FINLEY HOSPITAL, NSW

Murrumbidgee Local Health District Schematic Design Report March 2024



SCHEMATIC DESIGN REPORT

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We acknowledge that Finley Hospital sits on the land of the Yorta Yorta people whose culture and customs have nurtured, and continue to nurture this land. We pay our respects to elders past, present and emerging.



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Executive Summary

01_ EXECUTIVE SUMMARY

This schematic design report has been prepared by HDR on behalf of NSW Health Infrastructure (HI). It documents the outcome of schematic design studies and records the outputs of various meetings, workshops and consultations for the upgrade of the existing Finley Hospital. Key inputs have been received from HI, Murrumbidgee Local Health District (MLHD) and community representatives. Schematic development has been informed by the Finley Health Service Plan and Finley Hospital Functional Briefs (v3). Feasibility of the schematic design has been tested against current market rates and an extensive Value Management exercise undertaken to align the proposed scope with budget expectations.

Finley is a town with a population of 2,519 people located in the Riverina region of NSW approximately 140km west of Albury and approx 20km from the Murray River and Victorian border. It is claimed that the local Yorta Yorta First Nations people called the area "Carawatha" meaning "place of pines" and was then settled by Europeans in the 1840's with wheat the predominant crop. In 1935 construction commenced on the largest irrigation channel in Australia, the Mulwala Canal, which brought broader agricultural appeal to the area. The district now produces grain and wool as its main agricultural use and acts as an important service centre for the Berriquin irrigation area that surrounds it.

The hospital is located on the western edge of the Finley township and is comprised of the original 1960's single storey brick main hospital building set on flat landscaped grounds. A single storey staff accommodation building and a single storey Community Health building are sited to the south and west of the main hospital.

The previously endorsed masterplan identified a new hospital building to be constructed on the eastern portion of the site with the existing hospital to be demolished. Due to increasing market rates, the revised cost plan identified that the proposed masterplan would no longer meet budget expectations. To address this cost over-run, the project team developed options for a reduced scope; to either provide a new hospital building with a further reduced Schedule of Accommodation (SoA), to provide an extension to the existing hospital, or provide a refurbishment to the existing hospital. In consultation with HI, MLHD executive and the Executive User Group (EUG), it was determined that the greatest value for money would be to progress concept design based upon a combination of refurbishment and extension of the existing hospital.

The schematic design phase saw an extensive user group consultation process undertaken to workshop the planning of each department. Over a series of 3 rounds of workshops the planning for each department was developed with key stakeholders. This report presents the schematic design outcomes resulting from user consultation and technical / design inputs by the project design team.

Outcomes of the schematic design process include:

- Confirmation of the functional and clinical flows including those relating to public, clinical (staff and escorted patients) and logistics.
- Development of layouts that depict the relationships of rooms within the individual departments.
- Confirmation of room sizes and internal department room names, walls, doors and an indicative layout of key items of equipment.
- Development of the facades, finishes and key external spaces.
- Development of a landscaping strategy for the site.
- Development of a way finding strategy for internal and external areas of the new hospital.

General Arrangement Drawings at 1:200 scale have been endorsed by the MLHD.

Hospitals are significant public buildings where life changing events take place. Finley Hospital is a key public building within a small regional town and upgrades to this facility must serve the community as a facility the community can be proud of. During schematic design, the project team has engaged with community members, including local council, Local Health Advisory Committee and representatives of the Aboriginal Community. As the Finley Hospital upgrade project progresses through the subsequent design phases, HI, MLHD and the project team will continue to engage collaboratively with the local community to ensure collective ownership of what will be a significant public building.



01_ EXECUTIVE SUMMARY

Project Background

The NSW Government has committed \$25 million to the Finley Hospital upgrade as part of the \$500 million rural health boost. This will enhance the current service and facilities, ensuring healthcare services meet the needs of the community, including outlying areas, now and into the future.

Finley is a small community hospital with a Role Delineation Level 1-3 (RDL) and provides healthcare services to Berrigan Shire Local Government Area (LGA) and surrounds.

The existing hospital dates from 1962 and is aged and in poor condition with compliance and functionality issues. The infrastructure requires substantial upgrade or replacement to support the delivery of contemporary healthcare services.

The Health Services Plan (HSP) identifies a proposed service profile to meet the local community's healthcare needs to 2031 and beyond for the effective, efficient and sustainable delivery of appropriate healthcare services.

Clinical Services Scope

Finley Hospital currently provides 16 inpatient beds, a RDL 2 Emergency Department (ED), community health services, clinical / non-clinical support services and staff accommodation. Services include: acute inpatient medical and non-procedural surgical, sub-acute inpatients including palliative care, maintenance care and geriatrics, Community Health, Aboriginal Health, Mental Health and Drug & Alcohol, clinical support services and non clinical support services. A GP clinic is located adjacent to the hospital.

The HSP, developed by MLHD Planning Unit and informed by extensive stakeholder consultation, provides an outline of current and proposed future clinical services and non-clinical support services to be delivered at Finley Hospital.

The HSP confirms that Finley Hospital will remain at RDL 1-2 overall, however some changes are proposed to specific clinical services:

• Overnight inpatient care (RDL 1-2) for medical, rehabilitation

and palliative care patients. There will be enhancements in some specialties e.g. general medicine, endocrinology, immunology, infectious diseases, neurology, respiratory medicine, paediatric medicine

- Emergency care (RDL 2)
- A range of ambulatory, community health and mental health and drug and alcohol services (RDL 1-3)
- General X-Ray and a new ultrasound service (RDL 2)
- Pharmacy (RDL 1)
- Pathology (RDL 1).

The Site

Finley Hospital occupies 19,740m2 (1.974ha) bounded by Dawe Avenue to the north, Scoullar Street to the south, Diggers Park to the east and Finley Regional Care to the west which provides aged care services to the Finley area. The site contains the main hospital building, a standalone staff accommodation building and a community building within the generally flat site.

The current hospital building was constructed in 1962 with the staff accommodation and community building added in the 1980's. In 2018 a refurbished emergency department and inpatient beds were opened. The building has been partially updated and modernised over the years however currently does not meet the requirements for contemporary health care.

Connecting with Country

The project design team met with the local Aboriginal community to walk on Country and listen to stories of the history, flora and fauna of Finley. These learnings were built upon through research on the Yorta Yorta people and the unique environment of their ancestral home. The culmination of this contextual research led to overarching design principles that informed the design. These themes and design outcomes were presented back to the community representatives during schematic design.

Project Vision and Objective

A project visioning workshop was held on Tuesday 14 February 2023. The group assembled determined that the project vision for Finley Hospital is:

to the needs of our community"

The objectives of the Finley Hospital upgrade are to:

- the Finley Health Services Plan
- Finley and its surrounds
- the future
- functionality concerns

"The Finley 'Health Hub' is a contemporary health service, enhancing access to integrated services that are responsive

• Deliver and maintain the service capacity requirements defined within

• Deliver a health service that contributes and connects to the Finley Health Hub and is valued by the community

Strengthen health service integration with non-governmental organization (NGO), local health districts (LHD) and cross border service networks, providing better access to services for residents of

• Support the delivery of safe, high-quality, clinical services and contemporary models of care that are designed around the needs and experiences of consumers and providers

Achieve a clinically and culturally safe, welcoming and flexible adaptable environment in which to deliver and receive care into

Address existing facility condition, compliance and

Provide a pleasant work environment and staff amenities that shows workforce is valued, promotes a collaborative working environment and contributes to recruitment, attraction and retention of skilled staff

• Plan an operationally and financially sustainable health service.



Terms of Reference

Project Team 2.1



Project Director Health Infrastructure NSW



Local Health District Murrumbidgee LHD (MLHD)



Project Manager **Capital Insight**



Cost Planner MBM



Services and ESD Engineer GHD



Landscape Architect Site Image



Civil and Structure Engineers Tonkin



Geotechnical and Contamination JK Group



BCA Blackett Maguire + Goldsmith





Architect HDR



Urbis Planner



Fire Engineering

Arup

2.1 Project Team Schematic Design Phase

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- Manager Planning Unit
- Cluster Manager
- Facility Manager
- Change Manager
- Communications and Engagement Lead
- Capital Works Manager
- Redevelopment and Infrastructure Manager

Members

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HI Design Champion Ethos Urban

2.2 Methodology & User Engagement

A thorough consultation process has been undertaken with MLHD users through schematic design. An overview of key engagement activities is provided below. Project User Groups comprised of local and MLHD participants who contributed to the schematic planning of departments, through an iterative design process held across 3 user group session for each department.



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2.3 Documentation Review

State Government

- The Riverina Murray Regional Plan 2041 (2023)
- NSW State Design Review Panel
- Government Architect Connecting with Country Framework
- Design Guide for Health

NSW Health

- 20 Year Health Infrastructure Strategy, Realising our Vision for the Future Health System (2020)
- Future Health Guiding the Next Decade of Care in NSW 2022-2032 (2022)

Murrumbidgee Local Health District

- Exceptional rural healthcare: Healthier together. Care tailored to people's needs, Strategic Plan 2021-2026
- Strategic Asset Management Plan (2022)
- Finley Health Service Plan v2.1 (Aug 2022)







NSW Health 20-Year Health Infrastructure Strategy







Finley Health Service Plan

> August 2022 Version 2.0





Site Review

3.1 Site Location



Finley is located in the Riverina region of NSW approximately 20km north of the Murray River and the Victorian border. It is located approximately 200 kilometers south west of Wagga Wagga which has a regional airport giving access to most major cities. It is situated at the intersection of the Newell Highway and the Riverina Highway providing links to Tocumwal in the south, Jerilderie to the north, Berrigan to the east and Deniliquin to the west.

