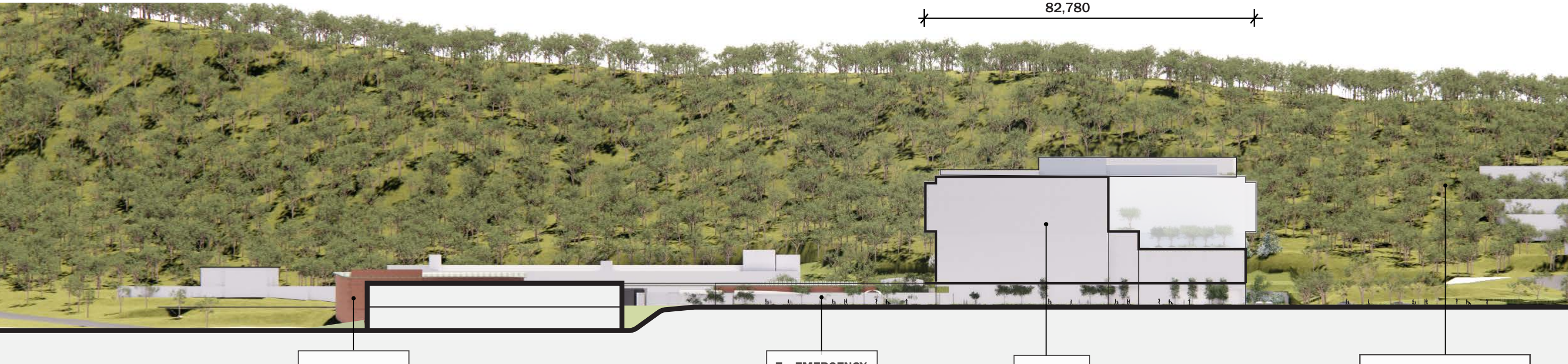
- Will utilise on street parking, the East Street parking area, and be allocated a portion of the MSCP. Access/secure strategy to be developed



8.6 BUILDING LEVELS

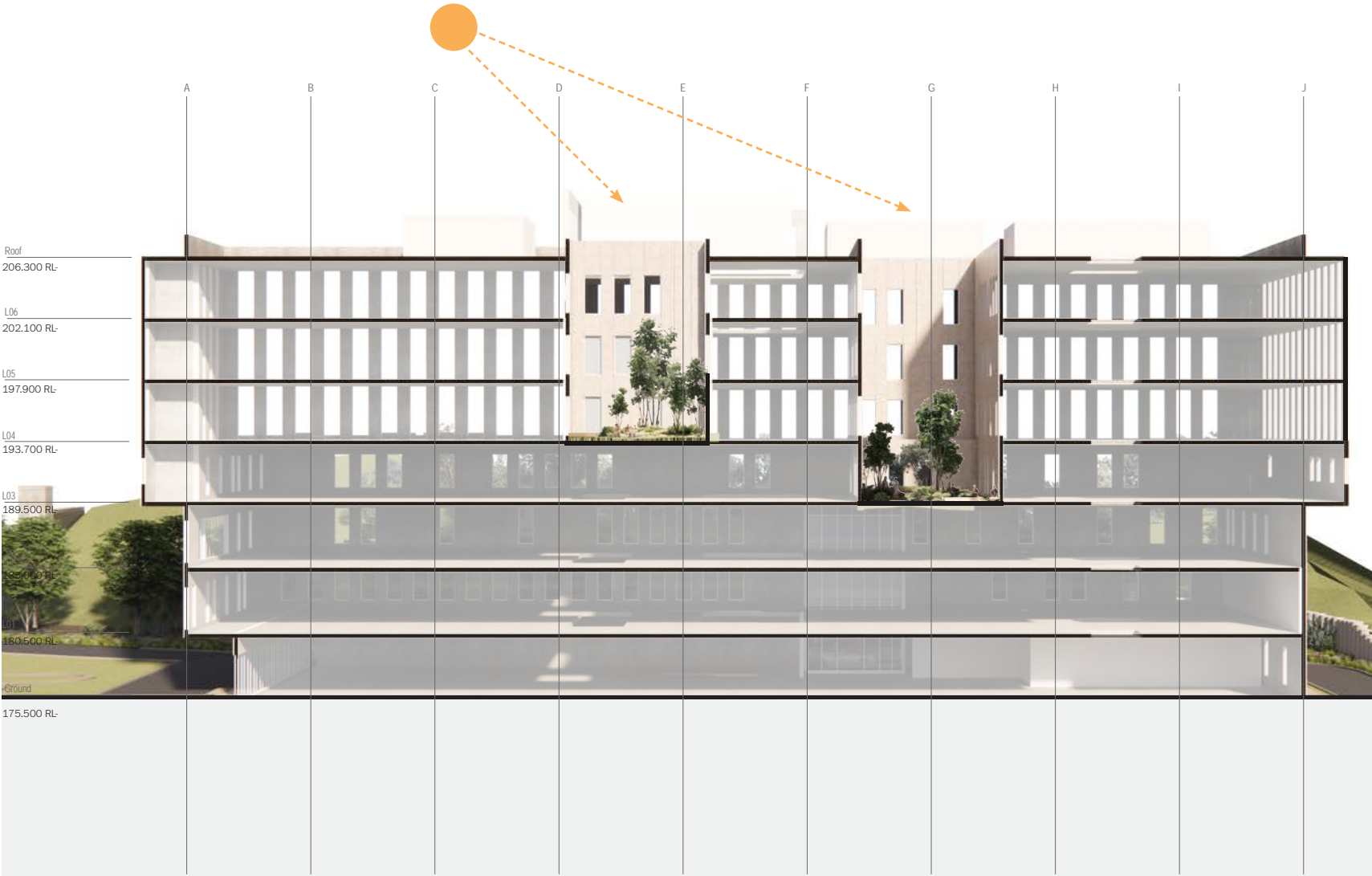
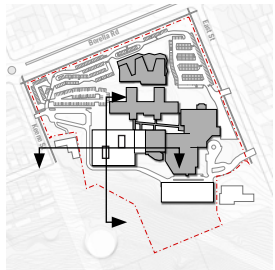


