Launceston General Hospital

PRECINCT MASTERPLAN

OCTOBER 2021

Department of Health

Tasmanian Government

Contents

1. Introduction

This Masterplan presents a roadmap for the development of the Launceston General Hospital (LGH) precinct over the next 20 years. It is informed by what we know about current and future demand pressures, service growth, the condition of our assets and what we have heard from the community, staff, other service providers and our partner organisations about what is important to them.

Building on a hospital site is challenging and it is important that all development works are planned carefully to minimise disruption to service delivery and impacts on patients and staff. That is why this Masterplan proposes a staged approach to development, in a sequence that facilitates orderly demolition and construction, limits double decanting, and capitalises on and maximises clinical links.

This Masterplan takes into consideration that health services will change over time, as care models and service priorities evolve and as advancements in technology are made. We must be responsive to the changing needs of the community we serve and to our workforce, with a constant focus on improving patient outcomes.

1.1 Vision and objectives

The strategy outlined in this Masterplan is designed to make the best use of land and buildings and to maximise development opportunities on the LGH precinct to support the delivery of safe, high quality healthcare now and into the future. The Masterplan provides a framework to address projected demand for clinical services as well as issues identified with current infrastructure in the short, medium, and longer term.

The broad objectives for the LGH precinct are to:

- provide contemporary and well-designed facilities that effectively enable health service delivery
- improve patient and visitor amenities, wayfinding, and pedestrian and vehicle circulation
- unlock development potential on the site to create more space to modernise the hospital and accommodate future growth
- provide more space for staff learning and collaboration activities
- ensure the maximum economic, social, and environmental benefit to the public from any potential public investment in infrastructure.

This Masterplan also aims to achieve balance between rapid delivery of improved facilities and the best long-term outcome. It recognises that increasing service delivery capacity in the short term is often the most pressing need. However, it must be considered in the context of a longer-term strategy as well as non-infrastructure alternatives, such as new models of service delivery and technology solutions.

1.2 Background

In 2018, the Tasmanian Government committed to a major redevelopment of the LGH and allocated more than $87 million for new capital projects. This funding has enabled the progression of some key infrastructure priorities including:

- expanding and enhancing the scope of the Charles Street tower development to provide additional floors of clinical space
- upgrading critical core infrastructure
- installing new negative pressure rooms in the Acute Medical Unit
- upgrading the 39 Frankland Street building.

In late 2019, the Department of Health began developing a Masterplan for the LGH precinct, to guide how the remainder of the funding will be allocated and to develop short, medium and long-term expansion and redevelopment solutions that will enable staged growth to meet service demand and funding availability. The COVID-19 pandemic disrupted these planning processes, but work was able to resume in late 2020 to develop and refine the options outlined in this Masterplan.

The Government has committed to the next stages of the Launceston General Hospital redevelopment masterplan, with a $580 million major investment over 10 years to meet future demand.

1.3 Principles

The following principles have been used to establish the foundations of a Masterplan that is forward-thinking and focused on the total needs of the precinct. Where there are competing priorities and limited resources, these principles help to develop, assess, and refine options.

Consumer centred

- Developments are informed by current and future health needs of the community.
- Future buildings enable safe, contemporary, effective and efficient models of patient care and are designed to meet the accessibility needs of consumers, visitors and staff.
- New facilities are designed to contribute to the process of healing and with regard to:
  - the safety, privacy, and dignity of patients, staff, and visitors
  - the diverse needs, values, and circumstances of consumers, including their race, religion, gender, age, sexual orientation, and any disability.

Functional and connected

- Developments improve the efficiency of operational relationships.
- Clinical and support service zoning promotes connectivity, safety, and effectiveness.
- Seamless patient journeys are facilitated.
- Interprofessional connectivity and learning are supported.

Flexible and sustainable

- Future buildings are inherently flexible and long life, able to respond to advances in healthcare, technology, new models of care and patient needs.
- Developments deliver the required quality of design and contribute to wider environmental, social, and economic sustainability.

Deliverable

- Developments are affordable and achievable.
- Coordinated and time-efficient build programs are able to be designed and delivered.
- Construction works can be delivered while maintaining clinical functionality.
- Service interruptions and impact on patients, staff, and visitors are considered in planning decisions.

Optimises use of total health system resources

- Developments provide value for money.
- Non-infrastructure solutions to service needs are considered.
- Maximum benefit is derived from any previous investments.
- Focus is given to whole-of-life rather than just initial capital costs.
- Opportunities for partnership are pursued.