Finley Hospital is located on the western edge of the township accessed from Dawe Avenue at the north with Scoullar Street to the south providing service vehicle access. The site is bounded by Diggers Park at the east and Finley Aged Care to the west. To the south side of Scoullar St is a private GP clinic.



3.2 Site Summary

Site Character



The site character is defined by the single storey brick 1960's hospital building set within the lawns of the landscaped grounds. The site grounds contain a mix of mature trees including eucalypts, mixed rose gardens and formal lawn areas.

Key Plan
 View towards main entrance
 Back of house
 Rose gardens
 Emergency Vehicle porte cochere

3.2 Site Summary



Topography

The topography of the site is very flat and reflective of the topography of the region. The site sits at 108m above sea level with at grade access from the surrounding streets.

Vegetation

"Only a few remnant trees were identified on site - located on the council verge of Scoullar Street. The remaining area is planted out to various exotic species trees and a range of NSW and Australian Native species. Of some note are several large Lemon Scented Gums (Corymbia citriodora), Narrow leaf Iron Barks (Eucalyptus crebra) and several Aleppo Pine (Pinus Halepensis)" - Arboricultural Report.

The diagram above indicates the trees that have been assessed as high value and should be retained.

Climate

Finley has a semi arid climate; with cool winters and hot, dry summers.

Winters are cool to cold, with the mean maximum temperature falling to 13.0 °C in July, with a mean minimum of 4°C, and modest overcast periods on account of being exposed to the prevailing westerly winds.

By contrast, summers in Finley are hot and dry with a low relative humidity. Mean maximum temperature in January is 32°C and minimum of 16°C.



3.2 Site Summary

Site - Building Assets



Hospital

1960's Age Construction Brick / Metal roof Condition poor

No. 26 Dawe Avenue

3



1980's Age Construction Brick / Metal roof Condition poor

Staff Accommodation



1980's Age Construction Brick / Metal roof Condition poor

Community Health



Outbuildings

1960's Age Construction Brick / Metal roof Condition poor



Site plan highlighting current building assets

Finley Hospital — Schematic Design Report

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3.3 Site Investigations

A series of site investigations have been prepared to inform the schematic design. The following scope extracts are taken from the respective reports which are attached as appendices to be read in full.

Hazardous Building Materials Survey JK Environments

The survey was undertaken with the scope of work including the following:

- Review and summary of existing reports and registers;
- A detailed visual inspection of the existing building and structures;
- Documentation of inspection finds including the material type, condition, friability, photographic evidence and site location; and
- Preparation of a report presenting the results of the hazardous building materials survey.

Geotechnical Investigation JK Geotechnics

The purpose of the investigation was to obtain geotechnical information on the subsurface conditions at the borehole locations. Based on this JK Geotechnics provided comments and recommendations on site preparation and earthworks, excavation conditions and support, site classifications, footings, earthquake design, soil aggression, mine subsidence and pavement parameters.

Arboricultural Assessment

All trees were individually assessed and graded for their value, condition, life expectancy, significance within the environment and landscape; stem diameter, canopy coverage and other salient data was gathered and compiled. A conclusion on their individual retention value was made. A Preliminary Arboricultural Report was prepared for the purpose of assisting planning of the development and which specific trees have the highest significance and retention value.

Statement of Heritage Impact

The SOHI report outlined the significance of each of the structures, other heritage features or values impacted or potentially impacted by the project. There are no heritage impacts to the hospital as a consequence of an upgrade.

Detailed Site Investigation Report JK Environments

The DSI aims to further characterise the site and make an assessment of the soil contamination conditions, and inform the preparation of a Remediation Action Plan (RAP). The objectives of the DSI are to:

- Supplement the PSI data by completing the DSI, including investigation of the soils in accessible areas;
- Assess the potential risks posed by contamination to the receptors identified in the Conceptual Site Model (CSM);
- Provide a preliminary waste classification for off-site disposal of soil;
- Assess whether the site is suitable or can be made suitable for the proposed development (from a contamination viewpoint); and
- Assess whether further intrusive investigation and/or remediation is required.

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Development Proposal

4.1 Clinical Service Planning/Service Statement

Finley Hospital provides 16 inpatient beds, a RDL 2 emergency department, community health services, clinical / non-clinical support services and staff accommodation. Services include: acute inpatient medical and non-procedural surgical; sub-acute inpatients including palliative care, maintenance care and geriatrics; community health, Aboriginal health, mental health and drug & alcohol; general Xray and pathology collection.

The Finley Health Service Plan v2.3 (HSP) outlines the local and districtwide factors that influence the demand for healthcare services at Finley Hospital, the proposed service profile to respond to that need, the projected activity that it is anticipated to 2031 and beyond, and the consequent asset infrastructure that will be required. The HSP confirms that the Finley Hospital will remain at RDL 1-2 overall, however some changes are proposed to specific clinical services:

- overnight inpatient care (RDL 1-2) for medical, rehabilitation and palliative care patients. There will be enhancements in some specialties e.g. general medicine, endocrinology, immunology, infectious diseases, neurology, respiratory medicine, paediatric medicine
- emergency care (RDL 2)
- a range of ambulatory, community health and mental health and drug and alcohol services (RDL 1-3)
- General X-Ray and a new ultrasound service (RDL 2)
- Pharmacy (RDL 1)
- Pathology (RDL 1).

The HSP analysis indicates that activity will remain relatively stable for emergency care to 2036. Overall, inpatient activity is proposed to decline, notwithstanding a modest uplift in rehabilitation service, while a nearly 50% increase in ambulatory care and community health activity is projected. The HSP also identifies the need for key worker accommodation for up to 5 personnel.

The Finley Hospital infrastructure requirements to support the projected activity are outlined in the following table.

Department	Existing Points of Care	HSP Proposed Points of Care 2036 Projection
	1 Resus	1 Resus
Emergency	2 Acute Bays	2 Acute Bays
	1 Consult	1 Consult / Interview
Innational Unit	16 Pada	10 Acute Beds
inpatient Onit	To beus	4 Rehabilitation Beds
		1 X-ray
Medical	1 X-ray	1 OPG
Imaging	i A-i dy	1 Ultrasound
		1 Mobile X-ray
Ambulatory		6 Consult/Interview/Virtual Care
Care		
KWA	5 Studios	5 Studios

Note: New Key Worker Accommodation (KWA) will be provided on site via the Key Worker Accommodation Program. It is therefore not within the Finley Hospital Upgrade project scope, but has been accommodated within the Finley Master Plan.

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4.2 Design Principles



Adjacencies & Flows

The driving principle for Finley Hospital Redevelopment is to provide improved flows and functional relationships of the acute zone.



New Face to Finley Hospital

Finley Hospital has been operating out of the current facility since the 1960's. Although minor upgrades have been undertaken during this time, the hospital building appearance is in need of improvement. Whilst achieving clinical objectives of the HSP is the priority, the need to deliver a modernised and visually refreshed facility is important. This is largely achieved by providing an upgraded front of house and main entrance which will benefit all users.



Engage with Landscape

The hospital is fortunate to offer established landscaping to the site with opportunity for outlook to green spaces from most aspects. Extensions to the building will seek to enhance the users experience by integrating with the existing landscape and provide opportunity for the building to open outward, bringing in daylight and providing an outlook from a building which in its current form is heavily internalised.

4.2 Design Principles - Connecting with Country



Healthy Country

Yorta Yorta people relied on the health of their environment to sustain them and keep them well and knew that a healthy Country meant healthy people.

Finely Hospital should be a place of health and wellbeing, harnessing the health benefits of human connections to landscapes.

Being on Country, in the open air, is a path to wellbeing and recovery.



Woven Connections

Finley is a small town with many connections ranging from physical links to service networks and shared cultural histories. By creating spaces where indigenous cultures can be shared with the wider community, we can showcase narratives and invite all people to learn from the Yorta Yorta peoples living cultural history. Through the refurbishment of Finley Hospital, we seek to embrace and enhance the local cultural and environmental connections that make the town unique.



Welcome, Friend

Gulpa gaka, anganya.

The entry to the hospital provides the perfect canvas for embracing Country, shared histories and cultural traditions, so that the hospital becomes a place where indigenous and non-indigenous peoples can come together under a united, shared identity. Everyone is welcome, everyone is safe and everyone belongs.