NORTH SOUTH SECTION

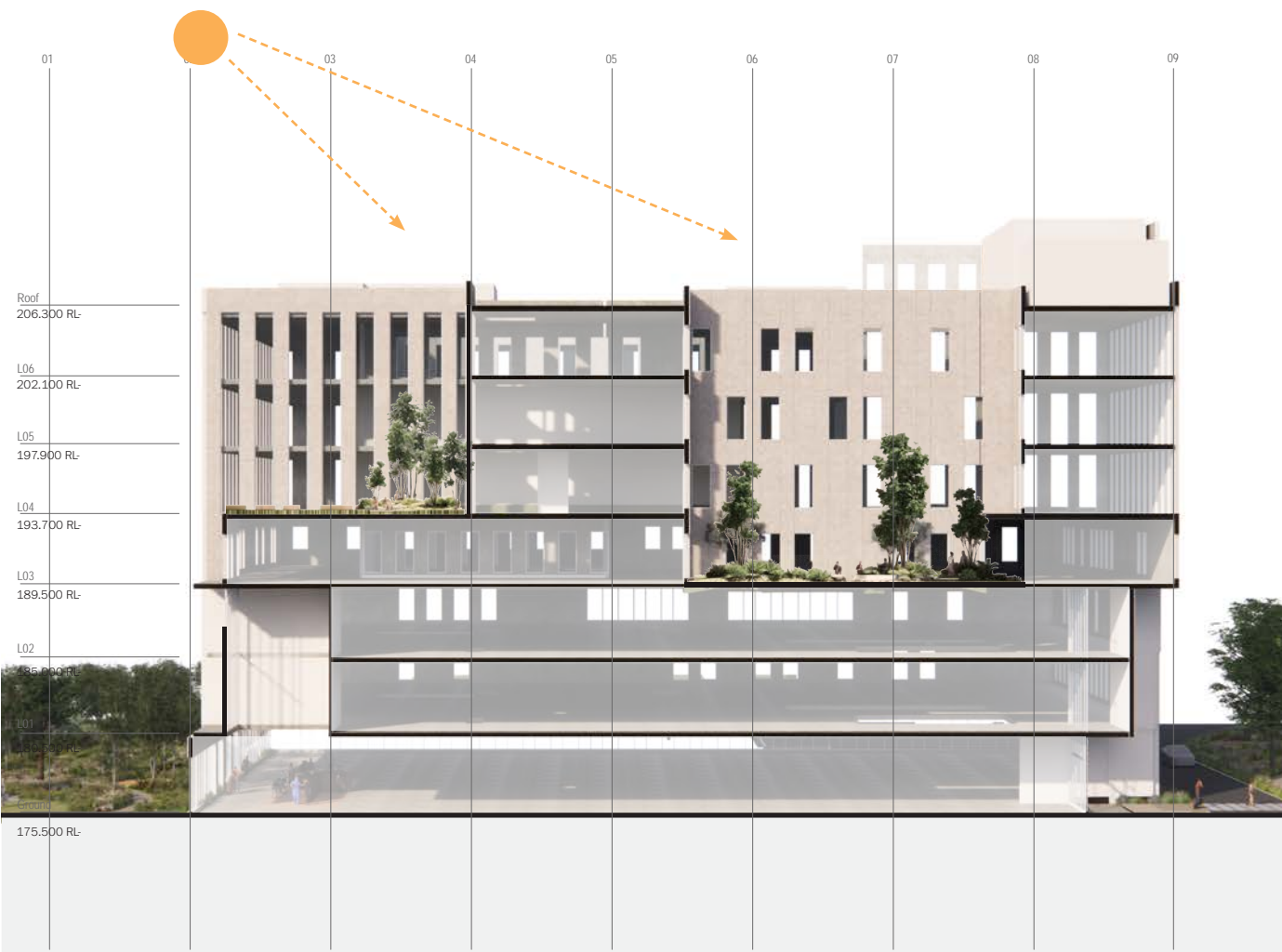


EAST WEST SECTION

BUILDING LEVELS



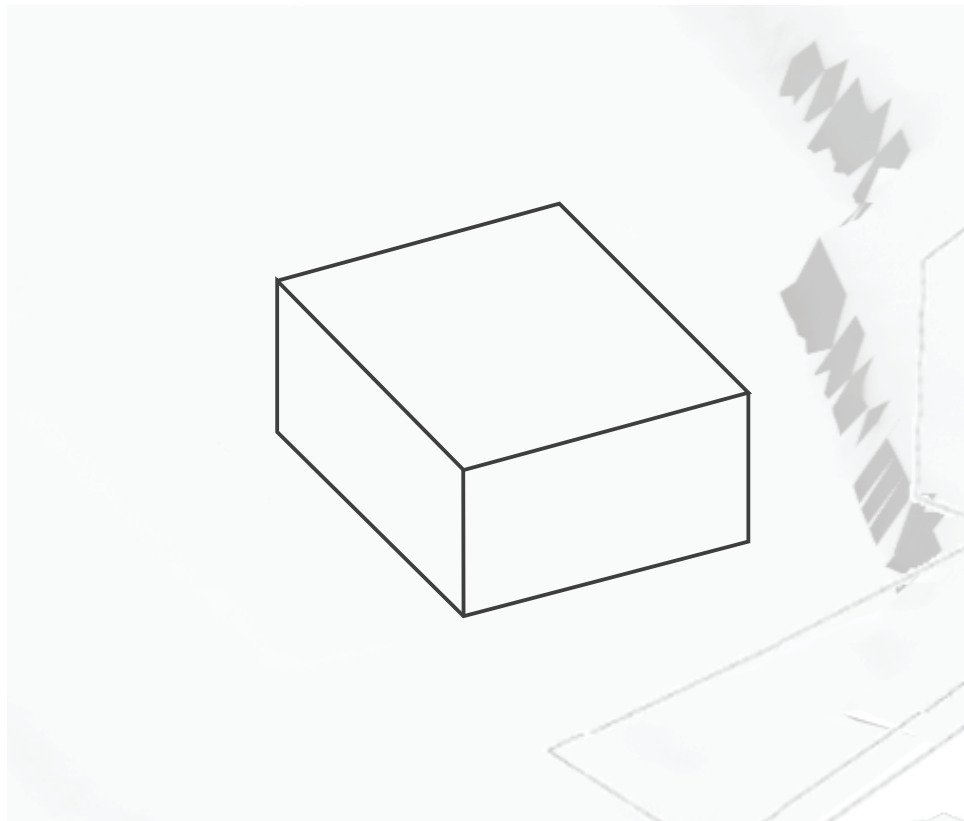
NORTH SOUTH SECTION



EAST WEST SECTION

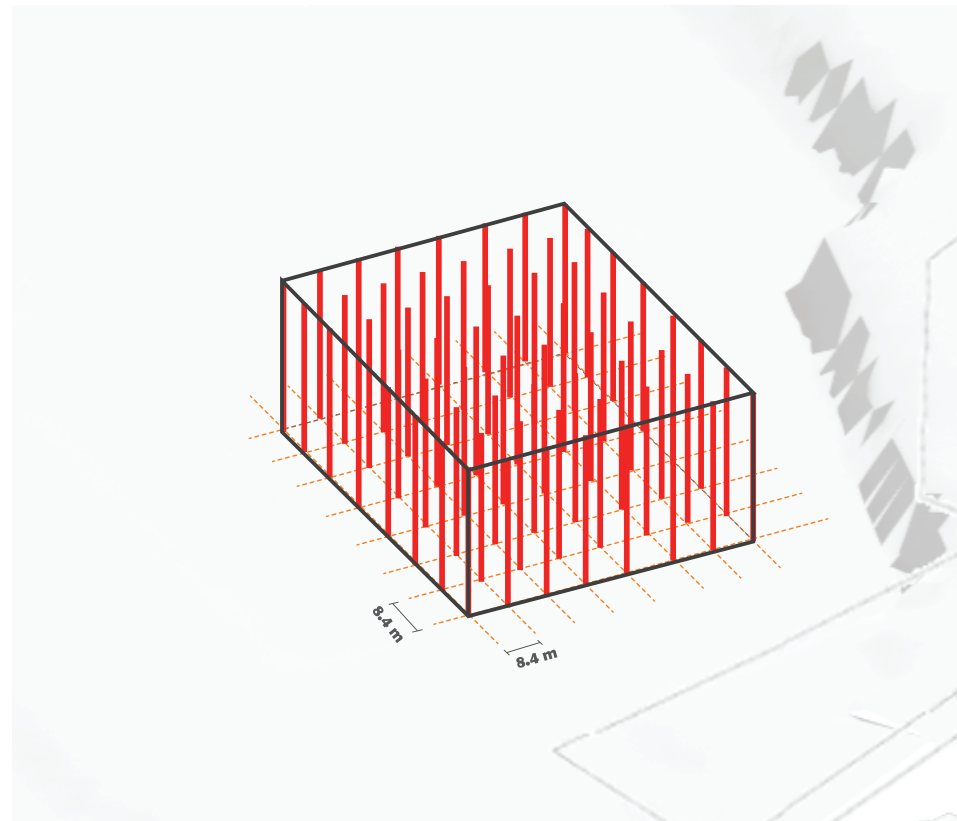
8.7

BUILDING ARTICULATION



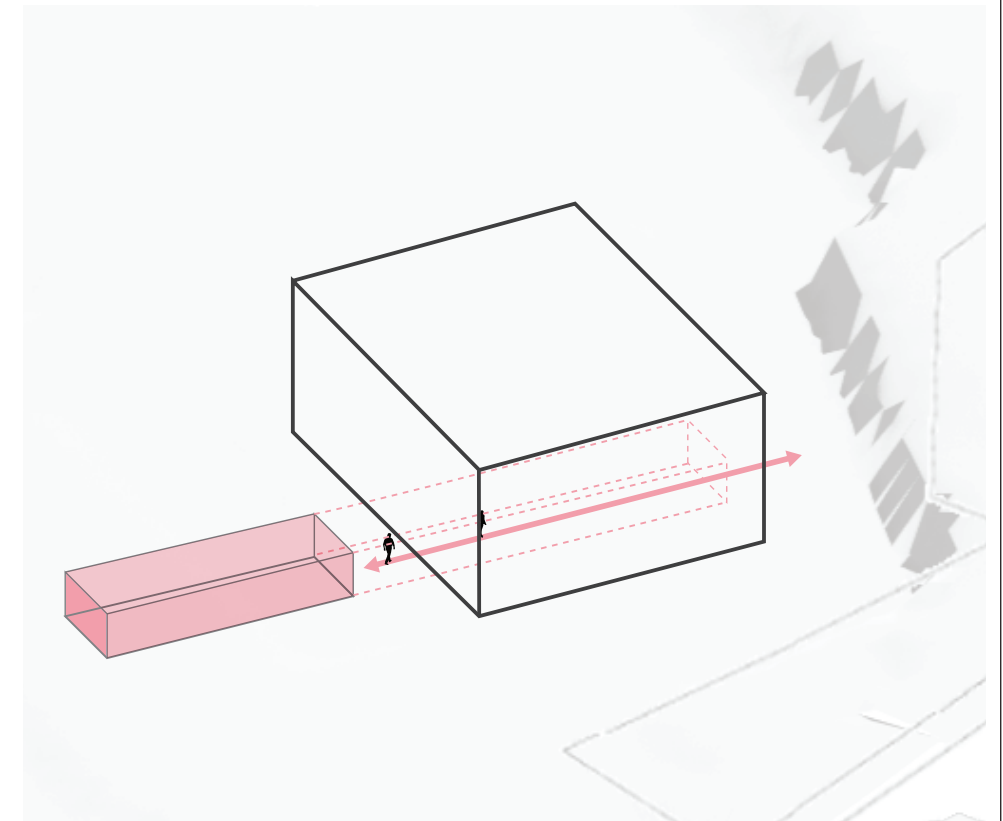
Base Block

→ A lasting and sustainable legacy.



Structural Grid

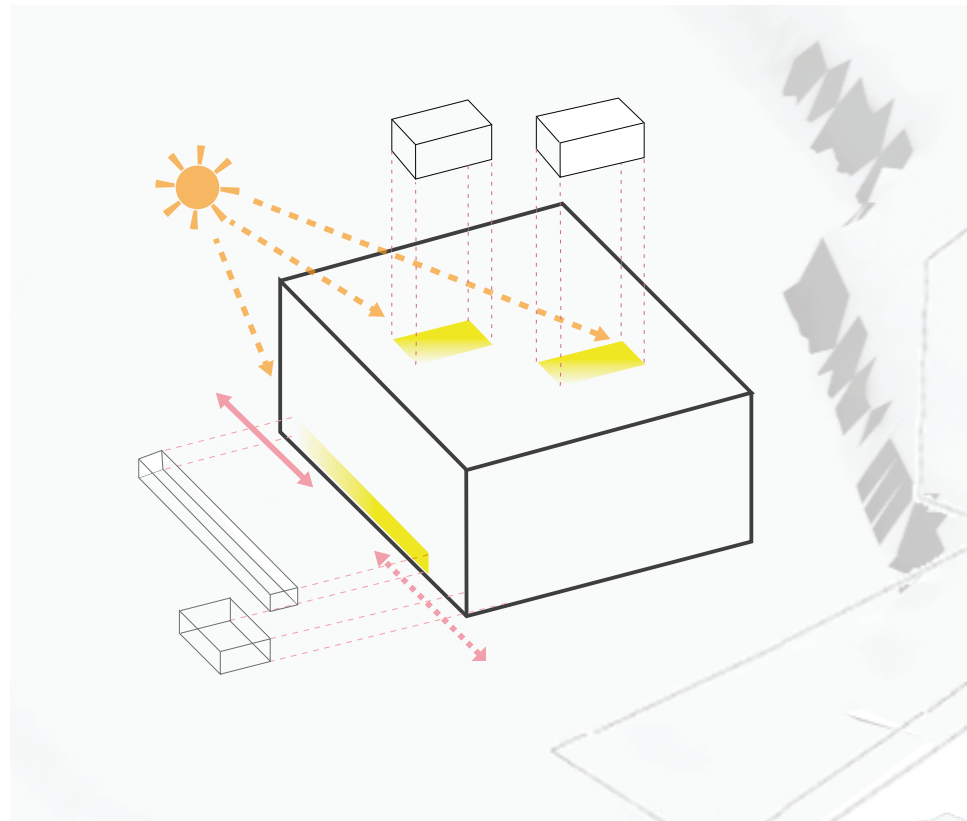
→ A regular 8.4m grid follows established clinical design principles, enabling seamless integration of future work phases.



Central Street

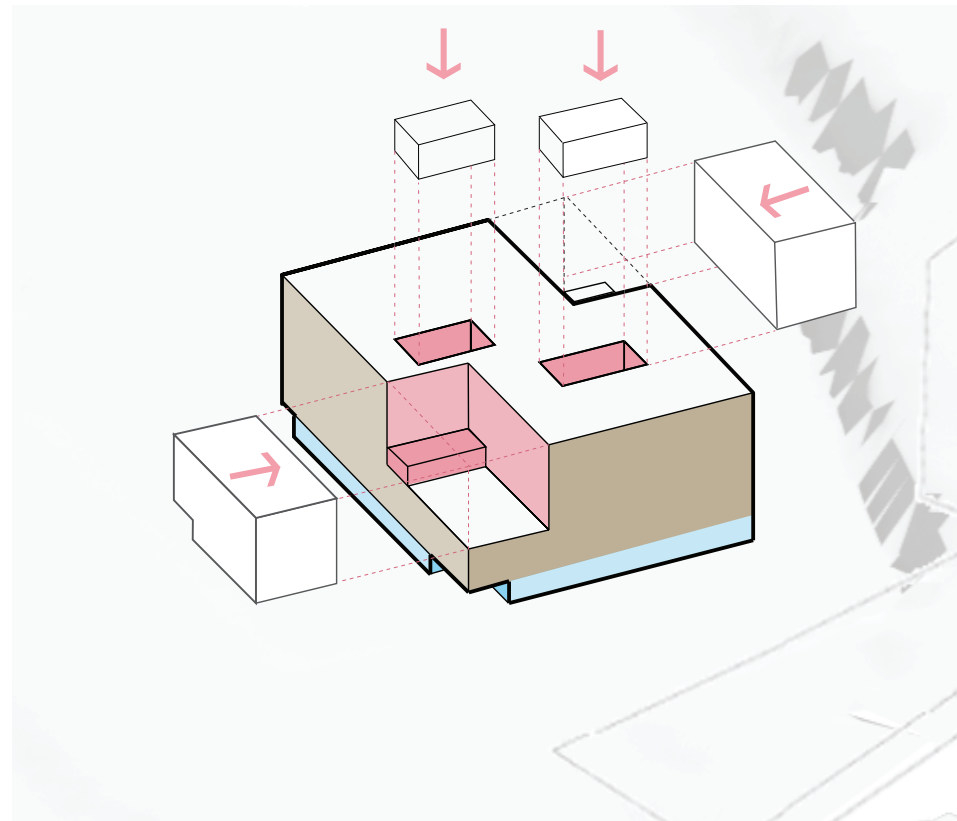
→ Carved out north south volume to create a clear arrival and establish view corridors between Eastern Hill and central garden.

BUILDING ARTICULATION



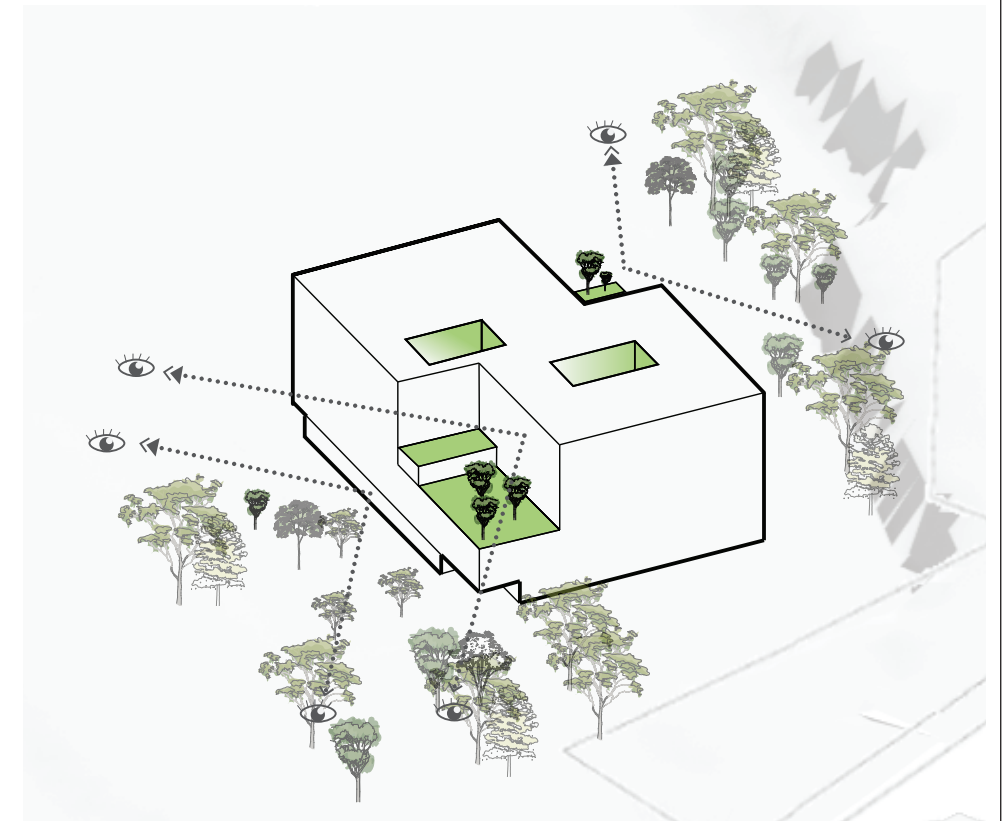
Connectivity and daylight

→ Notched out segments at ground floor create connections to the rest of the campus and landscape. Central courtyards are carved out to give access to deep areas of the floor plate, improving staff and patient well-being, and improving energy efficiency.



Facade Composition

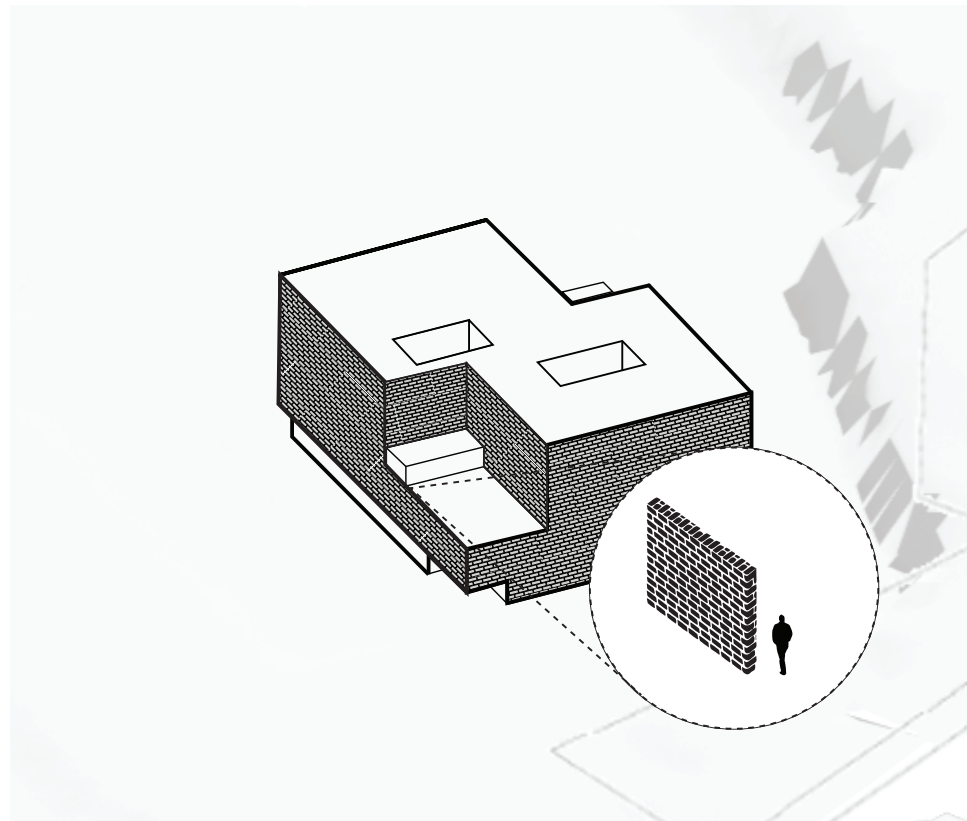
→ Courtyards are created through clear carved out volumes that establish massing and facade articulation.



Access to nature

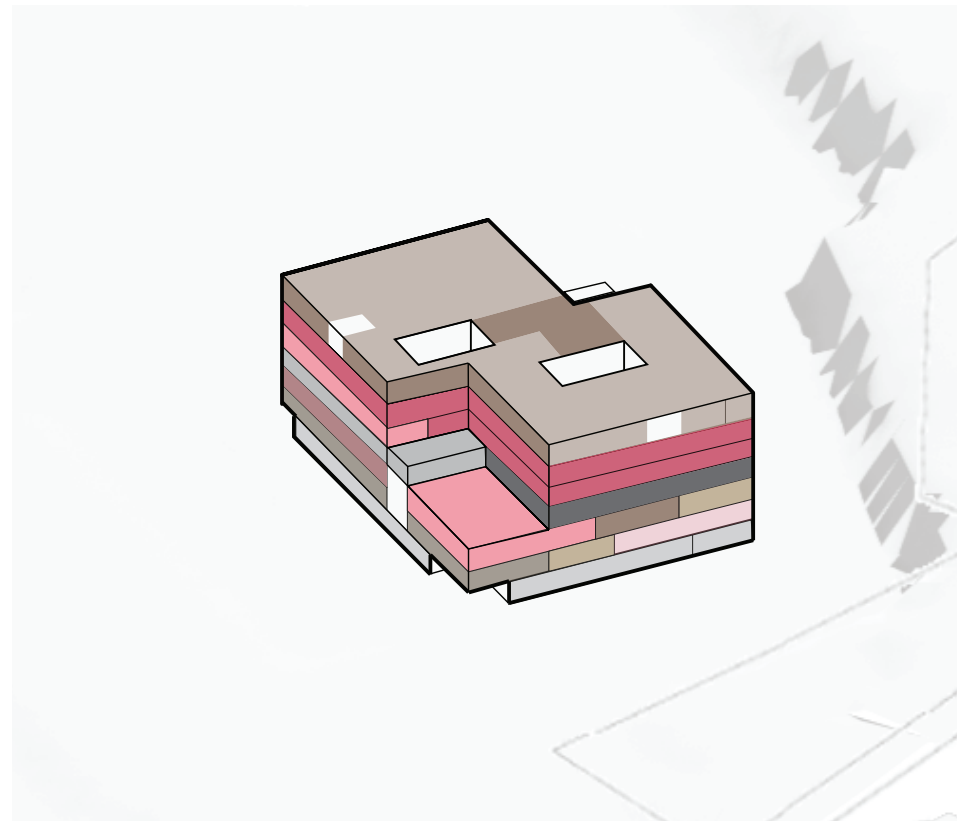
→ Much like the existing hospital design, staff and patient experience is enriched through access to nature. Elevated courtyards will be designed as spaces that break down the institutional feeling typical of hospitals.