1.4 Methodology

A consultative process has been taken to develop this Masterplan in the following broad phases:

Understanding the current and future service context through:

- an analysis of hospital utilisation data, including the number and nature of hospital admissions, emergency department presentations, outpatient activity and operating theatre utilisation
- consultation with clinical staff, support staff and volunteers of the LGH, members of the public, community and consumer representatives, local healthcare providers, key partner organisations, the Northern Reference Group, and executive members of the LGH and the Department of Health and Tasmanian Health Service
- a literature review of models of care and an analysis of workforce priorities.

Assessment of existing assets to understand their condition and suitability to support service delivery, including:

- site investigation and analysis of whole-of-site physical capacity for expansion
- identification of opportunities and constraints of current physical assets
- assessment of whole-of-site building services and critical infrastructure, considering its ability to support expansion and corrective actions required
- determination of opportunities and constraints of future development of the precinct.

Determining the best use of the land and buildings to help address emerging service and infrastructure challenges and identify options that include:

- service model changes as an alternative to infrastructure investment
- no building work at all, including the decommissioning and potential demolition of existing buildings
- relocating or reassigning functions within the existing precinct buildings
- refurbishing existing buildings
- new capital developments.

1.5 Stakeholder engagement

In late 2019, the Northern Reference Group was formed to help guide and inform the Masterplan process, and clinical service planning began. The Northern Reference Group comprises representatives from the LGH Executive team, the Northern Consumer and Community Engagement Council, the Australian Nursing and Midwifery Federation (ANMF), the Australian Medical Association (AMA), the Health and Community Services Union, and the Department of Health Infrastructure Services.

Early in the planning process, stakeholder consultation was undertaken with clinical staff, support staff and volunteers of the LGH, members of the public, community and consumer representatives, local healthcare providers, key partner organisations, and executive members of the Department of Health and Tasmanian Health Service.

A public submission process was undertaken from December 2019 to February 2020 and a series of focused workshops were held in early March 2020 with clinical service groups and partner organisations. A copy of the consultation findings summary report is available here.

Draft Masterplan - public consultation

Input from the early consultation process was used to formulate a Draft Masterplan, which was launched by the Minister for Health for public consultation on 28 May 2021 and published on the Department of Health website. A survey link was provided on the website and in all communication materials, for people to register their interest in a focus group and/or provide feedback.

A range of activities occurred during the consultation process to seek feedback from stakeholders on the Masterplan including correspondence and meetings with key stakeholder groups, staff communiques, onsite information booth, reference group meetings, stakeholder information and focus group sessions. Feedback from the joint ANMF/AMA member survey on their understanding of the Masterplan process, their key priorities and any challenges or opportunities that they were able to identify was also received during the consultation process.

In general, stakeholder feedback indicated broad support for the Masterplan principles and planned developments, with much of the feedback echoing previous findings from earlier facility planning consultation and assessments, covering a wide range of general issues such as accessibility and car parking, storage, improving staff amenity across the campus and delivering facilities that meet contemporary standards. Stakeholders also expressed a strong desire to receive information about upcoming developments and to be involved in the planning of them.

Feedback from this consultation process has informed some minor updates to the Masterplan and will be used as the next stages of detailed planning. Communication and engagement activities will also be revised in response to feedback. All stakeholder input, questions and advice received has been recorded for use as we move through the planning and implementation phases.

1.6 Scope

The scope of this Masterplan includes the main LGH campus and its surrounding sites and buildings:

A1-9:	Main hospital campus
B:	Viewpoint
C:	Spur Wing
D1:	39 Frankland Street
D2:	Old Nurses' Home
D3:	Holman Clinic Accommodation and Gardener's Cottage
D4:	Anne O'Byrne
E1:	Allambi and Mulgrave Street
E2:	John L Grove and Northern Dental Service
F:	Nalumi Flats