4.3 Functional Planning

Response to Model of Care

The schematic design planning for each department worked from first principles, commencing with a clear zoning diagram then proceeding to more detailed planning that responded to the Model of Care, design principles and internal functional relationships set out in the Functional Brief. This response includes:

- Creation of a more integrated acute zone to achieve enhanced clinical adjacencies and efficient circulation
- Implementation of a patient-centred model of care by focusing on the needs of patients and bringing skilled staff together around the needs of the patient wherever possible, in a supportive and inclusive patient care environment;
- Careful separation of public and clinical areas, promoting security and patient privacy;
- Relocation of the existing Medical Imaging (MI) department to provide the required direct urgent bed access from the ED while maintaining a separate public/patient entry from the new Front of House (FOH);
- Replanning of the existing ED to achieve greater functionality and staff observation of patients;
- Extension of the existing Inpatient Unit (IPU) to meet the requirements of the functional brief;
- Creation of a welcoming and patient-focussed environment through planning and sensitive interior design of patient care units e.g. by taking advantage of opportunities to create appropriate high-quality interior spaces including age-appropriate graphics and artworks;
- Promoting a less stressful patient experience by use of intuitive way finding from the new Entry and FOH through to ED, MI and IPU; and
- Maximizing opportunities for natural light and views in the extension of the IPU for the benefit of patients, visitors and staff.

Following are two examples of how the schematic design was developed with the PUGs in response to the Model of Care.

Example 1: Separation of Public & Bed Flows to ED & MI

Schematic design commenced by reviewing the clinical adjacencies and connections between departments as agreed during the Concept Design phase and reassessed this in terms of key functional relationships and circulation flows for public, clinical (i.e. staff and escorted patients) and existing logistics. Internal and intra-departmental flows and relationships were carefully considered in close and detailed consultation with the PUGs.

Blue (public) and red (bed/staff assisted patient flow) entry points into ED and MI have been implemented to provide the required separation of flows within the existing building. Ready access from ED to MI has been achieved through the existing corridor within the IPU. Direct access for public and visitors to MI is via the new FOH and Reception area.



Separation of Public (blue) and Clinical (Red) flows in ED and Medical Imaging

4.3 Functional Planning

Example 2: Configuration of the New Patient Bedrooms

The configuration of patient bedrooms in the IPU is based on the following:

- The new patient rooms are placed on the perimeter of the extension with access to natural light to provide a therapeutic environment;
- Glazing has been maximized to allow natural light into the existing IPU;
- The bedrooms are in close proximity and observation from the main Staff Station, minimising the travel distance for transferring and nursing this patient cohort.

Room Numbering System

For the purpose of documentation on the Finley Hospital upgrade, the following room numbering system has been adopted in the architectural drawings, Room Data Sheets (RDS), SoA as well as other schedules and documents:

Department	Room Numbering System					
Inpatient Unit	Typically the room numbers include project, department, and a four dig identification number.					



Zonal Plan Showing Staff Zone & Bedroom Configuration

	Example
e the it room	FHSR.IPU.2001 (Finley Hospital upgrade, Inpatient Unit, Room 2001)

4.4 Master Plan

The masterplan for this upgrade is focused on providing upgrades to the existing building and extension to priority spaces within the limitations of the budget. The scope of work consists of:

- New Front of House (FoH) which consists of a small extension to the existing building footprint.
- Replan of triage and staff station to achieve suitable flows between ED/IPU and FoH.
- New standard isolation room added to ED.
- New Medical Imaging
- Extension to IPU to provide 6 new beds.
- Light upgrade to staff room and central corridor.
- Upgraded and expanded comms room.
- New roof sheeting and sarking to the main hospital roof.
- Essential services upgrades.

Key

Site planning makes provision for key worker accommodation to be provided as an independent scope of work by the health infrastructure KWA program.



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Imaging

IPU

FOH

Admin



4.5 Infrastructure Master Plan

Key infrastructure mains servicing the existing facility have been identified on the plan adjacent.

With the building scope limited to partial refurbishment and a minor extension to IPU and FOH, there will be minimal impact of services mains entering the site allowing all site connections to remain in current locations.

The electricity supply authority for Finley is Essential Energy (EE). There is a single span of overhead high voltage (HV) supply from Scoullar Street, along an apparent easement for a future road, to a pole mounted substation that supplies the site. From the pole mounted substation, a low voltage (LV) underground service supplies a private electricity pillar within the site boundary. From the pillar, underground consumers mains supply an external site main switchboard (MSB) located at the eastern end of the building adjacent to the maintenance workshop. This arrangement is likely to be retained. There is an existing site main switchboard (MSB) and generator located to the eastern end of the facility adjacent the maintenance workshop.

There is Telstra and NBN lead-in cabling servicing the site from separate pits on the southern side of Dawe Avenue which, as advised by MLHD is adequate for the current function of the facility.

The Hospital has three incoming mains water supplies: filtered water (Ø100), raw water (Ø80), and fire water (Ø100) supply. All water supplies come from Dawe Avenue. These incoming mains will be retained, and upgrade of pipework is not required.



Key Site Services



4.6 Schedule of Accommodation (Design Vs Brief)

The Summary SoA below is based on the latest revisions of the SoA VM1.0 issued by Capital Insight (CI) as Excel files, and includes changes and departures made during the schematic design consultation process.

			SC	CHEMATIC	DESIGN – S	SUMMARY	OF AREAS			
No	Department Name	Room Name	Briefed Quantity	Net Briefed Area (m ²) Excluding circulation	Gross Briefed Area (m ²) Including circulation (25%)	SD Designed Quantity	SD Designed Area excluding circulation	SD Designed Area Including circulation (25%)	Diff.	Comments
1	Front of House & Staff Areas	Total		95	118.8		66	110	-8.8	
	1	Airlock Entry	1	10.0		=	=			
		Reception	1	15.0		=	=			
		Store - Files	1	10.0		=	=			
		Toilet - Patient	1	4.0		=	=			
		Toilet - Accessible	1	6.0		=	=			
		Waiting	1	35.0		=	22			
		Staff Dining Room	1	15.0		=	41			Existing room area exceeds area noted in SoA.
2	Emergency Department	Total		102.5	135.3		105	164	+28.7	Circulation increased to provide corridor link between ED/FoH.
	,	Airlock - Ambulance Entry	1	10.0	13.2	0	0			Retained existing.
		Triage Assessment Room, Emergency - Type 1	1	13.0	17.2	=	=			
		Interview Room	1	14.0	18.5	=	=			
		Patient Bay, Emergency - Resuscitation	2	16.0	42.2	0	0			Retained existing.
		Patient Room, Emergency - Acute Treatment Special	1	15.0	19.8	=	18			Alteration to existing ED Consult Room.
		Ensuite - Back-to-Back	2	5.0	13.2	1	6			1 x Ensuite for Enclosed Patient Room, Emergency - Acute Treatment Special. Existing Accessible WC to remain in use.
		Treatment Room	0	14	0	1	29			Existing Treatment Room requires alteration to allow for new corridor link between ED/FoH.
		Bay - Resuscitation Trolley	1	1.5	2.0	0	о			Retained existing.
		Bay - Pathology Point of Care Testing	1	3.0	4.0	0	0			Retained existing.
		Bay - Mobile Equipment	1	4.0	5.3	1	3			
		Staff Write-Up	-	-	-	1	11			ED scope adjusted during Schematic Design to convert existing ED Sub Wait to Staff Write-Up.

	SCHEMATIC DESIGN – SUMMARY OF AREAS									
No	Department Name	Room Name	Briefed Quantity	Net Briefed Area (m²) Excluding circulation	Gross Briefed Area (m ²) Including circulation (25%)	SD Designed Quantity	SD Designed Area excluding circulation	SD Designed Area Including circulation (25%)	Diff.	Comments
3	Inpatient Unit	Total		374	493.7		107	143	-350.7	
		1 Bed Room - Inboard Ensuite, Type 1	5	16.0		0	0			
		1 Bed Room - Special	1	18.0		0	0			1 Bed Special replaced with 2 Bed Room.
		2 Bed Room - Inboard Ensuite	2	29.0		0	0			
		2 Bed Room - Inboard Ensuite	2	29.0		3	87			1 Bed Special replaced with 2 Bed Room.
		Ensuite - Inboard - Alternative 1	10	5.0		3	15			Number of ensuite to suit
		Lounge - Patient / Family	1	15.0		0	0			
		Staff Station	1	14.0		=	14			Existing Staff Station requires alteration to allow for new corridor link between ED/FoH.
		Office - Clinical Workroom	1	14.0		0	0			Area for Office - Clinical Workroom removed during Schematic Design.
		Clean Store / Medication Room	1	20.0		=	11			Existing decanted IPU Bedroom to be utilised for additional Consumable Storage.
		Dirty Utility	1	12.0		0	0			
		Store - Equipment	1	20.0		0	0			
		Store - General	1	9.0		0	0			
		Bay - Handwash, Type B	2	1.0		0	0			
		Bay - Linen	1	2.0		0	0			
		Bay - Mobile Equipment	1	2.0		0	0			
5	Medical Imaging	Total		75	99		88	114	+15	
		Change Cubicle – Accessible	1	4.0		=	5			Additional area to allow for dual access.
		Toilet - Accessible	1	6.0		=	8			Additional area to allow for dual access.
		General X-Ray Room	1	41.0		=	=			
		Ultrasound Room	1	14.0		=	=			
		Ultrasound Reprocessing	1	2.0		=	7			Additional area to allow for imaging equipment.
		Bay - Mobile Equipment	1	3.0		=	7			Additional area to allow for imaging equipment.
		Office - Write Up, 5m2	1	5.0		=	7			Additional area to allow to be enclosed.
6	Services	Total		0			20		+20	Comms Room expansion / upgrade.
7	Public Corridor	Total		0			269		+269	Corridor light refurbishment.