BUILDING ARTICULATION



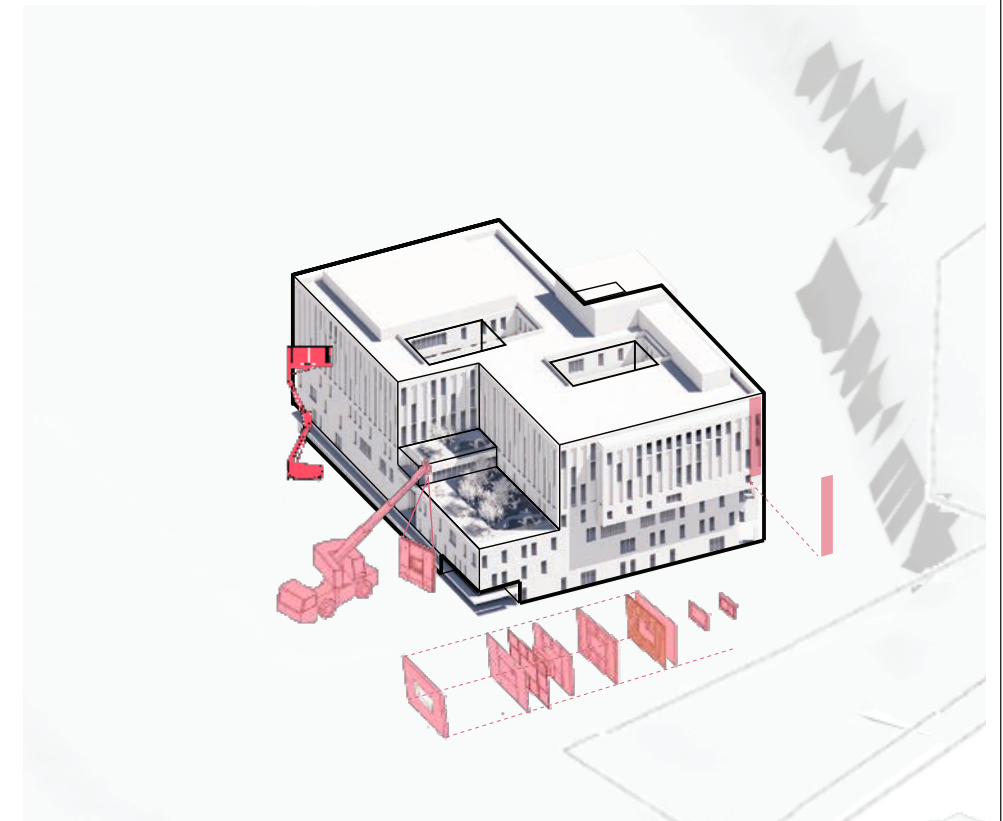
Texture and scale

→ The CSB will be the largest building on the Hospital campus. Through the articulation and refinement of fine grained facade materials, the building will establish a human-scale relationship which will soften its presence.



Driven by functional requirements

→ We have analysed the programmatic daylight access requirements, whether this is workplace or operating theatres. Each space has a need to limit or maximise access to natural light. The window to solid facade design responds to these functional drivers.



Maximise prefabrication opportunities

→ By standardising, and limiting decorative facade embellishments, we maximise the opportunity for pre-fabrication and modularisation of the facade. This provides a robust and cost effective solution in a complex procurement environment.

8.8

BUILDING

FABRIC

The building fabric is fundamental to the identity of the project, and will reflect the ambition, purpose and design appropriateness for Albury. We are proposing a solid, panelised system that will ground the project in the Albury context - which could be brick tiles, terracotta or another panelised system.

When considering the primary building fabric material, we have focused on the key principles listed below. The facade detail will be developed and further assessed in the next phase.



Sustainability

- The building fabric must have exceptional sustainability credentials. It must be durable and have longevity, reducing the need for frequent maintenance or replacement
- The manufacturing process should involve low energy consumption, aligning with the project's goal of minimising carbon footprint.



Texture and Scale

- The design approach of the Albury Hospital emphasise a human-scale pattern, which brick or terracotta can achieve beautifully. The texture and warmth of these materials will create a welcoming environment, promoting a sense of comfort and familiarity for patients, staff and visitors.
- The building facade must integrate seamlessly with the surrounding built fabric.



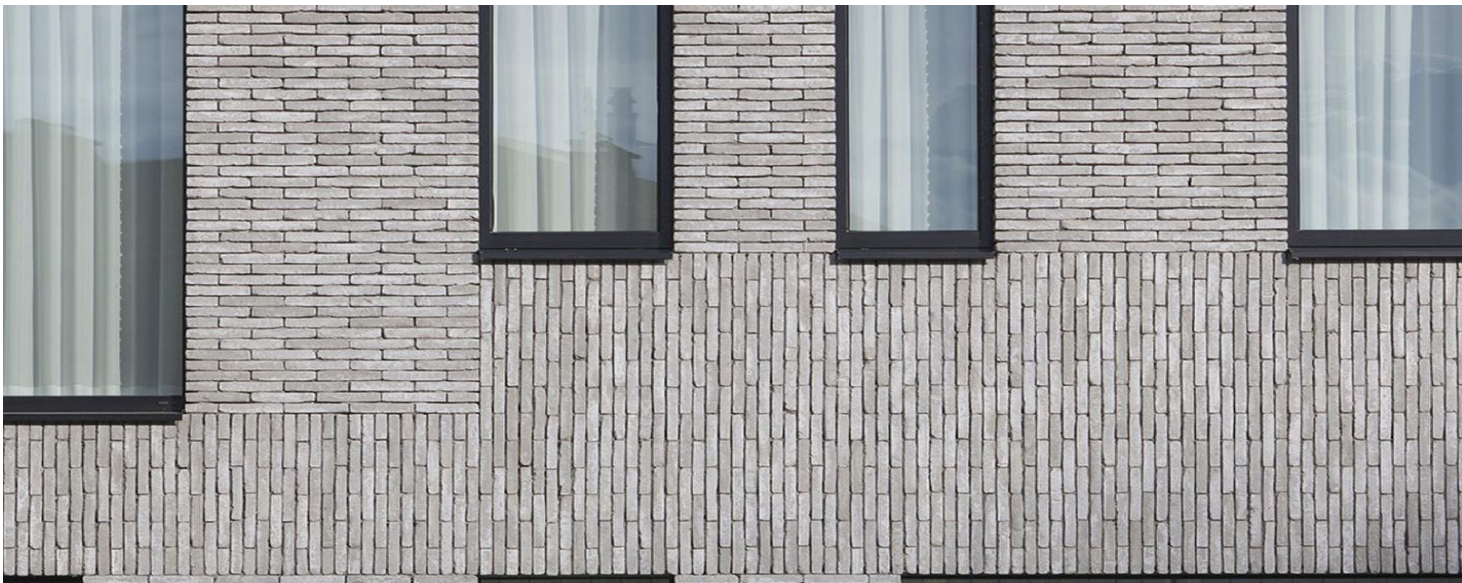
Civic Contribution and Contextual Harmony

- Albury City boasts a rich architectural heritage characterised by numerous buildings adorned with brick façades. By continuing this tradition, the new hospital pays homage to the city's history and architectural identity
- Co-existing alongside existing brick buildings,



Value for Money

- Facade must be balanced in design to meet project objectives and constraints
- Look to maximise efficient use of materials relative to orientation



PANELISED FACADE OPTIONS

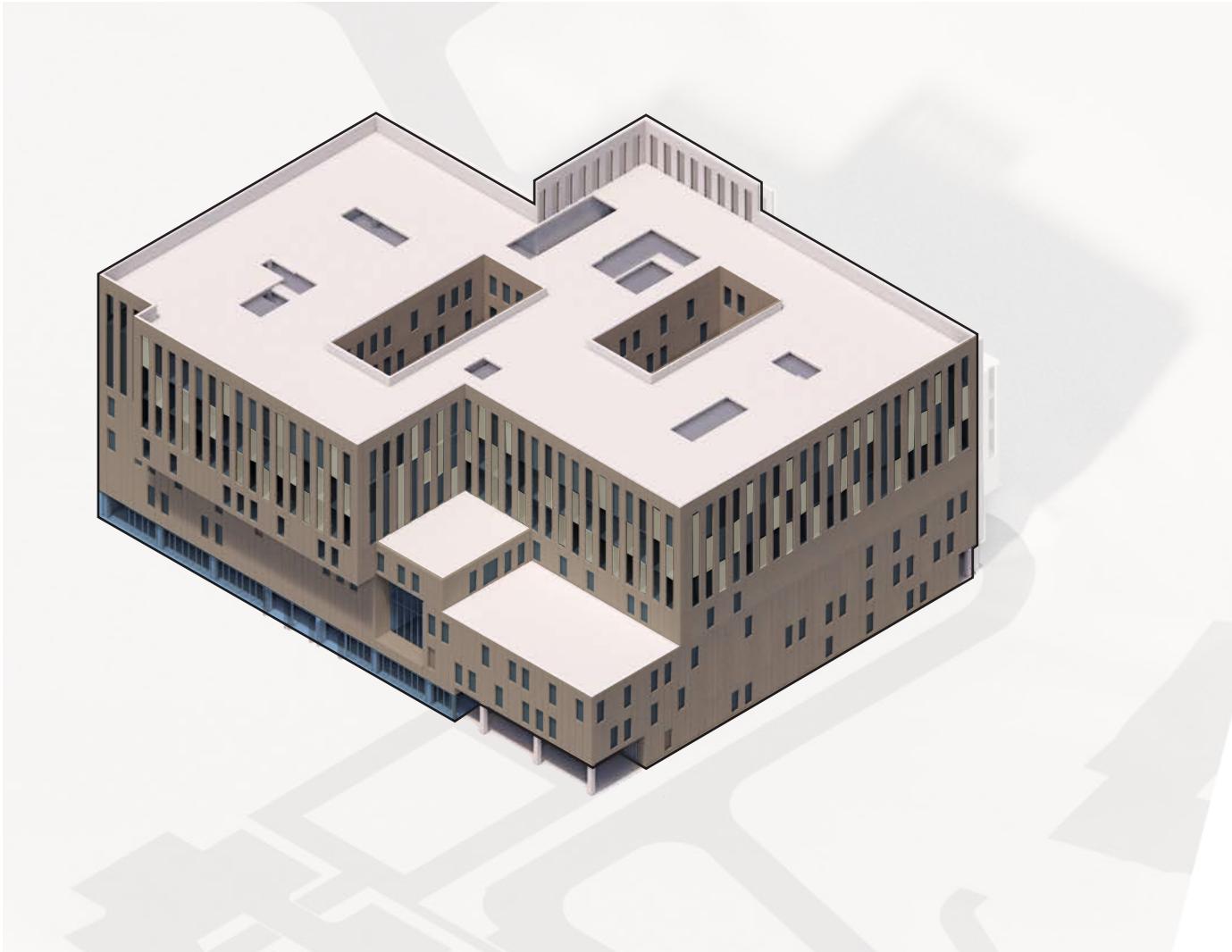


BUILDING FABRIC

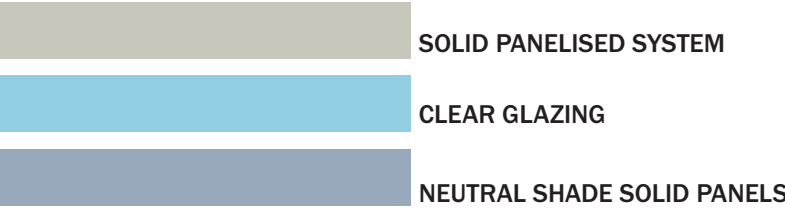
The functionality, relevant design guidance notes and sustainability drives a low glazing to solid building fabric. The below diagram illustrates the extent of glazing relative to solid building fabric.