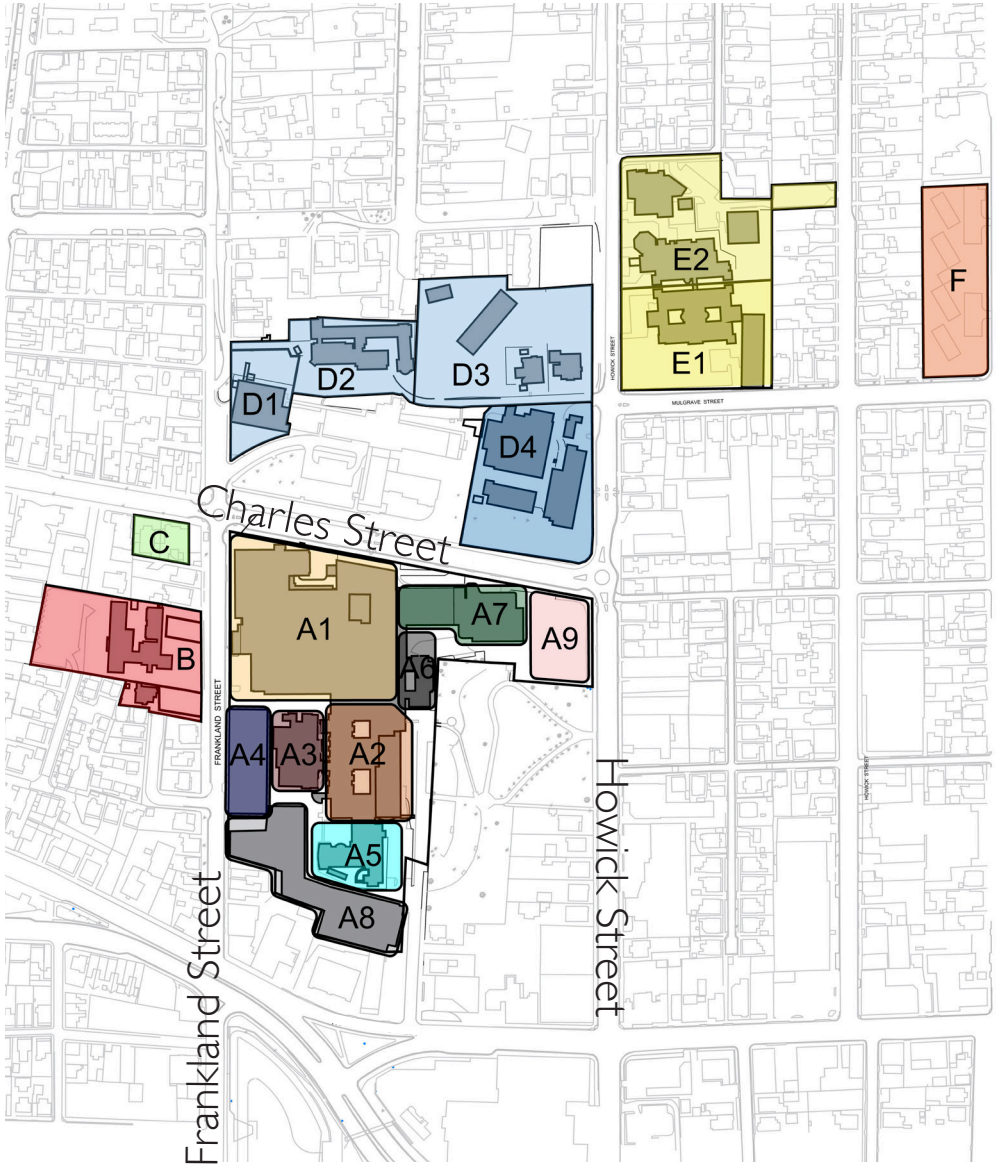


Fig 1. Existing LGH precinct

2. Strategic planning context

2.1 Role of the LGH

It is important that health services are considered and planned for in the context of the statewide Tasmanian public health system.

As the major hospital for its primary catchment area of greater Launceston and the North East, and as the principal referral hospital for the North West and West Coast regions, the LGH provides acute care, including emergency, intensive care, and in-patient services; maternity services; outpatient clinics; and community and sub-acute services. Community and outpatient services include allied health, nursing, health promotion, home care, and palliative and aged care services. These services are provided from community health centres and rural facilities, as well as at the LGH.

A review of the current level of services delivered at the LGH has shown that this clinical service profile is appropriate for the type of care required and the projected number of patients into the future. It also shows that the LGH provides a high level of self-sufficiency for the clinical needs of its community, with good links to specialist treatment in Hobart or interstate where appropriate.

As an accredited teaching hospital, the LGH has a close partnership with the University of Tasmania through the Launceston Clinical School and the School of Nursing and Midwifery based in Launceston. Research and innovation are encouraged and supported throughout the hospital with research sponsored by the Clifford Craig Medical Research Trust.