4.7 Variances From CD/AusHFGs

Following the completion of the concept design phase, a series of Project User Group (PUG) meetings were held during schematic design at which the following key planning changes occurred:

- It was determined that a direct corridor link between the FOH and ED was required. As a result, the existing IPU Staff Support and existing ED Treatment Room required alterations to allow for access through.
- A 2 bed-room was added to the IPU extension to replace the briefed 1 bed-room, special in order to achieve 14 operational beds for the IPU Department.

The Finley Hospital Upgrade project utilises the HI dRofus database system to manage the inputs of the functional design requirements for building fabric, fixture, equipment and services. The database has been established using the AusHFG standard components as templates for room content. Where a relevant standard component does not exist within the AusHFG, appropriate benchmark projects have been referenced to inform the design.

During the schematic design process, the PUGs requested changes and additions to FFE as well as services provisions which vary from the standard AusHFGs. This information has been recorded in dRofus as design changes/ departures and will be further discussed and confirmed in the Detailed Design (DD) phase.

FX

4.8 Schematic Design

Schematic design commenced by confirming the clinical adjacencies agreed during the Concept Design phase and reassessed this in terms of key functional relationships and circulation flows for public, clinical (i.e. staff and escorted patients) and logistics. This phase was undertaken in close and detailed consultation with the PUG over several rounds of meetings for the overall planning of the Finley Hospital upgrade as well as for each department. The MLHD Project Team, Health Infrastructure's Project Director, the Project Manager and the Architects participated in the user group process.

Key overall outcomes and deliverables from the schematic design phase include:

- Discussion and confirmation of the functional and clinical flows including those relating to public, clinical (staff and escorted patients) and logistics;
- Development of layouts that depict the relationships of rooms within the individual as well as adjacent departments as derived from the information within the Functional Brief that was further informed by consultation during the PUG meetings. A General Arrangement Plan at 1:200 scale has been endorsed by the MLHD;
- Confirmation of room sizes and internal department room names, walls, doors and an indicative layout of key items of equipment that will be developed further during the next phase of the project;
- Development of a landscaping strategy around the upgrade;
- Development of a way finding strategy for internal and external areas of the upgrade; and
- An outline of engineering strategies.

Following is a summary of the schematic design phase for each department within the Finley Hospital Upgrade.



MARCH 2024

FX

4.8 Schematic Design

Overall Planning

Summary of schematic design stage

- The Triage was moved further south to provide greater visibility of the Main Entry Airlock and provide better access for public and visitors;
- Access to MI for public and visitors was relocated over the course of the schematic design phase from the eastern end of the unit to the northern wall, thereby providing more direct access from the Front of House with greater supervision from the main Reception;
- Access from ED to MI shifted over the course of schematic design. Bed flow from ED now accesses MI via the existing IPU corridor;
- The 1-Bed Special briefed for the IPU extension was converted into a 2-Bedroom along the southern façade. The new patient lounge in the IPU extension was deleted.





Overall Schematic Design Endorsed Layout

Zonal Plan for the Finley Hospital upgrade

4.8 Schematic Design

Emergency Department & Inpatient Unit

Summary of schematic design stage

- Walk-in patients to the ED will arrive at the Reception/Triage which is visible from the hospital main entry airlock. The Triage function consists of: patient acuity assessment, level of urgency assessment, provision of basic first aid if required, and referral to the appropriate area for treatment. The Triage has direct view of the Main Entry airlock, Reception as well as the Main Waiting area in the FOH;
- The existing Ambulance access road and parking have been retained with separate discreet access into ED;
- The Enclosed Patient Acute bay was provided in the existing consult space along the façade. The Patient Ensuite off the enclosed bay was accommodated in the existing Beverage Bay area;
- The open Patient Acute Bay was replaced by an Interview Room in close proximity to Triage and the FOH;
- The existing sub-wait space was utilized as a Staff Write Up space for greater observation of the Patient Acute Enclosed and Resuscitation Bays;
- A large Treatment Room with 2 bed / chair spaces was added close to the ED entry off the FOH able to undertake minor procedures as required;
- The existing Staff Station in the IPU was retained together with the existing Staff WC and Property room. The new Clean Utility and Medication room now sits behind the staff station allowing direct access;
- The 1-Bed Special briefed for the IPU extension was converted into a 2-Bedroom along the southern façade. The new patient lounge in the IPU extension was deleted.



Zonal Plan for the Finley Hospital upgrade



4.8 Schematic Design

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	18/10/2023	Triage to be rotated in order to achieve a direct link to the reception. Management of mental health patients within the facility would be done operationally. It was noted that the clean utility could be set up as a staff refuge in the event of an incident.	IPU Office – Clinical Workroom not required.
SD PUG#2	08/11/2023	Concerns raised that the open acute bay is enclosed by walls making the patient bays disconnected from each other. It was suggested that the existing Consult Room could be converted to the Isolation Room. The triage was rotated and moved closer to the rest of the ED. Layout and orientation of the 1-Bed Special was to be further reviewed.	New ED Staff Write Up to be provided in ED.
SD PUG#3 (IPU extension only)	29/11/2023	MFD bay to be rotated to be accessed off corridor rather than behind Staff Station. The double door connecting the IPU extension and the existing IPU was confirmed to be removed. Location of the Staff WC to be further reviewed.	nil
SD PUG#4 (ED & IPU Support)	06/12/2024	Direct corridor link provided from FoH to ED to avoid bringing ED patients who present to FoH via the IPU. Maintain existing IPU Staff Station. Existing Huddle Room was noted as not used and the area was to be allocated to the Interview Room. Existing Staff WC and Property Room to be retained. The existing 2 Bed Room Ward 4A & 4B can only function as a 1 bed room, this room is to become the 1 Bed, Special in place of the proposed 1 Bed, Special in the extension. Additional 2 Bed Room to be provided in the IPU Extension. Based on what was presented and the agreed changes, the ED Floor Plan was preferred by the users.	New Interview Room to be provided in ED. 1 x new Ensuite required and existing Accessible WC retained. 1 Bed Special replaced with 2 Bed Room.

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA



Endorsed Schematic Design Plan for ED & IPU



FX

4.8 Schematic Design

Medical Imaging

Summary of schematic design stage

- The Files Store in the FOH was relocated to allow for greater efficiency in the planning of MI;
- The X-Ray and Ultrasound Room locations were swapped to allow for direct public and visitor access into MI from FOH;
- The Ultrasound Reprocessing space and the Mobile Equipment Bay were confirmed to not be co-located.

Summary of unresolved issues to be addressed in next phase.

- Review whether to allow for provision of CR Printer and Digital Imaging Printer, and whether they would be transferred or retrofitted.
- Review cost of new mobile X-ray machine.



Zonal Plan for Finley Medical Imaging





Endorsed Schematic Design for Medical Imaging



Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

FC

comes	Major departures from SoA
of internal planning m replanning the File tegrating it into the	Additional Bay – Bed Hold was requested but not ultimately delivered.
and egress for staff safety. e Equipment Bay and om should not be co-	
nd egress location from as it opens out into the nat the egress open out and not out into ED. Y Hospital will not include	
or X-Ray room with dual	
ay – Bed Hold could be ction when not used as a	
ting that dual staff egress ound Room.	
ect access from Change	
ind room to WC was	
d in SD PUG#1 was	
eferred to be an out private conversations.	
Change Room was	
ted and the agreed ging Floor Plan was	

4.8 Schematic Design

Front of House

Summary of schematic design stage

- During the schematic design phase, several options were provided for the configuration of the Reception and Waiting areas. The key drivers behind the options were observation of the Main Entry Airlock from Reception as well as achieving the required access to the ED Triage, and MI for public and visitors, optimising supervision of waiting areas from reception and triage to eliminate blind spots.
- The Files Store was relocated to the FOH area to allow for greater functionality of the Medical Imaging Layout.

Summary of unresolved issues to be addressed in next phase.

• FFE review to determine whether small safe for Store-File to be a transfer or new item.



Zonal Plan for Finley FoH





Endorsed Schematic Design for FoH

SD PUG	Date	Key Outcomes	Major departures from SoA
SD PUG#1	DPUG#1 26/10/2023 The FoH and reception were presented and accepted by the user group. Reception joinery to provide space for 2 workstations & an accessible counter. The user group confirmed that the number of seats provided in the waiting area was acceptable.		Nil
SD PUG#2	22/11/2023	Potential additional 9sqm Facility Manager's office was discussed to be reviewed and confirmed outside of the meeting.	Nil
SD PUG#3	SD PUG#3 29/11/2023 Concerns raised having separated waiting area to the right-hand side of the reception as there was no oversight from the Triage to this space after hours. It was confirmed that Security was comfortable with this space if there was good CCTV coverage. Based on what was presented and the agreed changes, the Front of House floor plan was endorsed in principle.		Nil

Summary of key outcomes from the PUG process incorporated into the planning including any major departures from the SoA

4.9 Infection Control Measures

The overarching infection control principles for the Finley Hospital upgrade will provide a physical environment appropriate for the delivery of safe, high quality, patient-centred care. This will support service performance in accordance with the highest standards of safety and quality.

Infection prevention and control is a guiding principle behind all design decisions, especially those related to key clinical workflows, the size, collocations and detailed layout of patient care environments, including treatment areas, patient bedrooms and staff work areas. It is also embedded in the choice of materials and finishes, throughout the upgrade.