North West Isometric



South East Isometric



BUILDING FABRIC COMPONENTS

COURTYARD FACADE

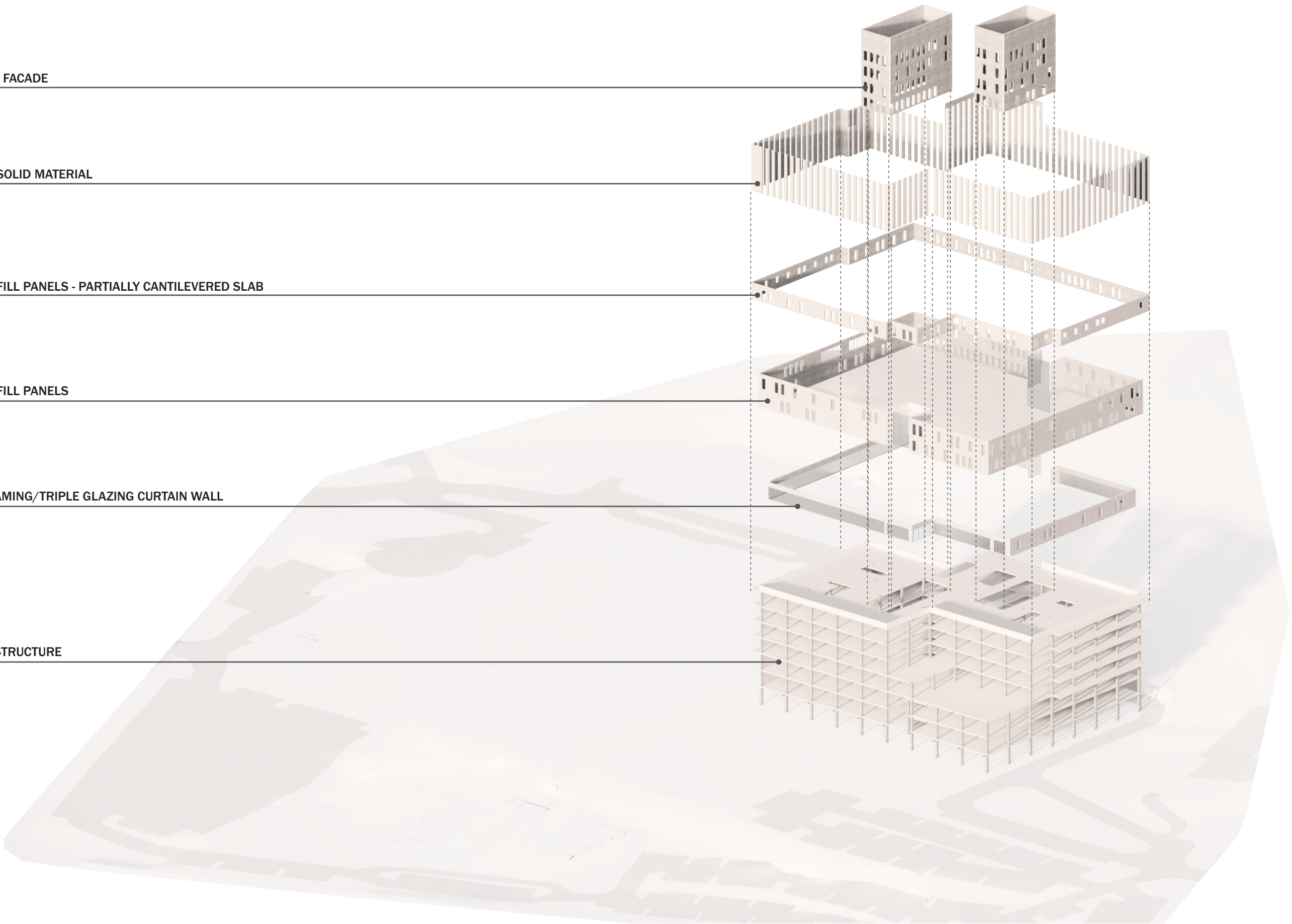
PANELISED SOLID MATERIAL

WINDOW INFILL PANELS - PARTIALLY CANTILEVERED SLAB

WINDOW INFILL PANELS

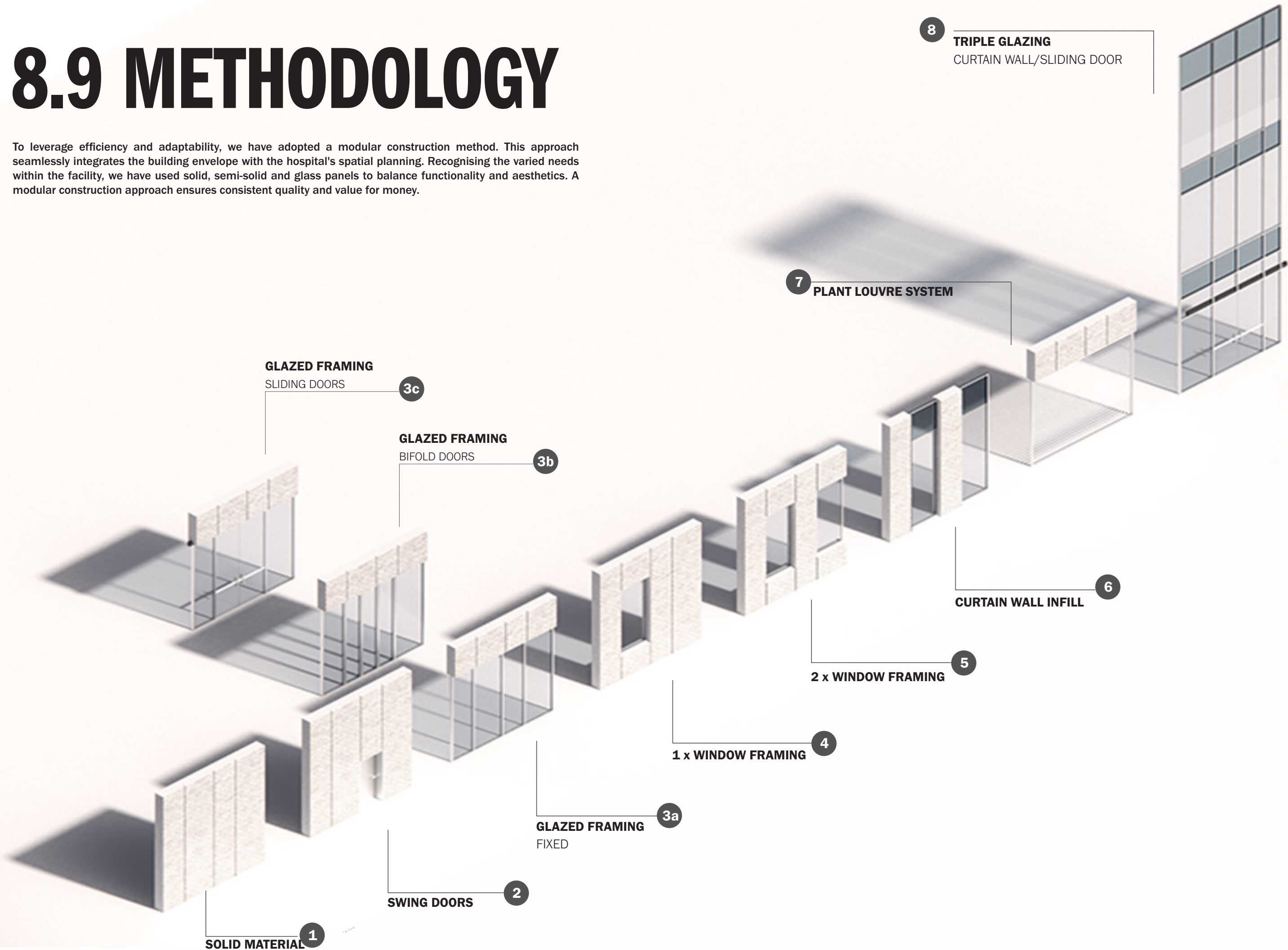
GLAZED FRAMING/TRIPLE GLAZING CURTAIN WALL

CONCRETE STRUCTURE



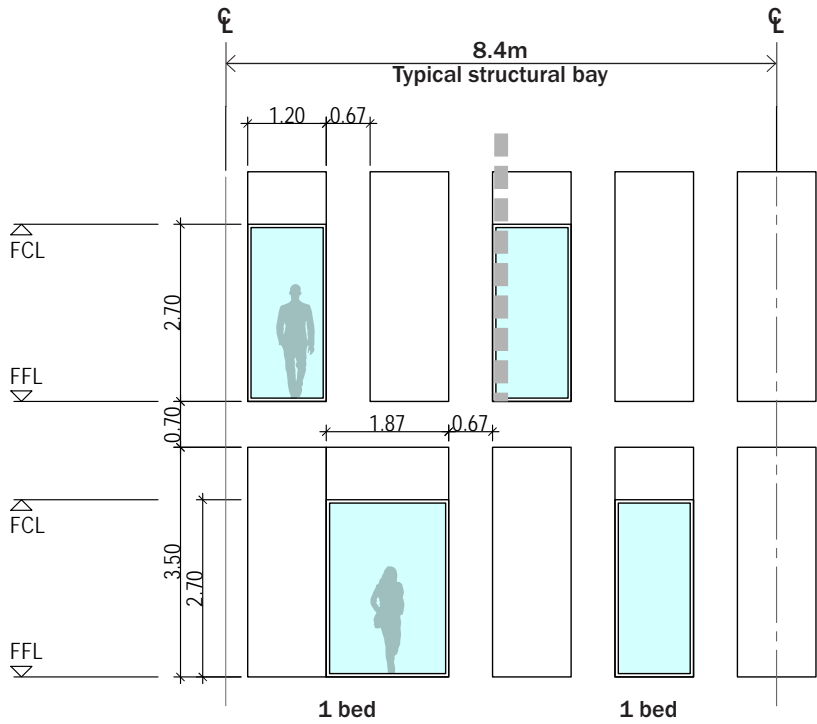
8.9 METHODOLOGY

To leverage efficiency and adaptability, we have adopted a modular construction method. This approach seamlessly integrates the building envelope with the hospital's spatial planning. Recognising the varied needs within the facility, we have used solid, semi-solid and glass panels to balance functionality and aesthetics. A modular construction approach ensures consistent quality and value for money.



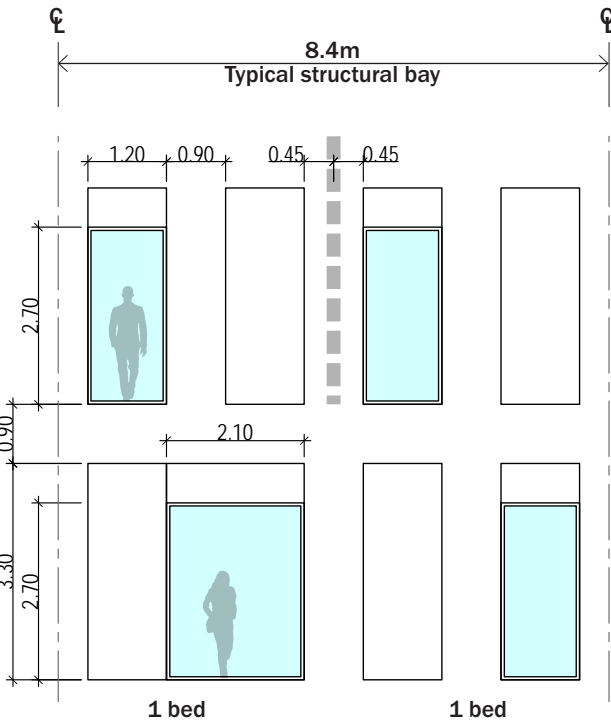
TYPICAL FACADE MODULE

9 x divisions
4.5 window modules per bay

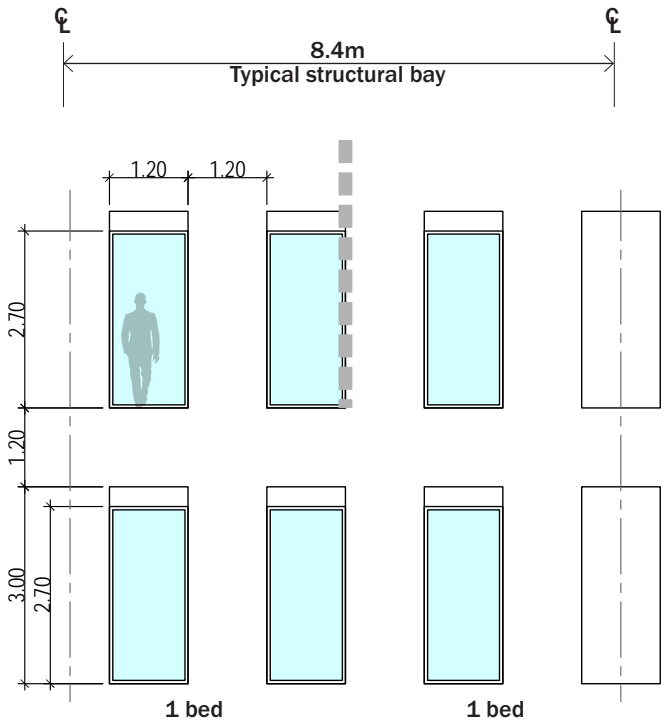


8 x divisions
4 window modules

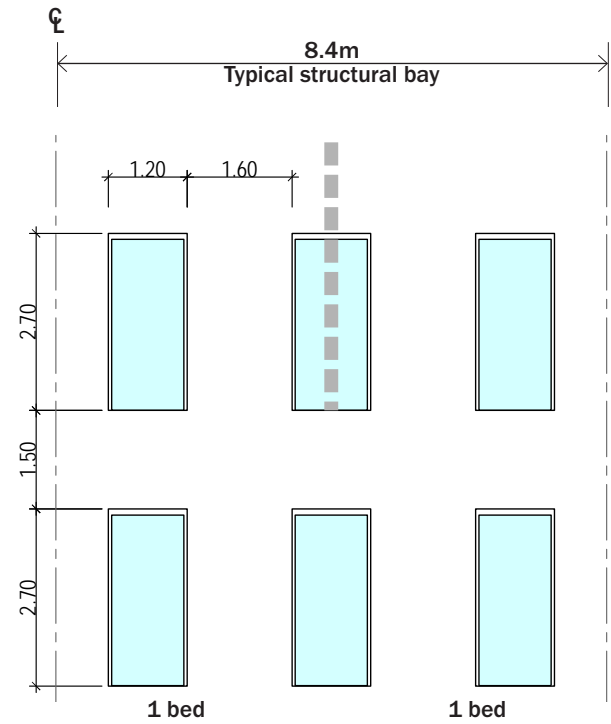
Preferred



7 x divisions
3.5 window modules



6 x divisions
3 window modules



ELEVATIONS



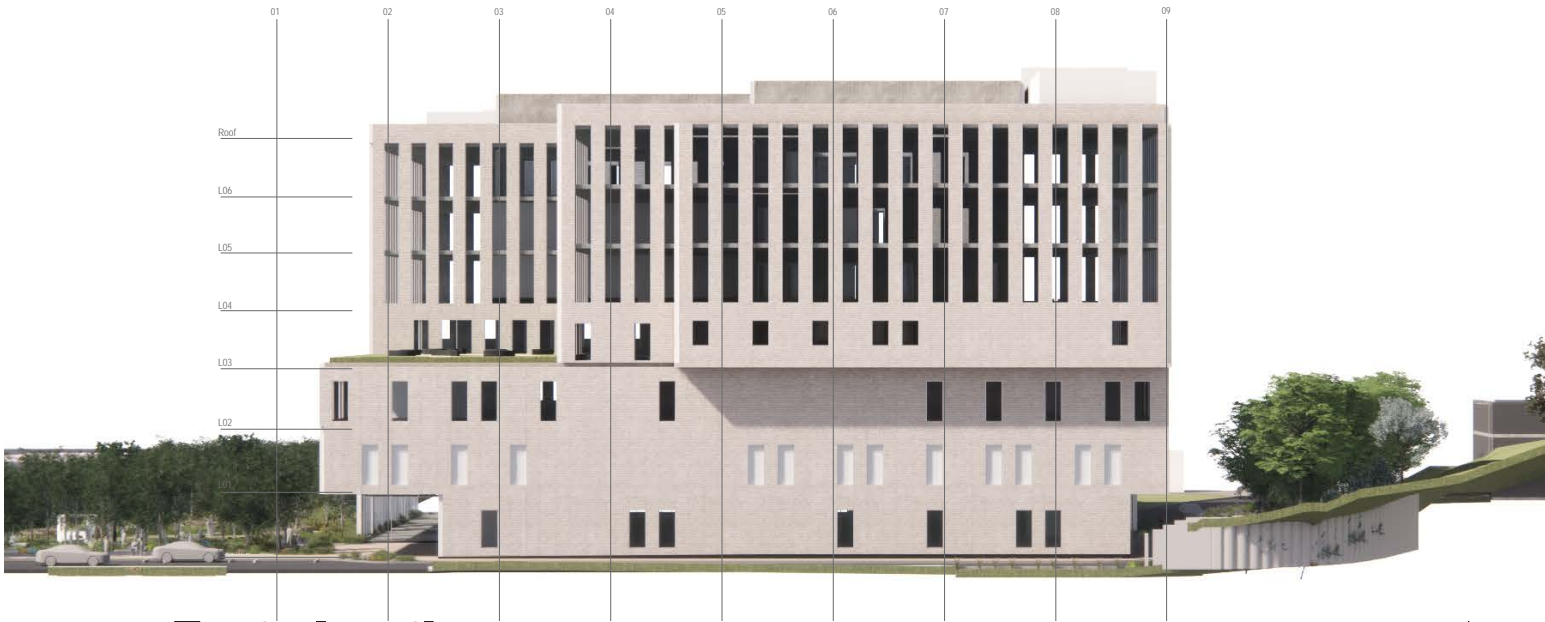
North elevation



South elevation



West elevation



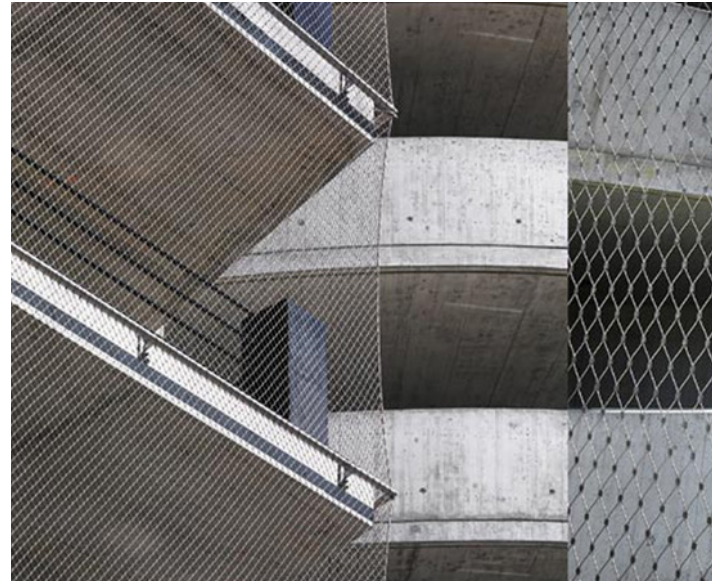
East elevation

CAR PARK FACADE

Car park facade

The car park facade is intended to be primarily a tensile, stainless steel mesh as this achieves:

- A singular, considered, restrained external facade
- Safety compliance for fall protection
- A cost effective solution



8.10

LANDSCAPE

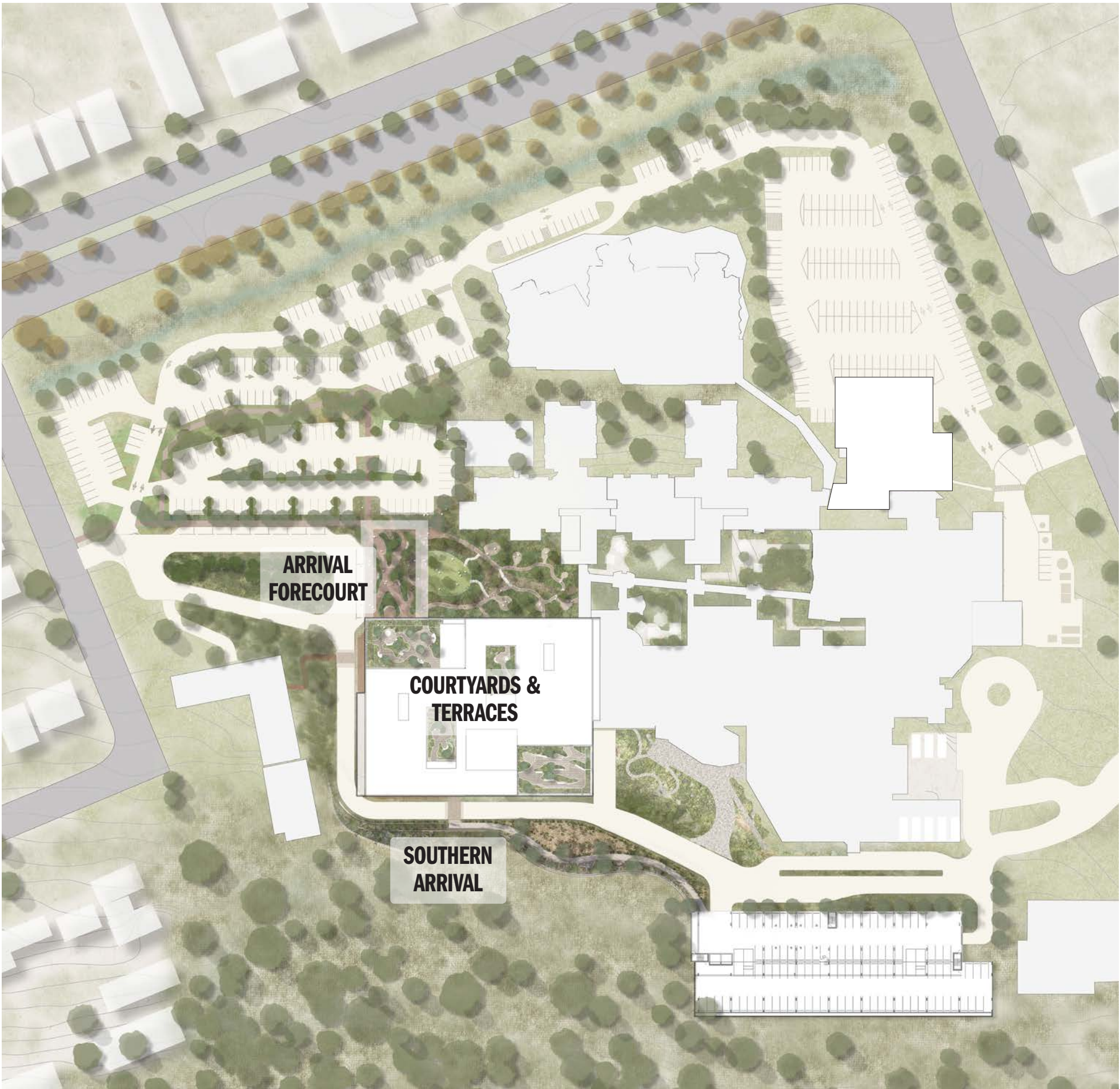
The Albury Wodonga Regional Hospital project will sit immersed in landscape. The landscape design embraces the qualities of its surrounds, where the character of the Albury town grid and the local gardens meets the bush-land qualities of Eastern Hill. This confluence of characters is reflected in the existing campus today. The proposed landscape spaces for the hospital will embrace and build upon the qualities of care that are evident in these existing spaces. The project design will form a new series of gardens, courtyards and terraces that will support the well-being of patients, staff, visitors as well as the health of the broader landscape.

Conceptual Approach

The conceptual approach to the landscapes of Albury Wodonga Regional Hospital is embedded in Country, taking both a practical and conceptual stance to both reflect and nurture Country. This approach resulted in three overarching principles for the landscape scope:

- Crafted by Country
- Embedding the garden culture of Albury
- Non-institutionalised

For further detail on the landscape design, refer to 'Landscape Concept Design Report' by Hassell.



8.11

IMPACTS ON EXISTING DEPARTMENTS

The existing departments listed below will be impacted by the redevelopment:

Allied Health

- Temporarily relocated whilst area is demolished
- Located in Early Work Relocation building during main works construction

Breast Screening

- Relocated off-site to community location

Mental Health

- Relocated once CSB completed - Nolan House demolished
- Permanently located in CSB

Paediatrics

- Remains in operation during construction
- Permanently located in CSB

Pharmacy

- Temporarily relocated whilst area is demolished
- Located in Early Work Relocation building during main works construction
- Permanent location as part of refurbishment works (vacated theatres refurbishment)

ETR

- Temporarily relocated whilst area is demolished

- Located in Early Work Relocation building during main works construction
 - Permanently located in CSB
- Medical imaging**
- Remains in operation during construction
 - Expanded in main works as a part of refurbishment scope

CSSD

- Remains in operation during construction
- Relocated to CSB

Operating Suites

- Remains in operation during construction
- Expanded in main works - theatres relocated to CSB

Medical workforce

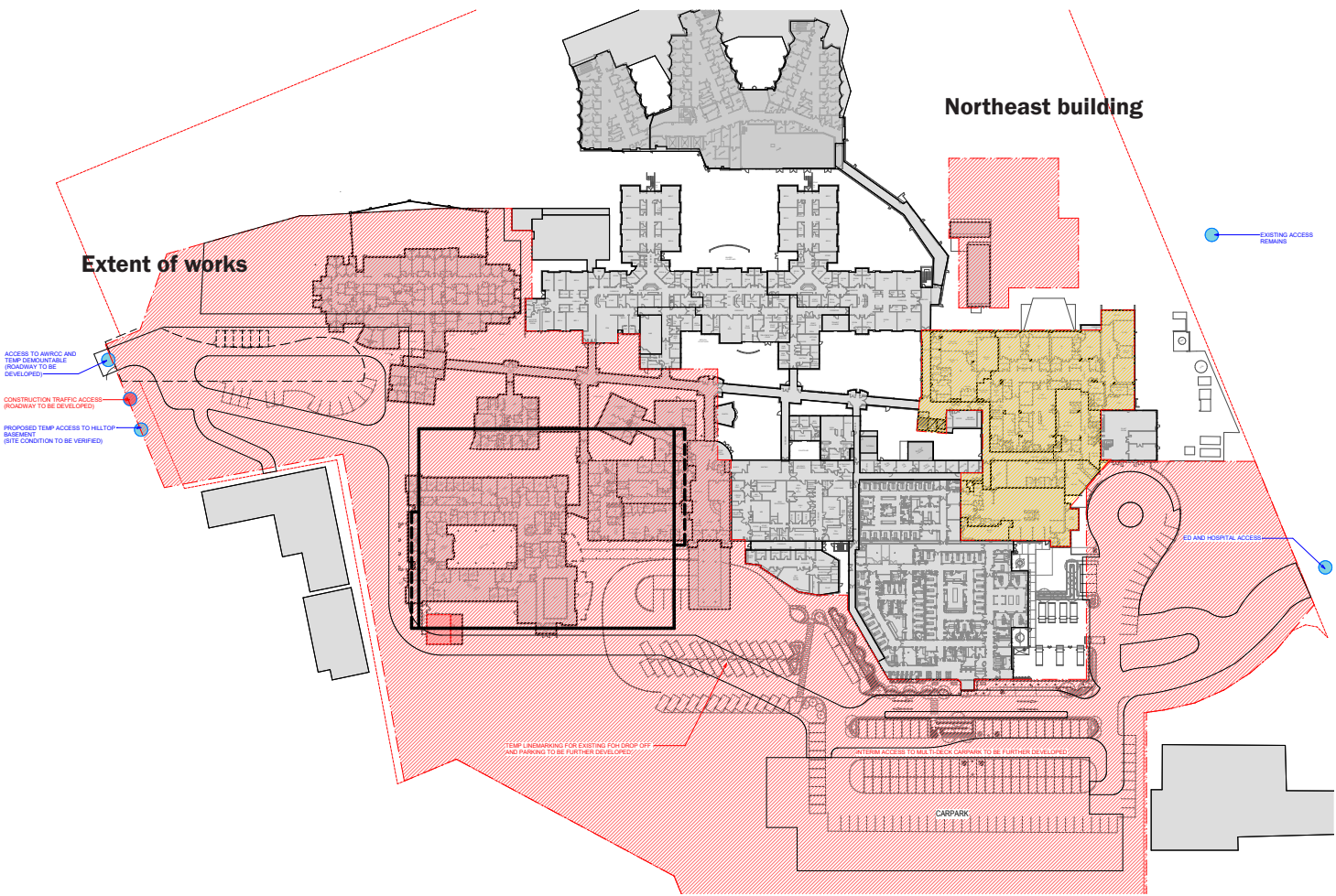
- Temporarily relocated whilst area is demolished. Currently intended to be located in Early Work Relocation building during main works construction. This is under review and will be confirmed.

Site

- The existing FOH entry will remain operational through construction, but will be impacted by site hoarding and construction activities. A strategy around this will be developed in

future phases.

- Car parking will be impacted during construction works.
- Temporary ED car parking will be constructed east of ED.
- Vehicle entry points to be maintained during construction, but will be traffic managed to enable construction and public/staff to use in a safe manner.
- Direction of approach for public vehicle ED drop-off (currently westward) will be reversed (eastward).
- The new CSB and the existing hospital/BOH are connected by a new staff, patient, and logistics circulation corridor located to the south of the existing Medical Imaging Department. To enable the construction of this main circulation corridor, the existing ED stair will need to be relocated to the south of the new corridor, and the roof-level access way extended to the new ED roof level plant, along with relocating the existing accessible staff change within the scope of the Medical Imaging refurbishment works. The planning of this will be done during the schematic design phase.
- The existing loading dock will be impacted by infrastructure works, including the oxygen tank. This area will remain operational during construction activity.



8.12

FUTURE PROOFING

The balance of achieving optimal outcomes for the project scope, as well as enabling a framework for future expansion is fundamental to the project design

Core and structure design

- The implementation of a typical 8.4m grid for the CSB allows future expansion to be seamlessly integrated
- Various studies have been undertaken on core placement relative to future expansion. Given the approach to staging (refer Chapter 5), the CSB core is placed relative to clinical connections and future growth

Expansion zones

- Expansion zones are identified north of the CSB in place of the existing IPU's
- Expansions zones are identified between the CSB and the ED department
- As future phases of the project are realised, the expansion framework envisions public movement at ground floor and clinical movement at Level 1 and above
- The departmental layouts on Ground and Level 1 will be planned to enable clear linkages to future developments

to the north and the east

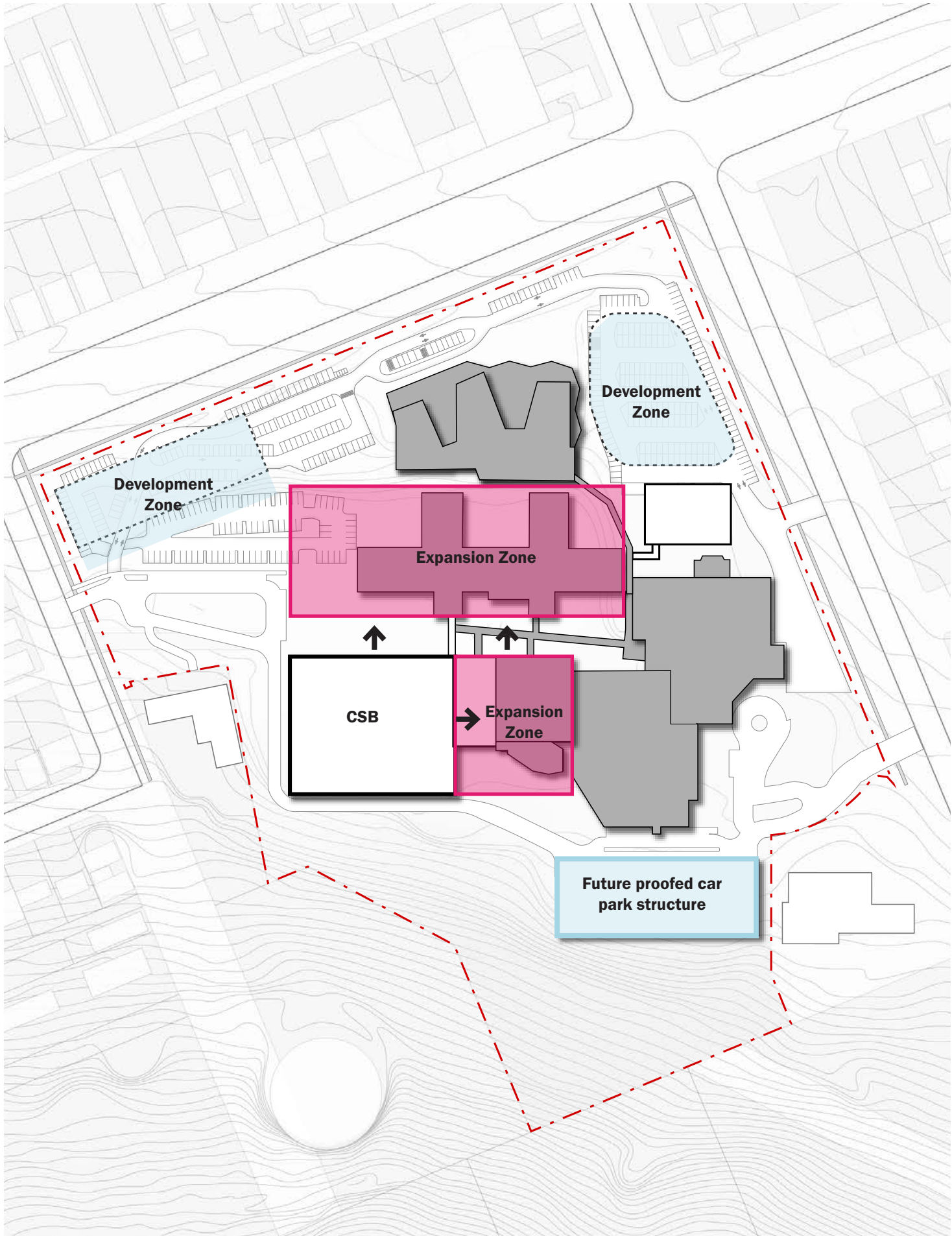
- Key elements of site infrastructure (e.g. in ground tanks, medical gases, refuelling points) are located outside of expansion zones

Multi-storey car parking

The multi-storey car park is designed to meet Project Scope requirements. The primary structure however will be designed so that additional levels can be built in later phases of the project.