Refer to the Tasmanian Role Delineation Framework and Clinical Services Profile for more information of the clinical service profile of the LGH and other major hospitals.

2.2 Demographics

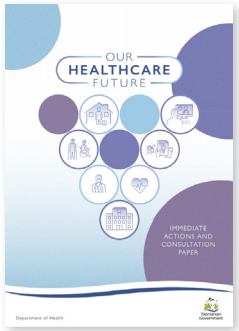
Overall, Tasmania has unique social and demographic factors, including an ageing population and a high number of people living with multiple, significant health conditions, which are a major cause of the projected increases to service demand.

The estimated population growth for the LGH primary catchment is relatively low; with the population projected to rise 2.6%, from 144,603 in 2018 to 148,402 in 2036. However, the projected increase in the number and proportion of patients aged over 70 years of age will present a major challenge for the public health system in the Northern region over the next 20 years.

Currently the cohort of patients aged over 70 years of age occupy 40% of total occupied bed days in Northern Tasmania but this is projected to increase to 60% of total occupied bed days by 2036. This demographic change will have a significant impact on overall future service demand. Data from 2018-19 showed that residents of the LGH's primary catchment made up 83% of admissions, with a further 14% of patients from the North West and West Coast and the remainder comprised of those from Southern Tasmania, interstate and overseas.

2.3 Our Healthcare Future

Following the release of ***Our Healthcare Future Immediate Actions and Consultation Paper*** in late 2020, in July 2021, the Tasmanian Government released Stage Two of ***Our Healthcare Future***, which outlines the long term health reform agenda for the State. The Policy has a focus on connecting and rebalancing care across our acute, sub-acute, rehabilitation, mental health, and primary health sectors, through to care in the community.



It points to opportunities to improve the sustainability of our hospitals and the health of our community, underpinned by increased availability of primary and community care. Where appropriate and safe to do so, this will include alternatives to hospital care that are delivered in the community, closer to home.

Our Healthcare Future outlines opportunities for reform under its three key improvement areas: Better Community Care; Modernising Tasmania's Health System; and Planning for the Future.

In alignment with the key themes that emerged during the consultation, the next phase of these reforms is to engage in co-design to develop a new long-term plan for healthcare in Tasmania, to build an integrated and sustainable health service.

The development of the ***Our Healthcare Future*** Plan will be underpinned by an evidence-based approach, which includes statewide clinical services planning and detailed modelling of Tasmanians' current and future health needs.

This work will be led by an Expert Advisory Group, including representatives from key stakeholder groups including health consumers, clinicians, academia, primary health and social services, together with senior members of the Department.

This Masterplan has been designed to be responsive to the priorities in the forthcoming ***Our Healthcare Future*** Plan and to other future service changes by ensuring that new developments are future-proofed and can be delivered in stages. In the short term and while new service models are being developed and implemented, additional space for hospital-based care is provided in this Masterplan.

One of the immediate actions outlined in ***Our Healthcare Future*** is to develop a 20 year Health Infrastructure Strategy for Tasmania, to ensure health facilities enable the delivery of the right care, in the right place, which will improve access to quality healthcare and help manage service demand on our hospitals.

Once finalised, this LGH Masterplan will support the Health Infrastructure Strategy, which will provide a statewide framework for ensuring our health infrastructure is flexible, scalable, adaptable and responsive to changing models of care.

The important role of clinical service planning as a key driver of future infrastructure investment will be supported by the establishment of a Statewide Clinical Senate to provide expert advice on health service planning.

2.4 Clinical service planning findings

A clinical service planning exercise was undertaken for the LGH, to inform the consideration of infrastructure development options for the Masterplan. Many of the recommendations of the LGH Clinical Service Plan report relate to the implementation of new service models, with a focus on changes to models of care, with increasing delivery of care in the community and closer to the home. The recommendations will be considered through the implementation of ***Our Healthcare Future***.

From the comprehensive range of recommendations provided in the LGH Clinical Service Plan report, the recommendations that have direct impacts for infrastructure decisions are detailed in the following tables. These key findings have helped inform the direction of the LGH Masterplan and the proposed major developments. The Masterplan also recognises that the future service model will need to respond to changing needs over time, and therefore that the Masterplan must be flexible, to respond to these future changes.

Click here to read the full clinical service planning reports.