Within the context of the built environment, the following components contribute to effective infection prevention and control, and are addressed in the schematic design solution:

- Review of the number and locations of hand hygiene facilities in accordance with the Functional Brief and the AHFGs;
- Effective upgrades of air handling, ventilation and water systems see Services reports in relevant Appendix;
- Additional support for linen handling protocols;
- Storage of supplies, equipment and other items in appropriate locations and facilities;
- Waste management processes;
- Careful selection, detailing and associated facility maintenance regimes for all internal surface finishes.

The design responds to the requirements of the AHFGs Part D Infection Prevention and Control. These requirements have been monitored within all PUG meetings, in the design of standard rooms, and as part of the design for all clinical spaces in the Finley Hospital upgrade, throughout the schematic design phase. This will continue to be monitored during the upcoming DD phase.

Areas that are not in scope have not been considered as part of this project in relation to infection control compliance.

FSS

4.10 Staging Plans

Stage 1 IPU Extension, Comms Room & Part **ED** Alteration

Construct new IPU extension. IPU Ward 3 to serve as a construction buffer to the existing IPU and will be offline during this stage. The IPU extension & Ward 3 becomes operational following Stage 1 completion. Replan portion of existing ED. Upgrade and expansion of existing Comms Room.



Department / Room / Number	Comment	Temporary or Permanent	
IPU – Ward 3 Bed Room (1120)	Reduced IPU bed capacity.	Temporary – Stage 1	
IPU – Ward 3 Ensuite (1122)			
ED – Consult (1101)	Bed/Chair to be added to existing ED Resus. Privacy Curtain & Oxygen required.	Temporary – Stage 1	
ED - Beverage Bay (1103)	No longer required. Existing trolleys and fridge to be	Permanent	
	relocated to ED Resus or ED Treatment Room.		
ED - Sub Wait (1134)	Relocated to Main Wait.	Permanent	
Admin – Safe Room (2120)	No longer required.	Permanent	
Admin – Store (2188)	No longer required.	Permanent	

Stage 2 Fitout of Temporary Main Entry

With the new IPU extension &Ward 3 operating, the existing IPU Verandah and Ward 12, 13 & 14 will be fitout to temporarily accommodate the Main Entry, FoH, ED Triage and Administration whilst the new Main Entry is under construction during Stage 3. A temporary footpath to the existing carpark will be required and is intended to be absorbed into the landscaping during Stage 3 once it is no longer required.

List of rooms impacted:

Department / Room / Number	Comment	Temporary or Permanent	
IPU - Verandah (2193)	Converted to temporary Main Entry - FoH & Wait. Existing external window to be replaced with external door.	Temporary - Stage 2 & 3	
IPU - Ward 12 (2177)	Converted to temporary ED Triage. Adjoining Ensuite to remain for patient use.	Temporary - Stage 2 & 3	
IPU - Ward 13 (2178)	Converted to temporary public corridor connecting temporary FoH to rest of hospital. Adjoining Ensuite to remain for public use.	Temporary - Stage 2 & 3	
IPU - Ward 14 (2181)	Converted to temporary Admin Office. Adjoining Ensuite to remain for staff use.	Temporary - Stage 2 & 3	

FRONT OF HOUSE

INPATIENT UNIT

SERVICES

DEPARTMENT LEGEND

CIRCULATION - PUBLIC

CIRCULATION - STAFF

EMERGENCY DEPARTMENT

PUBLIC FLOW

ADMINISTRATION





4.10 Staging Plans

Stage 3

New FoH, Imaging, Part ED/ IPU Alteration & Landscaping

Replan to portion of existing ED and IPU to create new corridor link to connect new FoH to existing ED. Works to ED/IPU is to be prioritised during this stage to minimise disruption to the hospital operation. Construct new Main Entry, FoH & MI. Followed by completion of landscaping works.



List of rooms impacted:

Department / Room / Number	Comment	Temporary or Permanent
FoH - Airlock Entry (1132)	FoH - Airlock Entry (1132) Temporary FoH to be used until new Airlock is complete.	
FoH - Wait (1130)	Temporary FoH to be used until new Main Wait is complete	Temporary – Stage 3
FoH - Reception Admin (1117)	Temporary FoH to be used until new Reception is complete	Temporary – Stage 3
ED - Triage (1135)	Temporary ED Triage to be used	Temporary – Stage 3
ED - 2 x Bed Treatment Room	1 x bed / chair added to existing ED Resus.	Temporary – Stage 3
(1104)	1 x bed in Enclosed Patient Room to be utilised	
IPU - Drug Room / Clean Utility (1109)	Relocated to Office Nurse Manager (1128)	Temporary – Stage 3
IPU - Office Nurse Manager (1128)	Temporary Drug Room / Clean Utility (1109) until new Clean Uitlity is complete.	Temporary – Stage 3
IPU - Staff Station (1115)	Partly impacted, able to remain in use.	Temporary – Stage 3
IPU - Toilet Staff (1111)	Partly impacted, able to remain in use with existing access via	Temporary – Stage 3
IPU - Property Staff (1116)	Huddle Room to be mintained until new access is created.	
IPU - Storage Linen (2201)	Existing IPU Linen Cupboards (1136/1137) in main corridor sufficient. Current shelving type is non-compliant - MLHD responsible for upgrades.	Permanent
IPU - Store Room (2166)	Decanted IPU Ward 11 (2174) available to use as Store Room.	Permanent
IPU - Kitchenette (2165)	No longer required, not in scope to relocate.	Permanent
IPU - Toilet Staff (2170)	Staff to use alternative existing WC's in IPU, not in scope to relocate.	Permanent
IPU - Ward 8 Bed Room (2168)	Relocated to New IPU extension.	Permanent
IPU - Ward 8 & 9 Ensuite (2169)		
IPU - Ward 9 Bed Room (2171)		
IPU - Ward 10 Bed Room (2172)		
IPU - Ward 10 Ensuite (2161)		



4.10 Staging Plans



Department / Room / Number	Comment	Temporary or Permanent	
ED / IPU - Corridor	Access blocked. Temporary access to ED via ED Treatment Room.	Temporary - Stage 4	
ED - Treatment Room (1104)	Remains in use.	Temporary - Stage 4	
IPU - Dirty Utility (1108)	IPU Pan Room (2155) to be utilised.	Temporary - Stage 4	
IPU - Office Nurse Manager (1128)	To be used to provide construction access.	Temporary - Stage 4	

Department / Room / Number / Room / Number	Comment	Temporary or Permanent
IPU - Staff Dining Room (2121)	Relocated to existing Meeting Room (2150) with existing Beverage Bay facilities.	Temporary - Stage 5
Main Corridor	Works to be isolated as much as possible, requires co- ordination between the contractor and users.	Temporary - Stage 5





Architectural Design

5.1 BIM Management Plan

The BIM Management section highlights the Design BIM Execution Plan, compliance with project requirements, and collaboration procedures. Collaboration involves regular BIM coordination meetings, resolving clashes, and maintaining model quality. Modelling requirements include establishing a model geo-reference point, discipline modelling standards, and quality control.

Specific uses of BIM aligned with HI Project Parts are detailed, and coordination procedures emphasize automated conflict checking, clash detection, and setting tolerances for clash tests during different project stages. The document also emphasizes the importance of regularly updating models and adhering to sharing protocols.

Roles and responsibilities for producing BIM documentation are outlined based on the NATSPEC National BIM Guide. This includes roles like Project Manager, BIM Manager, Lead BIM Coordinator, and various team roles responsible for modelling, reviewing, and coordinating BIM activities.

Overall, the document outlines the comprehensive approach to BIM implementation, roles and responsibilities, procurement, and coordination procedures for Health Infrastructure Projects. The collaborative information management strategy is summarized in Figure 1 below.

To facilitate Collaborative Information Management and Resources approach to sharing information, a Common Data Environment (CDE) will be implemented for the project and shall be used by all disciplines engaged on the project. The objective of the CDE is to provide a central repository (single data source) for all base CAD and BIM data to provide security and version control of that base data.

All team members will sign up for "BIM 360" (B360D) to be able to gain access to the CDE. Once an account has been created and access to the project has been granted, models have to be uploaded to B360D (WIP) to provide access to all team members for the purposes of communication and collaboration (Shared).

The online document management system "Aconex" will be used by all disciplines engaged on the project. When uploading documents onto Aconex, Consultants are to ensure all files are uploaded in accordance with the naming conventions.

It is required that formal and informal files be transferred utilizing Aconex. Models are being hosted on B360D, Navisworks and IFC file types must be transmitted through the Aconex platform. All file types, including Revit are to be uploaded to Aconex at the end of each package delivery milestones (Published; Archived).

The administration for Aconex will be managed by the Project Manager (PM). Likewise, general correspondence relating to actions or project information will be made within Aconex.



Figure 1 - Workflow for Communication and Collaboration



5.2 Conceptual Framework

Priority Upgrades

Masterplan and scope development during concept design has shown that the project funding cannot deliver all objectives of the HSP. A process of testing scope options has been undertaken to understand the priority upgrade areas that can be pursued to maximise HSP objectives. These priorities have been the fundamental driver for the design.

New Face

Finley Hospital has been operating out of the current facility since the 1960's. Although minor upgrades have been undertaken during this time, the hospital building appearance is in need of improvement. Whilst achieving clinical objectives of the HSP is the priority, the need to deliver a modernised and visually refreshed facility is important. This is largely achieved by providing an upgraded front of house and main entrance which will benefit all users.