Future Development Zones

Two future development zones have been identified in the North East and the North West corner. These zones sits outside of main works construction and enable development to occur independent of currently funded project timelines. This strategic positioning opens up avenues for collaborative growth and partnerships within the healthcare ecosystem.



8.13

INTERIOR DESIGN

Creating inviting and comfortable spaces within institutional settings is essential for promoting overall well-being and comfort. The interior design draws inspiration from the surrounding landscape and context, we can humanise these spaces and make them more welcoming. This approach involves using a design language that emphasises calmness and restraint, incorporating materials that evoke empathy and warmth.

Public and staff will be able to walk through the new development and feel instantly at ease. This sense of comfort can be achieved by carefully selecting materials and design elements that resonate with the natural environment and local culture. For example, using wood, natural fibres, and soft colours can create a soothing atmosphere that helps reduce stress and anxiety.

Our ambition is to move away from the cold, impersonal feel that often characterises institutional spaces.

Instead, by celebrating a design that is both calm and thoughtful, that enhances visual connection to nature, we can foster a sense of belonging and emotional well-being for everyone who enters. This approach not only enhances the aesthetic appeal of these spaces but also supports the mental and emotional health of the people who use them. This is not a singular place but a complex arrangement of planting to create an unique and special experience.



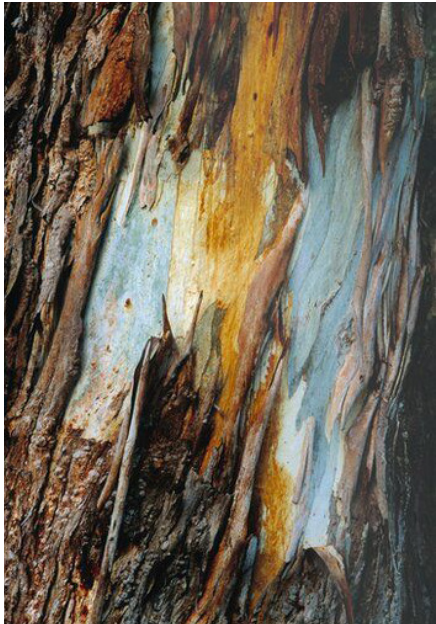
MATERIAL PALETTE

CONNECTION TO PLACE

Granite



Red River Gum



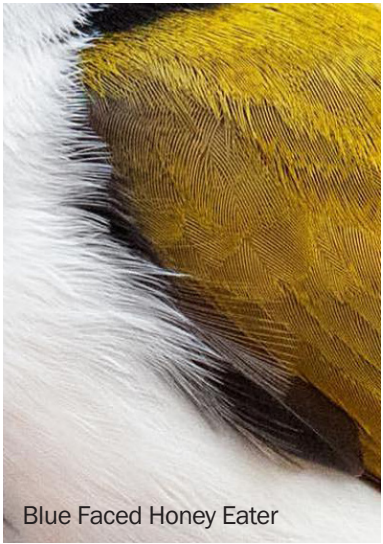
Box Gum



Imperial Blue Butterfly



Blue Faced Honey Eater



Water and reflection



Kangaroo Grass



"Red River Gum" by Albert Namatjira, 1950s



Eastern Grey Kangaroo

The interior design strategy is guided by the need to create a clear and tangible connection to nature and external views, visually and physically. This strategy is well-aligned with evidence-based design principles, which emphasise the therapeutic benefits of such connections. It encourages a design continuum, where the border between the building's interior and the surrounding environment is perceived as interconnected.

MATERIAL PALETTE

CONNECTION TO PLACE

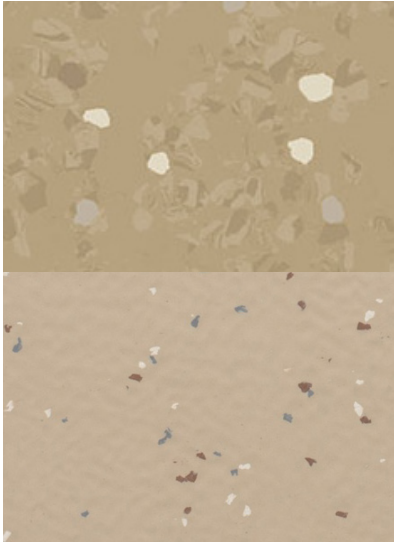
Natural materials and tones



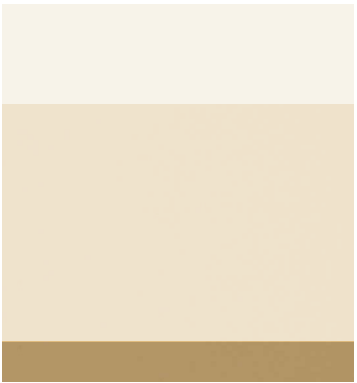
Patterning, texture and material - reflecting the landscape



Grounded, movement



Tonal



Promote immersion in landscape, amplify place + views



Bringing the outside in - blend of architecture and interiors

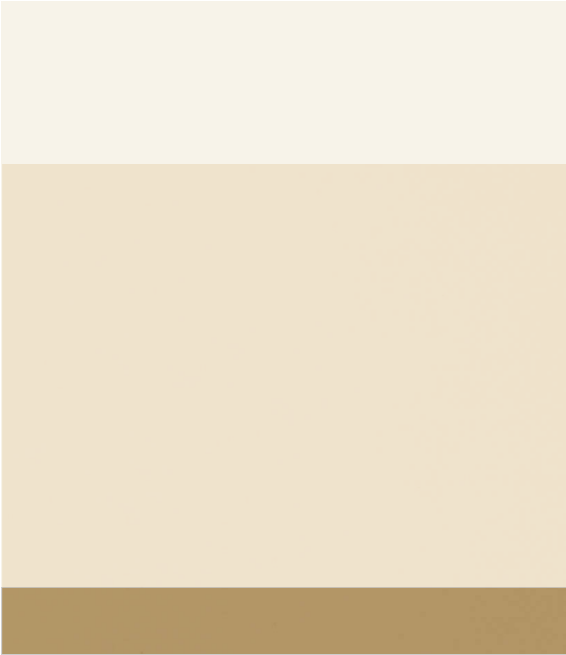
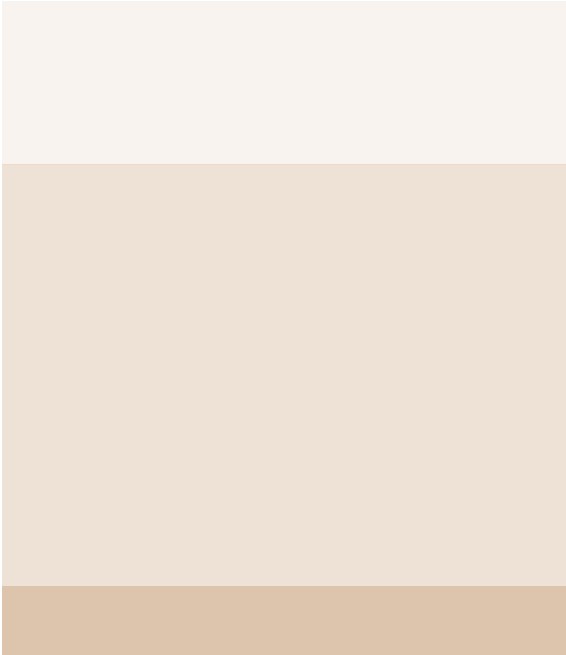
BASE PALETTE

A deliberately edited
and warm base palette



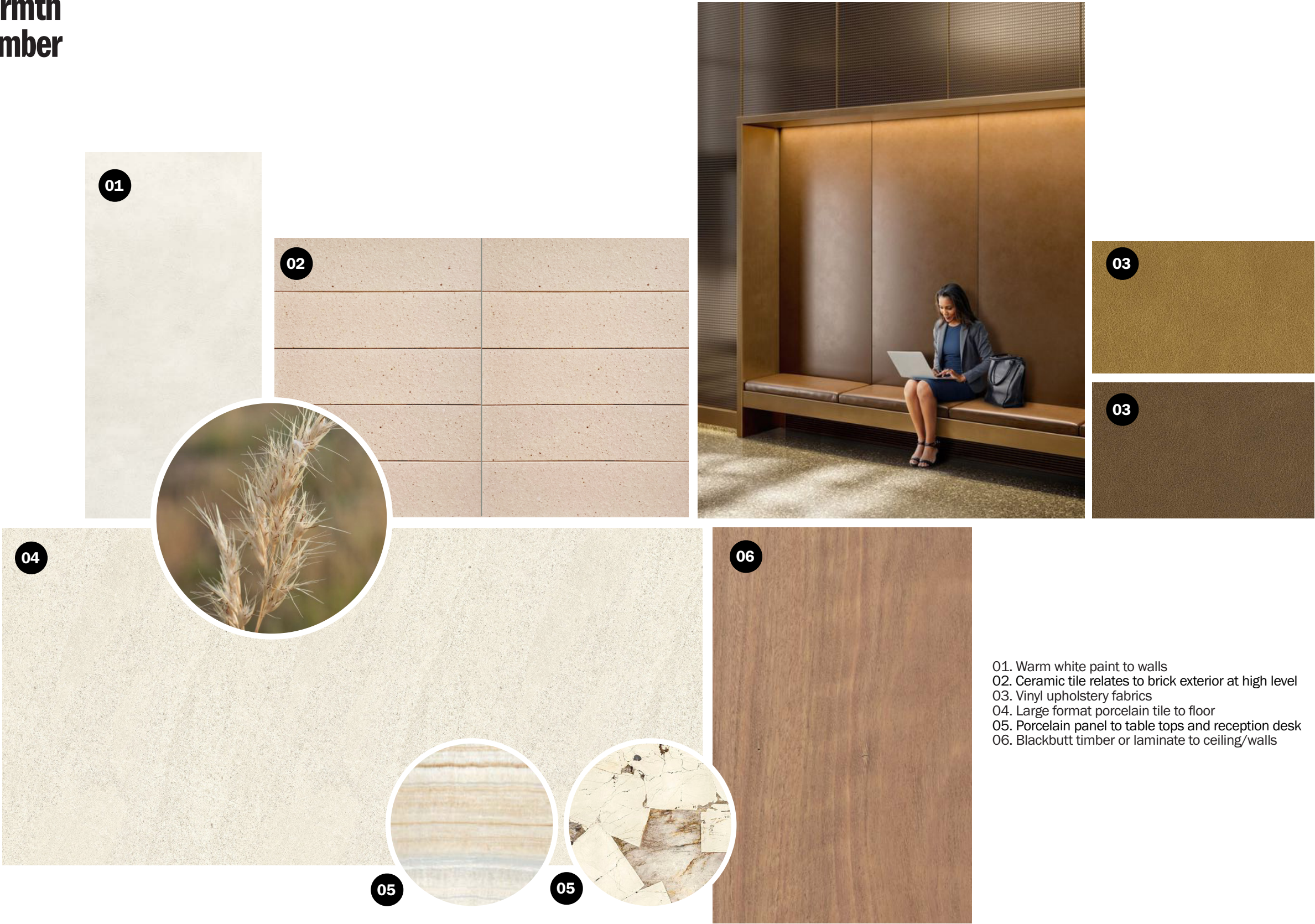
COLOUR

Moments of subdued
colour found in local
flora and fauna



PUBLIC SPACES

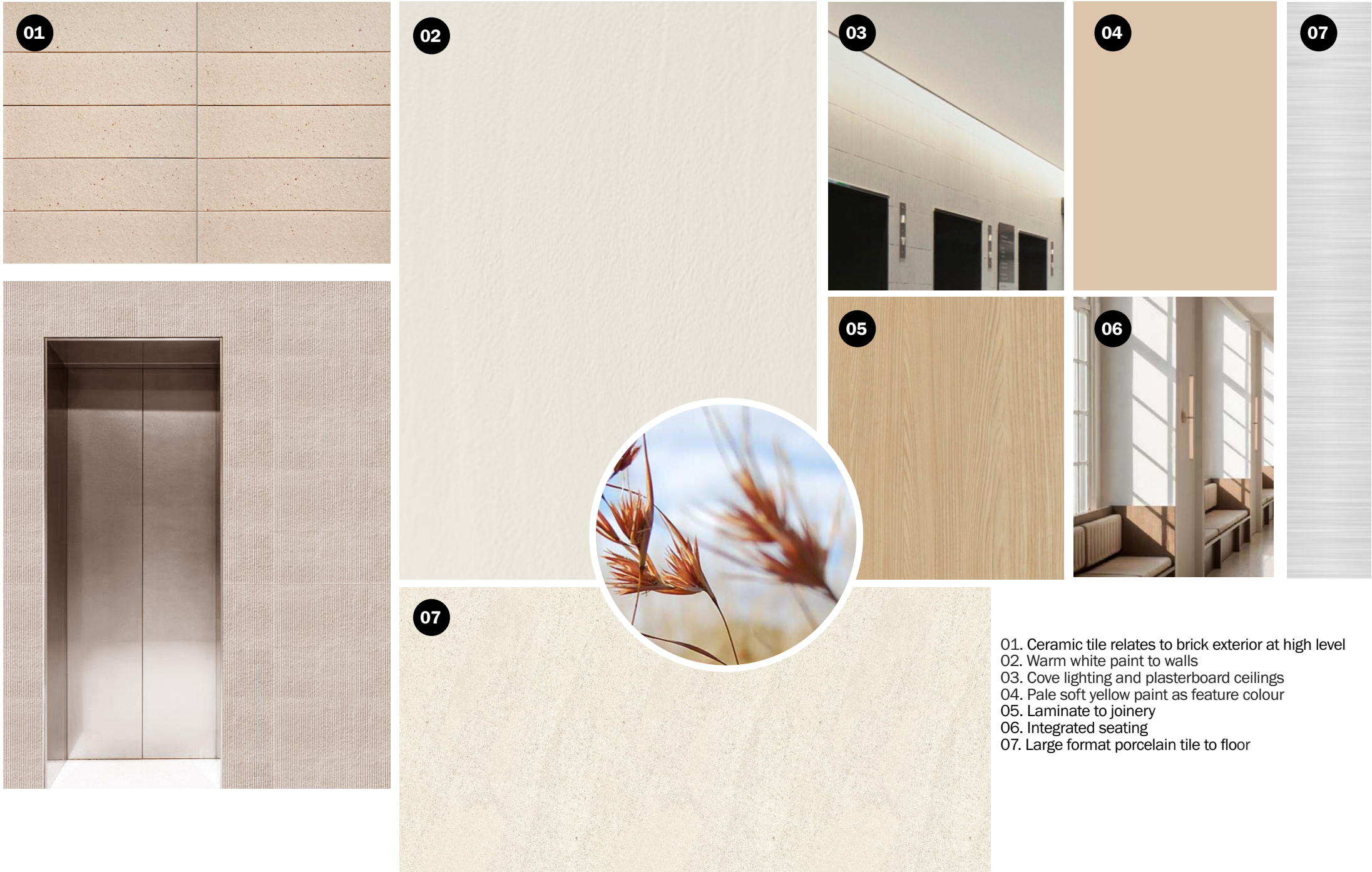
Off white warmth
Australian timber
Flax



- 01. Warm white paint to walls
- 02. Ceramic tile relates to brick exterior at high level
- 03. Vinyl upholstery fabrics
- 04. Large format porcelain tile to floor
- 05. Porcelain panel to table tops and reception desk
- 06. Blackbutt timber or laminate to ceiling/walls