Managing current service pressures

Issue	Findings	Recommendations
Improve care for medical inpatients likely to experience long lengths of stay	Medical inpatients with complex chronic diseases and mental health co-morbidities are at particular risk of extended hospital admissions, which can be associated with poorer clinical outcomes for them and reduced access to services for other patients.	• A secure older persons' unit is established to support the provision of safe and appropriate care for behaviourally complex older medical patients.
Improve access and integration of mental health services	Patients with mental health needs require timely access to services in an appropriate and accessible care setting that has a substantial community-based presence.	• A new purpose-built, mental health facility that co-locates inpatient acute care, community crisis care, and community mental health services is developed, with service integration supported by co-locating Mental Health Services, Alcohol and Other Drug Services and Forensic Mental Health Services.

Priorities for LGH facility improvement

Issue	Findings	Recommendations

Modernisation	The current mental health inpatient facilities (Northside) and the medical ward facilities (D Block) should be prioritised for a complete refurbishment to support contemporary models of care.	• Refurbished wards should include:
		  • support for bedside models of care and line-of-sight monitoring
		  • an increased number of single rooms and isolation rooms
		  • improved air handling and segregation in line with contemporary infection control
		  • flexible shared therapy spaces to support the provision of allied health services and emerging allied health-led models of care
		  • sufficient storage for medical equipment, beds, linen, and medications
		  • pneumatic tube delivery capacity.

Issue	Findings	Recommendations
Expansion	Medical imaging, procedural cardiology, the day procedure unit and pathology should be investigated for service footprint expansion as a priority.	• Increase footprint of Medical Imaging to accommodate a second CT scanner (with capacity to add a third within 10 years); an expanded and improved ultrasound space; a patient waiting area equipped with wall oxygen/suction, emergency call bells, and disabled toilet facilities; and capacity to add a second MRI within five years. • Increase ambulatory capacity for procedural cardiology services. A purpose-built cardiac angiography space that accommodates two suites, located in the Medical Imaging Department or within the surgical theatres complex, may be required to meet increasing demand. • The Day Procedure Unit requires an increased footprint to accommodate a designated admissions area, improve patient flow and expand the current intake and recovery spaces. • Pathology requires additional space for phlebotomy and consultant spaces. Establish satellite sites for blood and sample collection away from the main pathology area in areas of high-demand such as the Holman Clinic. Changes in service profile may change pathology space needs. For example, introducing local stem cell transplant preparation may increase space requirements, while centralising coronial autopsies to Hobart within five years will reduce LGH anatomical pathology and mortuary capacity requirements.
Improved access	The LGH precinct requires improved patient and staff access.	• Increase access to affordable parking close to care, particularly for patients with mobility constraints. • Improve wayfinding within the precinct, especially on the main campus. • Increase access to green space particularly for sub-acute care, palliative care and patient/family waiting areas.

Service improvement and reform

Issue	Findings	Recommendations
Building capacity beyond the walls	The LGH Masterplan provides an opportunity to support service improvement and reform in Northern Tasmania.	• Invest in facilities, infrastructure, and models of care that support quality, patient-centred, integrated care, as close to home as possible. • Maintain the current inpatient capacity of the LGH and build additional capacity through increased community-based services, home-based services, telehealth enabled care, and care-sharing arrangements with other providers. • Investigate opportunities for a co-located private hospital, to help build the local health workforce, sustainably broaden clinical service provision, and increase flexibility in response to local health needs. • Reduce congestion on the main campus site and improve patient access by relocating less time-critical services and functions from the main campus to the outer precinct. • Co-locate services that share patient care groups, to facilitate improved service integration.

3. Infrastructure planning context

The LGH is one of the oldest hospitals in Australia and began operating in 1806 in a convict military hospital tent. On 14 May 1863, a 102-bed hospital facility was opened and named the LGH (located east of Charles Street). Between 1937 and 1942 a replacement hospital was constructed on what is now the Mantra Charles Hotel site. In 1981 the first stage of the 'new hospital' on the current site was completed west of Charles Street.