Site Context & Landscape

The hospital is fortunate to offer established landscaping to the site with opportunity for outlook to green spaces from most aspects. Extensions to the building will seek to enhance the users experience by integrating with the existing landscape and provide opportunity for the building to open outward, bringing in daylight and providing an outlook from a building which is heavily internalised.

Staging

Staging of the works is a key consideration in the design particularly as much of the work is internal refurbishment. The design allows for works to be portioned into stages allowing for key services to be decanted and provided in temporary locations minimising disruption to operation of the facility.

Future Expansion

As the scope of works is not delivering the full HSP, a key driver in the planning is to facilitate suitable future expansion. The current plan will leave multiple vacant areas within the hospital building suitable for refurbishment as ambulatory care in the future. Future extensions to the ED and IPU can also be accommodated by extensions to the north and south.

FC

5.3 Site Setting

The scope of works is limited to internal refurbishment and a small extension to FOH and IPU. As the new extension works are modest in size, they will be placed within the context of the existing site setting and access points.

The IPU extension will occupy the area to the immediate west of the existing IPU and will connect to the existing IPU central corridor. This extension makes use of the northern aspect to provide an outlook and natural light into the central corridor with glazing addressing a new landscape space.

The front of house extension is small in extent and will retain the existing relationship to the site context, maintaining the current parking and arrival points. The extension takes the opportunity to create a contemporary face to the hospital with a new landscaped forecourt allowing users to take advantage of the amenity values of the site.

5.4 Site Access

Site access arrangements will remain as existing with no upgrades proposed to parking or driveways. Separate visitor parking access and ambulance access points are provided from Dawe Ave. A shared access driveway is also maintained from Dawe Ave providing access to both the Community building parking and Finley Aged Care.

Service vehicles and informal staff parking will continue to be accessed from from Scoullar St.

Vehicle Flow Pedestrian Flow





Logistics

Entry



Ambulance

Entry

Main

Entry

5.5 Building Access

The hospital will have a new main entrance serving the new FOH which replaces the current main entrance. This new entrance is accessed via new arrival landscaping from the existing parking.

The hospital contains a number of existing secondary access points which will be retained in their current configuration. Utilisation of these access points will be subject to local operational practice. The existing building access points consist of:

- Ambulance entrance entering directly into ED.
- Secondary eastern entrance which accesses the main corridor and now unused Imaging. This access is now closed to public.
- Entrance directly into physiotherapy space.
- Outdoor access from staff area.
- Access to Back of House (BOH) area.

5.6 Crime Prevention Through Environmental Design (CPTED)

The following design responses were made in consideration to CPTED principles.

- New FOH extension removes the opportunity for concealment externally by eliminating the inset area of the building form. The new main entry is prominent from the street frontage with clear oversight from reception and the carpark.
- The new FOH extension clearly identifies the main entrance from the remainder of the facility giving clarity to what external spaces people should be occupying.
- The reconfigured internal planning provides clarity of circulation and reduces the extent of the facility that visitors need to access and clearly identifies public and private zones.





New Access Point



Existing Access Point

5.7 Car Parking

No changes to existing car parking are proposed as part of the works. Existing parking arrangement consists of visitor parking accessed from Dawe Ave on the north of the site including on-street parking, Community Centre parking accessed from Dawe Ave located at the west of the site and staff parking in an informal arrangement at the south of the site accessed from Scoullar St.

5.9 Circulation

Through the replanning of Imaging and IPU, a simpler and more direct circulation strategy is created. Patient and visitor circulation is focused on the western side of the building, with access from FOH direct to imaging and via a public corridor to IPU. Patients / visitors will only traverse the eastern side of the building to access physio services. Staff are now provided with a direct access path from ED and triage to FOH removing the need for crossover with public corridors. The eastern side of the building predominantly contains admin and BOH which limits this space to a mostly staff only circulation.



5.8 Building Levels

The proposed upgrades will provide a continuation of the hospital as a single storey facility. The relative level (RL) of the new ground floor extensions has been determined to match the existing hospital floor level. The hospital is located on a flat site and the existing building level provides adequate and DDA compliant access to patients, visitors and services. The new building extension will be slab on ground construction.





5.10 Fire Compartments

The hospital will contain 2 separated fire compartments with FRL of 90/90/90 sized to comply with DTS areas nominated in the table below.

Compartment 1 contains patient care areas incorporating the ED, IPU, Imaging and FoH. This compartment will provide separation of the refurbished and extended areas from the existing. Compartment 2 contains non-patient care areas which are existing.

In addition to the main fire compartments, there will be fire separation provided to the expanded Main Comms Room.



Maximum DtS compartment areas

Non-patient areas	$> 2000 m^2$	Separated from adjacent compartments by walls
		with a fire resistance level (FRL) not less than
		90/90/90
General patient areas	> 2,000m ²	Separated from adjacent compartments by walls
(except ward and treatment		with an FRL not less than 90/90/90
areas as described below)		
Ward areas	$> 1000 m^2$	Divided into floor areas not more than 1000m ²
		by walls with an FRL not less than 60/60/60
	$501m^2 - 1000m^2$	Divided into floor areas not more than 500m ² by
		smoke-proof walls which achieve an FRL not
		less than 60/60/60
	$\leq 500 \text{m}^2$	Separated from the other patient care areas with
		smoke-proof walls which achieve an FRL not
		less than 60/60/60
Treatment areas	> 1000m ²	Divided into floor areas not more than 1000m ²
		by smoke-proof walls
	$\leq 1000 m^2$	Separate from the other patient care areas by
		smoke-proof walls

5.11 Modularisation/Standardisation

A Standardised Room approach will be developed throughout the upgrade of the various clinical departments of the Finley Hospital upgrade in keeping with the AusHFG as much as possible. As the Finley Hospital upgrade is within the existing hospital, this will be challenging in spaces that are restricted by the current building structure and services that are being retained.

The preliminary room layouts reflect the AusHFGs and best practice experience garnered from recent, and other concurrent projects throughout NSW. HIMLHD standardised bedhead and medical service panels (MSP) are proposed, not only in IPU bedrooms but within the refurbished spaces in the ED including Patient Bays.

A standardised approach to the ensuite layouts in the new 2-Bed rooms has been implemented. All three bedrooms have inboard Ensuites and are back-to-back (mirrored) which can provide efficiencies in cost and planning, e.g. apportioning of hydraulic and MSP services in the common walls between bedrooms. Mirrored rooms also allow staff to observe two patients from one vantage point in the corridor.

The setup of each patient bedroom will be standardized and designed in zones. The nursing/staff zone will be closest to the entry of the room for both beds, allowing ready access to the patient's bedside as well as critical services like gases on the MSP.

5.12 Security and Access Control Zones

Access to public entry points are clearly defined and signposted, while restricted access areas use security hardware to ensure unauthorised personal are deterred from entering the building.

The Hospital is accessed via a single entry point that is open to patients and visitors from 0600 to 2100, 7 days a week. After this time, visitors will use an after-hours intercom at the Main Entry to access services within the 24-hour zone, namely ED and the IPU. The existing 12-hour zone comprising Ambulatory Care Centre and Staff Admin areas will be locked and inaccessible to public and visitors after hours. The security presence will include:

- Monitored recorded CCTV at Main Entry, ED and IPU;
- Provision of Security services on a 24 hour, seven day a week basis;
- Advanced Life Support (ALS) response;
- The ability to send and respond to security duress calls via fixed and portable duress alarms;
- Access and security for relatives and visitors to each department within the hospital will be controlled via the Triage/IPU Staff station.

5.13 Materials & Facade

Lemon scented gum trees are planted around the hospital, greeting visitors as they frame the arrival to the site. From the connecting with country consultation, the project team heard about the traditional antiseptic uses of this tree and its desirable use in smoking ceremonies due to the strong lemon aroma.

The finishes of the upgrade take inspiration from the flowers of this tree as the process of the developing flower buds make reference to the patient journey. The sprouting buds of the lemon scented gum develop as a bold red colour and these buds form a protective shell around the blossom inside. In spring, the buds pop off its top hat - revealing a blooming cream flower.

Referencing this blooming process we have developed a rich red facade for the the building extensions which represent the shell of the bud. As the user enters the building, the interiors scheme references the blossom with a warm and soft material palette.



Existing Brickwork to be Retained



Lemon Scented Gums



Buds Outer Shell



Blossom



5.13 Materials & Facade



MP1 - Custom Perforated Screen

MC1 - Standing Seam Metal Roof and Facade



MR1 - New Custom Orb Roof Sheet

FX

EXB - Existing Blonde Brick

5.13 Materials & Facade

New Main Entrance

The facade system for Finley Hospital is proposed to be a rain screen system with a weathertight barrier placed beneath the outer finish cladding. The facade finish is proposed to be a standing seam metal cladding. This facade at the main entrance will contrast but complement the existing blonde face brickwork of the existing hospital. The strong contrast of this material will assist in defining a fresh arrival point to the redeveloped facility.

Taking advantage of the northern aspect, the new front of house will have extensive glazing opening out toward the new landscaped arrival forecourt. An entrance awning provides weather protection to the entrance itself but also provides significant shading to the glazing to avoid heat buildup from the northern sun.