CIRCULATION

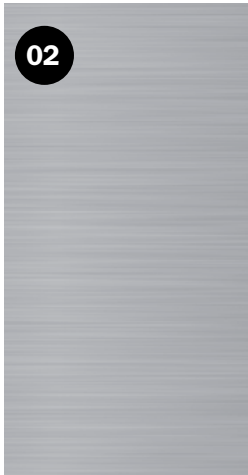
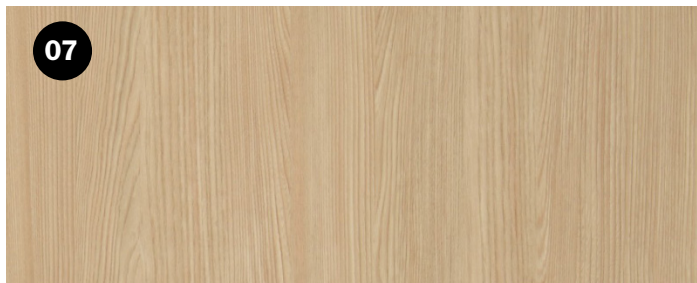
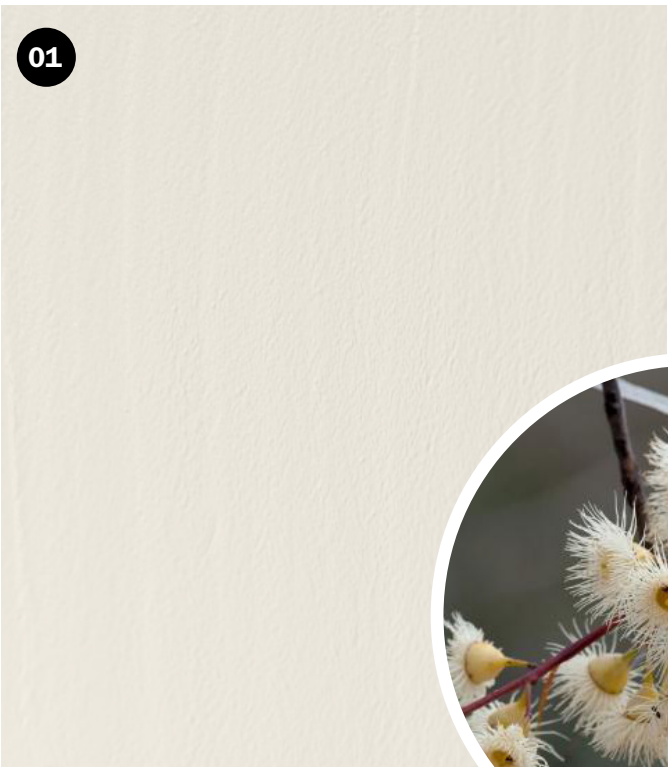
Grounded and Calm
Integrated Art



- 01. Ceramic tile relates to brick exterior at high level
- 02. Warm white paint to walls
- 03. Cove lighting and plasterboard ceilings
- 04. Pale soft yellow paint as feature colour
- 05. Laminate to joinery
- 06. Integrated seating
- 07. Large format porcelain tile to floor

CLINICAL SPACES

Calm spaces made from robust, sustainable materials appropriate for a clinical environment



- 01. Warm white paint to walls
- 02. Wall protection to 900 mm datum
- 03. Vinyl to floor
- 04. Pale soft yellow paint as feature colour
- 05. Powdercoat colour to window frames
- 06. Vinyls to banquettes
- 07. Timber Laminate to joinery
- 08. Ceiling tile with integrated services

WORKSPACES

Natural materiality and tone
Diversity to collaborative settings



- 01. Warm white paint to walls
- 02. Cork finish to collaboration spaces
- 03. Subtle patterning to upholstery
- 04. Textured First Nations carpet tile
- 05. Rubber to floor
- 06. Porcelain panel to teapoint
- 07. Laminate to joinery





8.14 PUBLIC ART STRATEGY

Art for this project will be at its best when it is integrated and considered with the architecture, not as an afterthought. Artwork is intentional and its placement and integration must be equally intentional. The right art can enliven a space, mark key points along a journey or help create meaning and activity to a space. Art can play an important role in fostering a supportive environment for healing, while enhancing the hospital's identity and connection to the community.

Local community

- The Albury/Wodonga region, home to a dynamic arts and cultural community. We will engage with them through PCAG and other public consultations to understand which local artists hold significance in the community
- There is also opportunity to consider patient (and families) artwork display

First Nations

- Engage with local First Nations artists through display or specific commission opportunities.

Art events

- There is potential to hold an event-based arts programme through the external courtyard spaces, offering dynamic and engaging experiences within the hospital precinct. These events will provide an opportunity to integrate the hospital with the broader cultural fabric of Albury/Wodonga, creating a setting that is not just a healthcare facility but also a vibrant community.

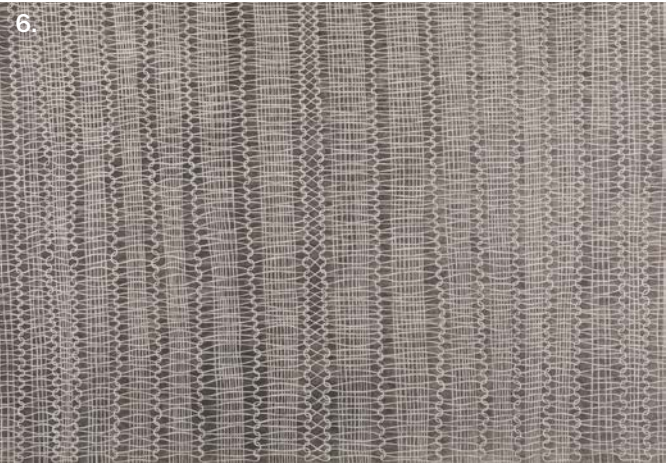
Art as wayfinding

- There is opportunity for digital or physical art installations, leveraging them not just for their aesthetic and emotional impact, but also as functional elements can support wayfinding throughout the facility. These artistic inclusions can serve as spatial markers supporting users navigation and orientation through the building, enhancing their overall experience.

Partnerships with local galleries

- There is potential to partner with prominent local institutions such as the Murray Art Museum Albury (MAMA), Arts Space Wodonga, Albury & District Historical Society and Wodonga Historical Society. Partnerships such as these could offer opportunities for curated exhibits or collaborative programmes.

1. *The Stage*, 2021 - Wodonga Artist Ken Raff, Image by Jeremy Weihrauch
2. *Herston Health Precinct*, designed by Hassell in collaboration with artists
3. *Marking Time*, 2021 - Albury Artist Barb Strand, Image by Jeremy Weihrauch
4. *No Free Parking (detail)*, 2019 - Wiradjuri artist Bethany Thornber. Image Courtesy of the Artist
5. *Curves and Crisp Edges*, 2019 - Northeast artist Linda Lees. Image by Murray Art Museum Albury
6. *While counting interludes*, 2019 - Chiltern-based artist Beth Peters Image by Nat Ord



8.15

REGENERATIVE DESIGN

Regenerative Design

A sustainable and resilient redevelopment is crucial to the longevity and use of the site, and is at the core of our design approach to the project. By creating a vibrant, comfortable and usable environment for all users throughout the year, the redevelopment will be a positive contributor to the community.

Albury will experience increased weather uncertainty and likely hotter, drier peak events over the coming years. The systems we design for the redevelopment must maximise the potential of the place, limit peak loads, maximise the benefits of nature, and provide infrastructure in a way that supports the overall hospital's resilience and operating pressures.

The sustainability approach focuses on two key themes:

Nature

Maximise the benefits of access to landscape, which includes:

- Embedding nature
- Green infrastructure
- Well-being and community driven

Net zero

Utilise passive measures to improve comfort, which includes:

- Circular materials
- Reduce energy demand and operational costs
- Minimise waste

Key strategies

Nature



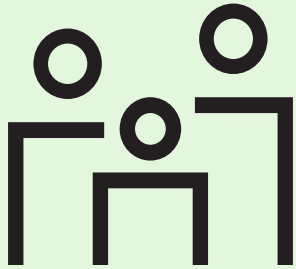
Embed Nature

Connection to nature and Country enhances well-being, and benefits the broader community



Green Infrastructure

Infrastructure that supports the longevity of the site and provides ongoing benefits to staff and patients



Community and Well-being

The new AWH will be a suitable and welcoming space for the community

Net Zero



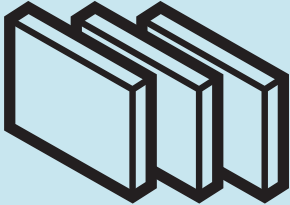
Circular Materials

Design intent is for locally sourced, ethically produced and low embodied carbon materials. Small changes in material choices make a huge impact for this project



Energy and Operation





Design for net zero energy outcomes through passive design techniques. Reducing energy costs is imperative for the ongoing function of the hospital







Reduce Waste

Aspire to zero organic waste to landfill

REGENERATIVE DESIGN

-  - Locally sourced ingredients
-    - Modularisation to reduce construction waste
- Centralised waste management
- Selection of recyclable construction materials
- FOGO (food organics and garden organic) composting



Legend

-  Climate change adaptation
-  Natural daylight access
-  PV integration
-  Energy
-  Water
-  Materials
-  Waste
-  Ecology and biodiversity
-  Community health, well-being and safety
-  Food
-  Urban and landscape design


LANDSCAPE

-   - Use of light colour paving and roofing materials
-   - Maximise shading and weather protection through tree canopies and awnings
- 50% site area as nature
- Green infrastructure
- Continuous green spaces and place making through Connection with Country narratives
-   - Water efficient sanitary-ware
- Rainwater harvesting (roofs, car park and precinct)
- Bioswales and rain gardens to manage increased rainfall run-offs










NEW CAR PARK

-  - EV charge point
-  - PV integration

GEO THERMAL

-  - Geothermal bore hole field below carpark

CSB

-   - Natural daylight access
-   - PV integration
-  - Battery UPS (uninterrupted power supply)
-   - Energy efficient lighting and MEP equipment
- Air tightness
- Increased insulation
- Optimise solar access to reduce energy use
- Solar shading (windows, façade, GL canopy coverage)
-   - Maximise recycled material contents
- GFA optimisation to reduce material usage
- Low carbon, recyclable material selection, assessed through LCA (Timber under 25m)

REGENERATIVE DESIGN

Openable Facade to Non-clinical Spaces

Openable windows enhances physical connection to the outdoors and access to fresh air, which holds significance for First Nations Peoples and the Albury community generally, as well as contributing to the overall well-being of staff and patients. This integration of comfort, choice and connection to nature is instrumental and enhancing overall comfort levels and reducing stay.

Air Quality

Incorporating openable facade to public spaces not only promotes natural ventilation, it also creates a physical connection to outdoor fresh air which directly creates a comfortable environment for visitors, patients and staff.

Access to Nature

The incorporation of openable facades in public spaces gives the opportunity for direct connection to landscape areas. This direct connection, where you can feel and hear nature, is an important aspect of community feedback, including First Nations community. These adaptable and dynamic spaces cater to the diverse user needs, thereby supporting a holistic approach to healthcare environments.



Above diagram shows the intent to allow connection to the central gardens. To be further developed in the next phase

8.16

RETAIL STRATEGY

Retail within the hospital serves various purposes:

- As a destination for the public and their families
- Providing amenity and activation of the public spaces
- Supporting a diverse range of events and activities
- Gathering opportunities for staff and patients
- Wayfinding
- Support passive surveillance

Proposed location for retail opportunity

- Retail has been proposed near the front entry, on ground floor, opposite the main entry airlock
- Locating retail here provides opportunity for direct connection to the central courtyard space, either through openable zones in the facade or glazing that provides visual connection
- It is intended that the central courtyard space will provide opportunities for community gathering.