3.1 Main campus

Since opening, it has undergone several considerable vertical and horizontal expansions:

- 1986 expansion of the Holman Clinic – outpatient Medical Oncology, Radiation Oncology and Clinical Haematology services, including commissioning of three linear accelerators
- 1996 the Queen Victoria Hospital (Maternity) moved to the LGH site
- Between 2009 and 2012 several expansions were implemented
    - Expansion of the Department of Emergency Medicine
    - A new Acute Medical Unit
    - A new Ambulatory Care Unit
    - Expansion of Levels 4 and 5 above the Emergency Department, including ICU expansion and operating theatres
    - The Launceston Health Precinct multi-level car park
    - The Northern Integrated Care Services (NICS)
- In 2018, the expansion of ward 4K and subsequent development of the Charles Street tower

As a hospital that was planned in the early 1980s, the structural grid of the main campus is compatible with the space standards applicable at the time. However, the structure places significant restrictions on any expansion, refurbishment or repurposing of existing departmental areas in relation to both the structural grid and the floor to floor heights. There are particular limitations on expanding inpatient unit capacity. The inflexibility of the precast concrete façade system also restricts refurbishment of existing areas. Any recent refurbishments and vertical expansions have therefore had to work around the existing constrictions and provide a 'best fit' option with compromises to current standards.

The main campus site has now reached a point where there is limited viability or opportunity to further expand without redevelopment of existing building footprints.

3.2 Other buildings

The buildings surrounding the main campus range in age, condition, and suitability for purpose. Some buildings are at the end of their useful life, are expensive to maintain and unsuitable for clinical and support service delivery. Others have received upgrades over time and are fit for purpose and/or could be improved in the short term at an acceptable cost until major developments on the precinct are implemented.

More information on the building stock is available in the draft health facility and architect report.

For those buildings and sites not identified in this Masterplan for repurposing or redevelopment, the Department of Health's strategic asset management plan will determine how these buildings will be used and maintained to support service delivery.

3.3 Facility planning findings

Findings and recommendations from assessment of the design and functionality of the precinct sites and buildings are summarised below and have helped to inform the direction of the Masterplan and the proposed major developments.

Issue	Findings	Recommendations
Inpatient unit modernisation	The floorplate of the inpatient units was built to the relevant standard at the time of construction. To meet contemporary standards of hospital accommodation and enable contemporary models, an expanded footprint is required.	• Increase physical footprint of inpatient units to: - comply with modern standards for hospital inpatient unit - increase percentage of single bed rooms - include appropriate clinical support accommodation (e.g. allied health and pharmacy services) - improve supplies and storage capacity.
Expansion	There is limited space on the main campus to expand and modernise the hospital. The majority of clinical departments on the main campus that require expansion and refurbishment are landlocked with no viable options available to gain additional space needed.	• Unlock the Northside site on the main campus to expand the footprint of the main campus. • Establish a future expansion zone beyond the 20-year Masterplan.
Wayfinding	There are a range of factors that make it difficult for visitors to navigate through the hospital precinct, including lack of main orientation point, fragmented zoning, physical disconnection, lack of distinct visual cues and confusing signage.	• Establish a new heart for the main campus, located centrally in the site and creating a hub where visitors can be provided with facility information and orientate themselves. • Through the circulation system, link up multiple entrances to the new hub. The hub should be spacious to allow for a large number of people and reinforce readability of space. • Create a central movement corridor east to west, south to north with connection to carparks. • Establish dedicated services corridor and services lift system, separate from the visitors' corridor and lift system.
Accessibility	Maximise physical access to the hospital precinct to meet the accessibility needs of consumers, visitors, and staff, and to improve vehicle access and pedestrian circulation.	• Ensure future development plans meet accessibility requirements for consumers, visitors and staff. • Divert traffic away from Charles Street by creating a new front entry and a dedicated hospital drop-off for visitors. • Provide integrated vehicle parking solutions.
Office space	As activity and the number of clinical departments have increased, the number of offices/workspaces for clinical and support staff has not increased.	• Develop an accommodation plan for administrative functions, including assessment of administrative functions that could occur off the main campus to free up space.

Issue	Findings	Recommendations

Maximise use of precinct assets	Some of the buildings and land surrounding the main campus are suitable for repurposing or development to help reduce congestion on the main campus.	• Consider re-using and/or repurposing existing buildings that:
		  • are structurally sound
		  • are compliant or can cost-effectively and readily be made compliant with current building codes
		  • are located so as not to have a negative impact on the achievement of a functional and operationally efficient site
		  • have floor plates and structural grids of a size and configuration that offers flexible accommodation
		  • provide floor to floor heights that can accommodate the planned uses.
		• Make upgrades to the Allambi building to provide additional clinical space until major precinct redevelopment.
		• Maintain the John L Grove and Northern Dental Service for their current use.