EXISTING ROOF New Custom Orb Roof Sheet



EXISTING WALLS Blonde Brick

5.13 Materials & Facade

IPU Extension

The same standing seam metal cladding system is used on the IPU extension. As this extension is a clearly defined form attached to the existing building, the roof finish is proposed to be a continuation of the standing seam cladding used on the facade. This treatment emphasises the simplicity of the extension and allows it to have a clean contrast against the original building.

A significant roof overhang is provided to the northern frontage of this extension to provide shading to the glazing below. As this glazing is providing an extensive outlook to the landscaping from the corridor internally, it is important so provide privacy screening to users inside. A series of blade walls are proposed in combination with perforated metal panels. These perforated screening panels provide an opportunity for an art integration with the perforation design itself. The perforations will create a dapple of sunlight internally to the corridor.



Standing Seam

Metal Cladding



SCREEN Perforated Aluminium Art Opportunity





EXISTING ROOF New Custom Orb Roof Sheet



EXISTING WALLS Blonde Brick

5.14 Materials Interior

Interiors

Following the conceptual reference to the lemon scented gum flower, the internal materials reference the warm colour tones of the blossom. Continuing the vertical lines of the external cladding, a vertical batten treatment breaks up the expanse of the larger walls and emphasises the high ceilings over the waiting areas.

Timber finish laminate acoustic ceilings and timber look vinyl to the floor create an inviting warmth to the space. Opportunity for art is nominated to the rear wall of the waiting area with golden tones referencing the blossom.

Additional colour will be introduced through the selection of furnishings.



ENTRY MAT Carpet









PAINT Wall & ceiling

COMMUNIAL ART Opportunity

5.15 Impacts on Existing Departments/Services

The proposed works to Finley Hospital involve alterations and extension to existing operational spaces and the relocation of Medical Imaging Department to have a close adjacency to the ED and FoH. The reconfiguration allows the creation of a 24 hour zone and improved functional adjacencies.

The proposed replanning will require temporary relocation of some services to facilitate the works. The close proximity of the new works to operational spaces will require management to ensure that clinical services can be safely maintained on-site, and the building / engineering services facilitate service continuity throughout the construction period. Refer to Section 4.9 for a detailed Staging Strategy.

The IPU will be impacted by the new IPU extension requiring the nearest bed room to be taken offline for a period of time during construction. The replan of the IPU staff station support area is required to allow for the new corridor link between FoH & ED. Upgrades to the ED will require the existing treatment beds to be temporarily relocated.

The partial refurbishment of the ED will occur within a live environment. Access for Ambulance and walk-in presentations will need to be maintained at all times. Use of hoardings within the department will be required to minimise dust and noise. Secure entry to the ED will need to be maintained at all times, including controlled access for the Contractor.

To permit the construction of the new FOH and MI, a temporary main entrance will be established through the existing IPU verandah and decanted bedrooms. The new FOH and Imaging are adjacent to IPU and ED so noise and dust management will be required.

The existing Imaging is located away from the new works so will not be impacted. Ambulatory Care will remain in the community building unimpacted by the works.

5.16 Future-Proofing and Expansion

Future expansion opportunities exist within the current building footprint through the refurbishment and reuse of existing unused spaces. Vacant spaces exist within the previous GP clinic wing, the current medical imaging and a portion of the current IPU will also become vacant as part of this upgrade. Relocating ambulatory care into the main hospital building is identified as a future expansion opportunity to occupy these vacant spaces.

A future expansion opportunity can be accommodated for the IPU with a new extension to the south of the current IPU. Expansion of the ED can be accommodated with an extension to the north in the location of the current ambulance bay.





5.17 Landscaping

Two new landscaped spaces are proposed to be constructed as part of the redevelopment. A new arrival forecourt is to be created to the main entrance where planting and built-in seating elements will welcome users to the building, softening the space and providing a calming arrival. This area defines spaces where users can sit and pause on arrival and also use as an area of respite surrounded by planting and new trees. The awning at the new main entrance provides a shaded seating area.

Adjacent to the new IPU extension will be an area of new landscaping which provides an outlook from the new IPU corridor windows. Additionally this landscape will provide a privacy buffer to these windows from vehicles and pedestrians using the western access road to Finley Aged Care and the Community building. A zone of landscaping has been provided to the south of the IPU extension to provide an outlook from the bedrooms and privacy from adjacent uses.

The planting strategy has been developed from Connecting with Country principles. With the key principles being informed though ecological outcomes as well as cultural and clinical outcomes. Additional indigenous tree species are proposed to complement the existing trees on site. Species generally are to be low maintenance non toxic and low allergenicparticularly in areas close to the main building and clinical spaces.



5.18 Way Finding

Studio Semaphore have developed a Wayfinding and Signage Strategy for the Finley Hospital upgrade which will ensure effective wayfinding to support the hospital by ensuring operational efficiency and contributing to a positive experience for consumers, staff and visitors. The new wayfinding will provide new signage as appropriate to facilitate the upgrade works however existing room signage will be retained where feasible.

The wayfinding strategy covers the following areas and is included in appendices for reference.

- Users
- Site Analysis
- Recommendations
- Proposed Signage Family
- Wayfinding Best Practice
- Next Steps



SEMAPHORE

5.19 Furniture, Fittings and Equipment

The MLHD have conducted a review of the existing FF&E to be transferred to the new **Finley Hospital upgrade**. The review includes:

- The current condition of the existing item nominated for transfer, eg "As New", "Fair", Poor", etc. Items that are deemed to be in "Poor" condition, and not fit for transfer, have been noted by the MLHD. The SD cost plan for the refurbishment is based on 100% transfer of BME/ICT elements, and as per the transfer audit report for other furniture and fittings (refer to Appendix 7.5a of this report);
- The current location of the item in the existing facility as well as a proposal for the final room where the item will be placed in the new **upgrade**;
- Dimensions of the item nominated for transfer: LxWxH. Not all items will require dimensional information (eg lead aprons, syringes, brackets); however, dimensional information for several furniture and equipment items, including but not limited to: drug fridges, gym equipment, filing cabinets, computer monitors, ice dispensers etc, is vital to ensure that the spatial allowances made in the design are sufficient for the transfer items in the new hospital.

A Summary of the FFE Strategy across the **Finley Hospital upgrade** is outlined in the table adjacent.

Please refer to following appendices in volume 2 of this report for further information regarding FFE grouping, numbers and transfer location.

- Preliminary Furniture, Fit out & Equipment Schedule
- FFE Transfer Items Audit Report

FFE Type	Description		
New FFE Items	 All FFE are identified in the FFE Schedule issued by HDR. MLHD have confirmed that some Group 3 items, are new items. This will be Design (DD) phase. Services – Upgraded as per Services Engineers' documentation. All services items which appear in AHFG RDS are also included in the FFE medical services panels in the IPU extension. 		
Transfer Items	 All BME are 100% Transfer items All other FFE transfer items are as per the transfer audit report (as outlined) 		

be further reviewed and confirmed in the Detailed

schedule as it assumes all services are to be new. eg

d in appendices of this report).

5.20 Safety In Design

Introduction

As part of our commitment to managing work health and safety risks associated with design, HDR conduct risk workshops at various stages throughout the design process. This report provides a summary of the design safety risk assessment conducted for the project and the hazards that have been identified.

HDR have made all reasonable attempts to incorporate controls within the design for foreseeable risks identified by these workshops. As with any risk assessment, the risks may change and additional risks may be identified by others. Hence this risk assessment should be used as an input into additional risk assessments for construction, maintenance, occupation and demolition of the structure.

Risk Assessment Methodology

HDR safety in design risk assessments are carried out in accordance with the HDR Safety In Design Procedure (Document Number WHS 014). The process involves conducting reviews of the design using a set of guidewords to prompt the identification of hazards associated with construction, maintenance, use and demolition.

Each hazard identified is assessed using the risk assessment matrix shown below. Where possible, the hazards that are identified are eliminated from the design through design change. If the hazards cannot be eliminated, they are reduced as far as is reasonably practicable using the hierarchy of control as an order of preference.

Safety in Design Workshops

A schematic design safety in design workshop was held for this project on 11.01.24 and was attended by HDR, Capital Insight, GHD, Tonkin, Health Infrastructure and MLHD. At this workshop, the hazard register was reviewed and updated with hazards identified for the project. See appendices for final hazard register.

Risk Assessment Matrix

	Consequence				
Likelihood	Major Death or permanent	Significant Serious injury, lost time	Minor Medical treatment required	Insignificant Minor scratch, bruise	
	disability				
Very Likely Expected in most circumstances	Extreme	High	High	Medium	
Likely Could occur	High	High	Medium	Medium	
Unlikely Could occur but low probability	High	Medium	Medium	Low	
Very Unlikely Not expected to occur	Medium	Medium	Low	Low	
Risk Rating	Control priority required				
Extreme	Stop work immediately until adequate controls are implemented				
High	Implement risk controls within the same day				
Medium	Implement risk controls within 1 week				
Low	Continue to monitor				
		Hierarchy of controls			
1. Elimination	Do we really need to do	the activity or include it in	n the design?		
2. Substitution	Can we substitute with a less hazardous activity or design element e.g. different chemical				
3. Isolation	Can we separate the person from the hazard such as operating a machine remotely.				
3. Engineering	Can we specify guards, barriers etc.				
4. Administration	Can we document proce	edures, safe work instruct	ions, use signage etc.		
	Can we use PPE				

FC



Infrastructure Review

06_ STRATEGIC CONTEXT

6.1 Structural

The schematic design maintains most of the existing hospital structure with majority of the changes made towards the FOH area, upgrades to existing corridors and a new IPU extension towards the western end of the building. Demolition works will mainly involve demolition of internal load bearing and non-load bearing walls within the FOH areas. Construction of the new IPU extensions and refurbishment to the FOH will adopt similar structural elements as per the existing structure being reinforced concrete slabs for the floors, masonry load bearing walls and timber roof framing. Alternatively, subject to compliance with fire-resistance (FRL) and acoustic requirements, light-weight stud wall system with suitable fire-protection and sound insulation can be adopted in lieu of masonry load bearing walls.