Offering

- The specific type of retail offering is under development and will be informed by the AWHs operational strategy
- There is potential to operate a cafe and/or retail shop
- There are opportunities to consider the needs of the community through a diverse food offering

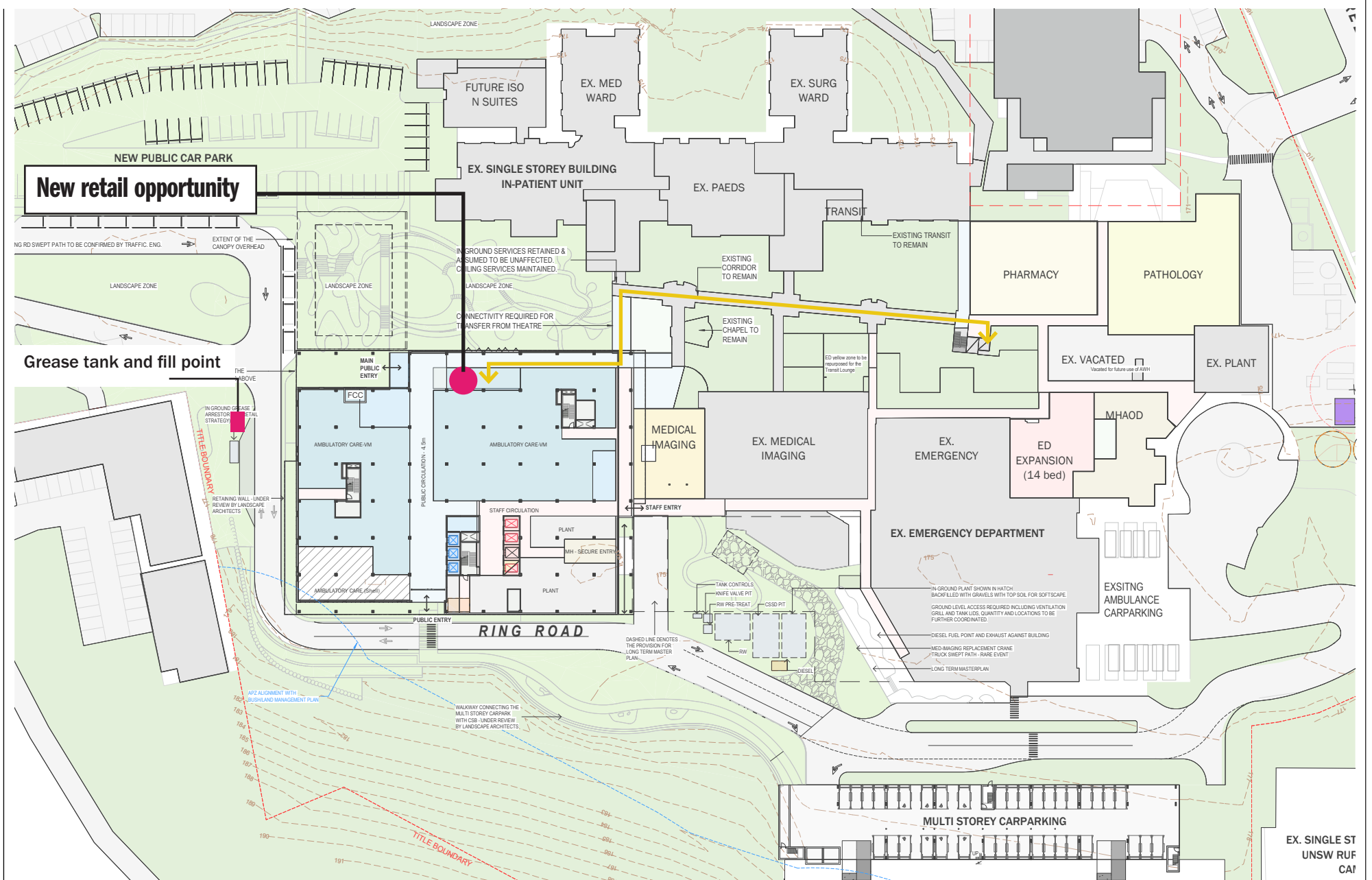
Servicing

The type of offering will impact services requirements:

- A retail offering that requires kitchen services and preparation area will require a grease trap and fill point. This will need to be located in close proximity to the offering. An indicative location is noted in the adjacent diagram. This will require frequent truck movements.
- Opportunities to connect to existing kitchen will be explored, pending operator strategy
- Mechanical exhaust is required for kitchen service
- There may also be an increase in logistics movement to loading bay along public corridors.

Look and feel

- Retail spatial design will be complementary to the base building architectural intent.



SECTION 9 INFRASTRUCTURE REVIEW

INFRASTRUCTURE

9.1 BCA

Lot number DP 1175382

- Compliance with BCA 2022 regulations is mandatory.
- The assessment report does not evaluate adjoining existing buildings or their interface impacts.

Building Classification:

- Includes Class 7a, 7b, 8, and 9a.
- The façade and all components must use non-combustible construction materials, adhering to clauses C2D10 and C2D14 of the BCA.

Structural and Elements Fire Rating:

- The building exceeds an effective height of 25 m and necessitates sprinkler protection throughout for smoke hazard management.
- Maintains a minimum 6 m separation from adjoining buildings, with provisions for additional protection as per BCA Clause C4D5 where necessary.

Compartmentation:

- Fire compartment sizes and Fire Resistance Levels (FRLs) for patient care, ward areas, treatment areas and ancillary spaces are detailed on page 15.

Access and Egress:

- Each fire compartment must have at least two exits.
- For Class 9 buildings, no point on the floor should exceed 20 m from an exit or a point offering two exit directions, with one exit within 40 m maximum.
- In Class 9a patient care areas, points should not exceed 12 m from an exit or choice point, with one exit within 30 m. Alternate exits should be spaced between 9 and 45 m apart to ensure safe evacuation.

Service and Equipment:

- Fire hydrants, hose reels, pumps, and boosters must be positioned within 4 m of exits.
- Buildings over 25 m in height require sprinkler systems and a fire control centre.
- At least two emergency lifts must be provided.
- Fire and smoke control systems are necessary for atrium areas.

Construction in Bushfire Area:

- Deemed-to-satisfy provisions apply to Class 9 buildings designated for special fire protection purposes in bushfire-prone areas with a Bushfire Attack Level (BAL) not exceeding BAL 12.5. Bushfire consultant has noted the project has BAL 19 rating.
- Specification 43 compliance is required; a bushfire consultant must verify design documentation and construction adherence to these standards.

9.2 Structural Engineering

Structural Principles:

- Utilisation of the HI systematised design approach tailored to the preferred building form.
- Compliance with HI floor vibration requirements.
- Emphasis on efficiency and flexibility for future adaptations per HI guidelines.
- Introduction of an innovative structural system to enhance ESD outcomes.

Proposed Structural System:

- Foundation system to be finalized post geotechnical investigations, likely incorporating pad and piled footings for core and columns.
- Planned use of conventional jointed slab on grade, pending geotechnical results.
- Implementation of shear wall/core lateral system.
- Lightweight roof structure for plant rooms.
- Suspended floorplate options include post-tensioned concrete system, banded concrete slab, and various composite steel decks on an 8.4m square grid.

Existing Building Considerations:

- Investigation conducted on existing structures to assess suitability for refurbishment and connection.
- Ongoing risk of additional structural requirements due to potential deterioration or structural configuration changes during construction.
- Potential non-conformance with current earthquake codes may necessitate structural upgrades if modifications are made to existing buildings.

Green Star Targets and Cost Strategies:

- Structural influence on Green Star targets focuses on concrete and steel criteria.
- Recommendations aim to minimise structural costs while exploring alternatives to reduce the building's carbon footprint without compromising clinical or building performance requirements.

9.3 Civil Engineering

The civil principles developed during the concept phase specifically address issues including:

Green Star:

- Civil influence on Green Star targets is primarily through compliance with the EMI 5 Stormwater criteria, focusing on minimising peak stormwater flows and protecting receiving waters from pollutants. Credits can be earned by implementing storm water detention.

On-site Storm water Detention (OSD):

- OSD will be provided either as overground or underground storage based on site-specific controls.

Flooding:

- Extensive flood mapping by Albury City Council indicates the site is not within a flood planning area affected by the 100-Year ARI flood event, exempting it from flood planning objectives as per DCP Part 6 – Planning for Hazards.

Overland Flow Paths:

- In case of failure of the piped in-ground storm water system, overland flow paths must direct storm water away from buildings towards the site's boundary.
- Paths will accommodate 1% AEP storm flow.

Water Sensitive Urban Design (WSUD):

- WSUD principles include water reuse, natural pollutant removal systems, and minimising hard structures for storm water control and aesthetic enhancement.
- Open spaces should incorporate WSUD principles cautiously due to health risks posed by standing water.
- Council mandates WSUD incorporation in designs to limit pollutant entry into receiving waters, potentially involving rainwater and storm water harvesting, swale drainage, biofiltration, permeable paving, storm water detention, and mechanical filtration devices.

Bulk Earthworks:

- As the design progresses, bulk earthworks will be managed to balance cut and fill volumes and minimise impact on existing trees, adhering to geotechnical engineer specifications.

INFRASTRUCTURE

9.4 Mechanical Services

The mechanical services master plan outlines critical design principles for a large-scale hospital campus redevelopment. The report also addresses campus infrastructure requirements, passive design opportunities, and mechanical and medical gas service aspirations.

Design Principles

- Mechanical services must be efficient, resilient, maintainable and sustainable, reflecting broader project sustainability goals
- Heating systems must not use fossil fuels. Any required steam generation for sterilisation or humidification will be electrically powered
- Heat rejection plant selections should optimise energy performance and water consumption, supporting operational resilience in island mode scenarios
- Minimising heating and cooling loads through high-performance, air-tight building fabric specifications.

Key Project Risks:

- Lack of As-Built Information: Additional surveys and dilapidation reports will be necessary for refurbishment areas lacking comprehensive as-built data, excluding fully stripped out and replaced buildings or departments.
- Retention of Central Corridor Linkway: Services retained within the link require condition assessment due to design changes. A detailed survey was not previously conducted as removal and replacement were planned.
- Differences in Design Guides: Documented differences between VIC and NSW design guides and operational requirements necessitate stakeholder agreement on project design basis.

Existing Systems:

- Limited as-built data is available for the Albury site, including a central chilled water plant on the eastern side and localised heating systems in various buildings. The existing bulk oxygen tank follows a distribution path similar to the chilled water system. Some buildings use a mix of refrigerant-based HVAC system.

New Build Options

- Chilled Water, Heating Hot Water, Heat Rejection, Medical Gas, Building Management Systems, Pneumatic Tubes, Air Handling Units and Exhaust Fans.

Recommended Provisions for Future Stages:

- Future expansions, sizing of main boards, pipes and headers to accommodate future loads. Riser provision for new systems in cold shell spaces or vertical extensions and upgrading or changeover of central plant systems to support future stages without operational disruption.

9.5 Electrical, ICT, and Security Services

Electrification:

- The project entails full electrification of the new clinical services building and potential conversion of refurbished facilities to electric systems where feasible
- Existing services infrastructure with remaining useful life will be assessed during Schematic Design to ensure practicality.

The project has a number of risks that will need to be mitigated throughout future phases

Completeness of Existing Documentation:

- Medium risk due to limited available services information. Desk-top reviews and preliminary site investigations have been conducted to assess capacities and conditions of existing electrical and communications services.

In-Ground Services Survey Information:

- Medium risk associated with an 'in service' underground 22kV 185 mm 2 3C Cu XLPE supply extending from Hospital Chamber Substation 61-50124 to the external 500kVA kiosk substation near Keene Street. Survey results will inform considerations for the clinical services building and western road access excavation zone, alongside work staging.

Insufficient Electrical Supply:

- Low risk identified based on initial investigations indicating supply by a 22kV 185mm2 3C Cu XLPE underground cable. Further confirmation from Essential Energy is required to assess impacts of the new Clinical Services Building load on the network, with a preliminary enquiry submitted.

Kiosk Substation Location:

- Medium risk due to the 500kVA pad mount substation adjacent to Keene Street, serving other buildings outside the project scope. It is advised that new roadworks associated with the western road entry avoid interference with the existing substation and associated high voltage cabling and power pole.

Poor Power Quality:

- Low risk associated with existing hospital experiencing poor power quality, particularly harmonic distortion from electrical systems. Mitigation includes selecting new services and equipment to minimise harmonic distortion and connecting the main switchboards of the new clinical services building to Active Harmonic Filters.

9.6 Hydraulic and Fire services

Hydraulic key items:

Sanitary Drainage Systems

- Site connected to 150mm diameter Albury City Council utility sewer mains
- Discharge points at two locations to the East Street sewer main.
- Capacity of council's sewer system under assessment; Albury City Council noted concerns about available capacity.
- Preliminary assessments indicate existing infrastructure is near capacity.
- Likely need for upgrades due to increased load from development.

Water Services

- Access to Albury City Council utility water mains (150 -750 mm diameter) around the site.
- Drinking water supplied by 150mm main from Eastern Hill Reserve; additional 750 mm main for fire services.
- Existing site has a 150 mm diameter water ring main, planned to be diverted for construction.

Natural Gas Services

- Expected reduction in gas usage with demolition and electrification of new services.

Sanitary Drainage and Plumbing Systems

- New systems to collect sanitary plumbing stacks, discharge via gravity.
- Fully vented modified system with sanitary stacks and relief vents against columns.
- New systems for retail and CSSD areas, with external grease arrestor and cooling pit for treatment.
- Systems for rainfall areas including metal deck, suspended slab
- Non-trafficable areas to external rainwater tank for irrigation.

Key wet fire services items

- Existing 100 mm in-ground fire services ring main connected to 750 mm and 200 mm water mains.
- Fire services ring main has a booster assembly and dual pumps at East Street entrance. Feeds external and internal fire hydrants; sprinkler systems connected via 100 mm copper ring main.
- Redundant break tank adjacent to pump room, not connected to fire system.
- Two water storage tanks for sprinkler system, connected to 200mm water main.
- New fire services to meet current NCC, FRNSW, FRV, and sustainability requirements.
- Existing tanks proposed for reuse with new pumps.

INFRASTRUCTURE

9.7 ESD

The sustainability strategy has been developed following the Sustainability Visioning Workshop #1 facilitated by Climatewise Design on 20th June 2023, with design initiatives progressively developed during the Part 2 Design Program. Initiatives focus on the capital works scope for the project. There are a range of additional initiatives and opportunities that lie outside this boundary which might be delivered by the operator, and where relevant to the capital works these have also been referenced within.

The following sustainability themes have since been adopted to provide a framework through which these sustainability objectives might be achieved:

- Net Zero 2035 – working towards the NSW Government Net Zero targets
- Circular Materials – addressing supply chain & procurement, waste reduction, and Net Zero
- Sustainable Food System – increasing local food provenance, nutrient density, and Net Zero
- Green Infrastructure – enlisting and embedding Nature to support healing and mitigate climate risks
- Water Resilience – maximising water efficiency to reduce costs and support vibrant landscape

A suite of detailed sustainability initiatives are currently being developed which, when combined, position the AHCR and AWHS to be able to achieve these objectives and themes over time. These are each described in Section 6-15 of this report.

Sitting underneath the Albury Hospital Climate Action 2035 Strategy is the HI DGN-058 Environmentally Sustainable Design framework (Rev C) which is a required reporting deliverable. At the conclusion of Part 2 the project has 54 points confirmed (included in scope & commitments) and 34 points TBC. For commentary on the cost and risk of each initiative refer to the AHCR ESD Framework (ESD report found in Chapter 10) which functions as the working document for the initiatives described in this document.

9.8 Traffic Engineering

Analysis of the current concept design, prepared by Hassell in May 2024, indicates items such as site access, general vehicle circulation and servicing and waste disposal (noting no change from current operations) are acceptable.

The future parking demand estimate for the site is 1,182 spaces, an increase of 523 spaces over the current on-site supply. 400 new spaces (on - site) have been briefed to the design team.

Further refinement of the future on-site parking provision, relative to the use of on-street parking surrounding the site and vehicle management is required to be resolved through stakeholder discussions.

Other items which require resolution as the design progresses include:

- Confirmation of a preferred design for early and enabling works relating to potential modifications to the current loading dock access
- Refinement of the intersection geometry at the exit to the multi-storey car park, emergency department and internal access road.

9.9 Acoustic Engineering

ACOR Consultants Pty Ltd has undertaken an acoustic and vibration review for the proposed redevelopment of the Albury Hospital, located at 201 Borella Road, East Albury.

There are certain acoustic treatments and noise control measures that need to be considered with respect to their implementation and practicality in a healthcare environment. Cleanability, infection control, fibre-shedding, and potential ligature risks are all factors that need to be considered when selecting materials and equipment for installation in a healthcare facility.

In many cases, the functionality and practical requirements of a room will take precedence over the acoustic performance of the room, and as a result, the type of acoustic treatment that should be applied is compromised.

Preliminary acoustic and vibration design review and recommendations are provided in the Acoustic Concept Design Report to achieve the relevant acoustic and vibration criteria for this project.

Building services, including MRI equipment, will be further assessed in the next stages of project, and recommendations updated as necessary to ensure compliance.

It is anticipated that the proposed development will achieve the relevant noise and vibration criteria, provided the design recommendations are implemented.