Apart from the main hospital building, no other structural alterations are to be made to the other buildings within the site. There are parts of the existing space within the main hospital building that will be left vacant in the current scheme. Unless determined otherwise by the relevant authorities, these vacant areas in the main hospital building and surrounding buildings within the site are not part of the scope of this report.

6.2 Civil

The civil engineering design will involve stormwater drainage connections for the proposed building extensions and reinstatement of deteriorated infrastructure to support the upgrade of the hospital.

A site investigation of Finley Hospital informed the condition of asphaltic pavement, internal road and carparking layouts, existing drainage infrastructure, stormwater connection points and overall topography and imperviousness of the site.

Topographically, the site is extremely flat – representing maximum grades of approximately 0.2% longitudinal fall in both the road network and within the site.

The existing underground drainage network is expected to cater for the proposed minor building works approximated to an additional roof catchment of 226 m² without requiring downstream upgrades or detention facilities

6.3 BCA/DDA

The BCA assessment is undertaken to with respect to compliance of the new works. The report identifies matters relating to the existing building that are required to be addressed as an upgrade strategy to accommodate the new works. Refer to appendix for BCA Report.

There are 8 items identified requiring a performance solution.

B. Summary of Items Requiring a Fire Engineering Performance Solution:

+ BCA DTS Clause		+ BCA Performance Requirement	+ Description
1.	S11C2	C1P1, C1P2, C1P3, C1P4	Timber noggins located within smoke walls.
2.	S12C4	C1P3, D1P2	Swing of fire safety doors against the direction of egress.
3.	D3D25	CP3, D1P2	Swing of horizontal exit door against the direction of egress
4.	E2D11 / S20	E2P1	Location of existing FIP and EWIS Panel remote from the Main Building Entry
5.	S20C3	E2P2	Clearance around manual call points in fire hose heel cupboards
6.	E4D9	E2P1, EP43	Rationalization of EWIS speakers within ward areas

C. Summary of Items Requiring a Performance Solution:

+ BCA (DTS) Clause		A (DTS) Clause	+ BCA Performance Requirement	+ Description
1	I.	F4D4	F4P1	Males and females sharing unisex sanitary compartments containing water closets
2	2.	F4D4	F4P1	Males and females sharing unisex ambulant sanitary compartments

The hospital is classified as follows:

Item	Classification
BCA Classifications	Class 9a
Rise in Storeys	One (1)
Storeys Contained	One (1)
Type of Construction	Type C Construction
Importance Level (Structural)	Importance Level 4
Sprinkler Protected Throughout	No
Effective Height	<12m
Floor Area	2424
Largest Fire Compartment	1555
Climate Zone	Zone 4

06_STRATEGIC CONTEXT

6.4 ESD

A strategy and range of initiatives to support the sustainability outcomes sought by the various requirements are proposed. These initiatives will be assessed against whole of life principles, operational and environmental benefits prior to adoption, noting that the partial nature of the upgrade does not aim to address the entire building's ESD performance but rather focuses on initiatives pertinent to the new sections.

The relevant regulations (incl. state planning requirements) and other drivers which collectively influence the sustainability response for the proposed development at Finley hospital are as follows:

- National Construction Code 2022 Section J
- DGN 058 / ESD Evaluation Tool
- Environmental Sustainability Strategy 2022-2024 from Health Murrumbidgee Local Health District
- Secretary Environment Assessment Requirements (SEARS) (yet to be issued)
- Other drivers e.g., decarbonisation of the built environment

6.5 Mechanical and Medical Gases

There is an existing variable refrigerant flow (VRF) system serving the ED ward of the hospital that was installed as part of the 2018 works. It is proposed to retain this system and reconfigure the indoor units to suit any room changes in the area. Where additional indoor units are required to supplement the refurbishment and expansion, investigations during DD will be undertaken to ascertain if the existing system has capacity for additional indoor unit connections.

The new IPU expansion will require a new VRF system to provide heating and cooling to the new patient rooms. External heat pump units are proposed to be located adjacent to the existing units serving the ED ward. Fresh air shall be provided by roof cowls and ducted to the various indoor units to provide fresh air to the spaces in accordance with the relevant standards and codes.

The medical imaging department shall have its own standalone heat pump air conditioning system, due to the differing operational hours of this department compared to ED and IPU. It is proposed to utilize ducted concealed indoor units connected to reverse cycle outdoor units, located in the area where the existing ED outdoor units are installed.

All new mechanical services and equipment are proposed to be supplied by a new dedicated mechanical services switchboard. As per NCC requirement, HVAC equipment is not required to shutdown in fire mode and may remain operational.

Medical Gases

Medical gases for the new and refurbished areas shall be provided by extending from the existing bottled oxygen supply, with necessary augmentations being provided to pipe sizes and manifolds to suit the new demand.

A new vacuum pump is proposed to supply medical suction to the various ward areas, due to the age of the existing system. Again, suction pipe augmentations shall be provided to meet the new demands from the refurbishment and expansion.

6.6 Electrical & ICT

Site electricity supply grading issues were identified during the latest site inspections. Therefore, the existing electricity supply infrastructure requires an assessment to be undertaken to confirm its suitability for continued use for the upgrade. The assessment currently sits with the MLHD.

It is anticipated that the existing site supply infrastructure can be utilised for the upgrade. However, an upgrade to the site main switchboard will be required to accommodate the PV installation connection, battery and future connections to a energy storage system (BESS), KWA and EV charging stations.

Generally new and reconfigured infrastructure will be provided for the new and refurbished areas of the upgrade.

ICT

The existing communications room will be expanded in its current location. New racks will be provided with existing equipment transferred to the new racks. Rack-mounted UPSs will be provided. Existing carrier lead-in cabling will be retained. New horizontal Cat 6A FUTP cabling will be provided to all new communications outlets.

06_ STRATEGIC CONTEXT

6.7 Hydraulic & Fire

Hydraulic services and systems proposed as part of the upgrade are as per the following:

Domestic water

- Based on MLHD discussion hospital fixtures old and new will be served by a new pressurised (booster) system. This will include a 5,000L (1900W x 1860H) break tank to comply with current standards.
- As per Council advice, the maximum pressure is 210kPa at 13 l/s. The project will carry out independent pressure and flow testing to confirm the adequacy of existing water supplies.
- The existing overhead water tank to be decommissioned.
- Existing cold and hot water reticulation will be retained with new extensions connected for the new wet areas.

Filtration

 Two (2) automatic point-rotation backwash filters complete with 30 micron stainless steel screens.

Hot & Warm Water

- The existing gas hot water unit will be replaced with an electric hot water unit (1930mm L x 1680mm H).
- Units to include connection to existing BMS.
- Provide thermostatic mixing valve arrangement for the delivery of warm water to sanitary fixtures.
- Provide a thermostatic mixing valve monitoring system.

Drainage

- New downpipes will be provided to the new roof area.
- All sanitary plumbing and drainage from the expansion of IPU and new FOH, will run by conventional gravity drain to the existing sewer infrastructure. It is proposed to install new sewer inground piping as CCTV inspections have shown that most of the sewer joints have intrusions of tree roots and the existing sewer pipes have reached the end of life and need replacement.

Fire Hydrant system

- Existing fire hydrant booster will be re-orientated facing the hardstand, so that the fire hydrant booster and suction are both facing the roadway.
- The existing external single pillar fire hydrant will be upgraded to dual pillar hydrant to comply with AS 2419.1 requirements.
- Fire hose reels will be provided to suit the new building layout.

Wet Fire

In accordance with the BCA, a wet fire sprinkler system is not required for the extension and refurbishment works and is not provided as part of the schematic design. In addition, existing drenchers will be removed and will provide a fire engineering performance solution.

Dry Fire

The existing detection and emergency warning systems are in good condition and suited to be reused for the upgrade. They will be reconfigured throughout the refurbished areas of the upgrade and extended into new areas as required.

6.9 Traffic & Parking

There is sufficient parking on site to satisfy the existing demand. As the upgrade scope is a refurbishment, there will be no impact on the traffic and parking demand on the site. Traffic and parking arrangements will remain unchanged.

6.8 Acoustics

All aspects of the Finley Hospital upgrade acoustic design will be completed in accordance with the NSW Health Engineering Services Guide (NSW Health 2022) which includes:

- Environmental noise.
 - Environmental noise emission
 - Environmental noise intrusion.
- Building services noise and vibration.
- Architectural acoustics.

 - Internal acoustic isolation.
 - Room acoustics.

- Internal design noise and vibration levels.
- Vibration and structure borne noise.

Appendices

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