Connectivity / integration	Developing clear and distinct zoning across the precinct will help to increase efficiency, ensure important clinical connectivity is maintained and improve wayfinding.	• Group like, compatible, and relatable services and activities (clinical and support) to improve efficiency of hospital departments and strengthen synergising relationships.
Greenspace	Patients, staff and visitors would benefit from connectivity to the natural environment through nature, space, and place – natural lighting and access/views to nature.	• Promote connection with nature into all aspects of hospital design. • Develop a better connection with Ockerby Gardens.
Promote healthy people spaces	Provide staff and visitor amenities and spaces that promote health and wellbeing.	• Promote health and wellbeing through urban design. • Improve end of trip facilities. • Create collaborative working environments for staff and students. • Support learning and research.
Storage	There is a lack of appropriate storage capacity across most clinical departments for essential supplies and equipment.	• Ensure all future developments include an assessment of storage needs and capacity.
Ancillary and support spaces	Ensure ancillary and support spaces are designed to meet the needs of the relevant clinical department, to provide sufficient staff offices and workspaces, and storage for essential supplies and equipment.	• Ensure that future developments consider the clinical department's staffing establishment, to ensure sufficient offices and workspaces. • Develop an accommodation plan for administrative functions, including an assessment of administrative functions that could occur off the main campus to free up space. • Ensure all future developments include an assessment of the clinical department's storage needs, to ensure appropriate capacity to store essential supplies and equipment.

3.4 Service and infrastructure priorities

During the Masterplanning process, additional immediate service priorities that have infrastructure implications have emerged, and these have been considered in the Masterplan.

- A new 10-bed, five-chair coronary care unit
- Relocation of Infusion Services from the Day Procedure Unit
- Establishment of a Neurology Service
- Review of space requirements for Specialist Clinics, noting that at the time of developing the Masterplan, a review of the service models and governance arrangements for Specialist Clinics is underway and the outcomes will inform the final Masterplan

3.5 Planning assumptions and constraints

Service model changes

The physical life and use of the buildings extend over many changes in health policy, practice, technological advances, demographic trends, epidemiological developments, and public expectations. While this Masterplan is designed with some flexibility, it has been informed by recommendations from the clinical service planning analysis and directions of ***Our Healthcare Future***. Both identified the need for additional capacity to be built in the community and home-based care settings to address current and future hospital bed pressures.

There will be a need for additional physical bed capacity while the necessary service changes are made. This physical capacity is provided for in this Masterplan. However, should these service changes not be implemented, significantly more space on the main campus will be required to provide the projected additional bed capacity to contemporary health facility standards.

Co-located private hospital

In December 2017, Calvary Health Care submitted an unsolicited bid to the Tasmanian Government to build a new private hospital, co-located with the LGH. Since the release of the LGH Precinct Masterplan consultation draft, the Tasmanian Government has signed a Memorandum of Understanding (MOU) with Calvary Health Care to accelerate the delivery of their $120 million co-located private hospital on the Viewpoint site adjacent to the LGH.

At the time of publishing the final Masterplan, Calvary is yet to confirm the clinical services it plans to deliver. The Department's negotiations with Calvary Health Care are ongoing, and opportunities for shared infrastructure, clinical and support services will be investigated through this process.

The Masterplan includes the flexibility to respond to changes on and surrounding the LGH precinct. Infrastructure decisions will be based on evidence, and consider the relevant context to ensure that strategic solutions are achieved. This includes investigation of opportunities arising from a co-located private hospital.

Developing on a hospital site

Major refurbishments and expansions of existing hospital sites are complex, expensive and time consuming. They create service disruptions, excessive noise, vibration, and dust which affects all adjacent areas. Extra care is required in the planning phase to ensure that any planned works are appropriately scoped, practical, and achievable. All proposals outlined in this Masterplan are subject to detailed site investigation, feasibility assessments and clinical service planning. They may need to be adjusted or replanned if not considered viable.

4. The Masterplan

Precinct expansion capacity

There are two sites on the LGH precinct that have been assessed as highly suitable for redevelopment. These are underutilised sites with design and functionality constraints that, over time, will be costly and impractical to rectify.

The site on the corner of Charles and Howick Streets, which is currently used for administration and supply activities, offers a prime development site. It is suitable for a new mental health services precinct.

This would allow the acute mental health unit (Northside) to be relocated from the main campus, freeing up the Northside site for a major hospital expansion and modernisation.

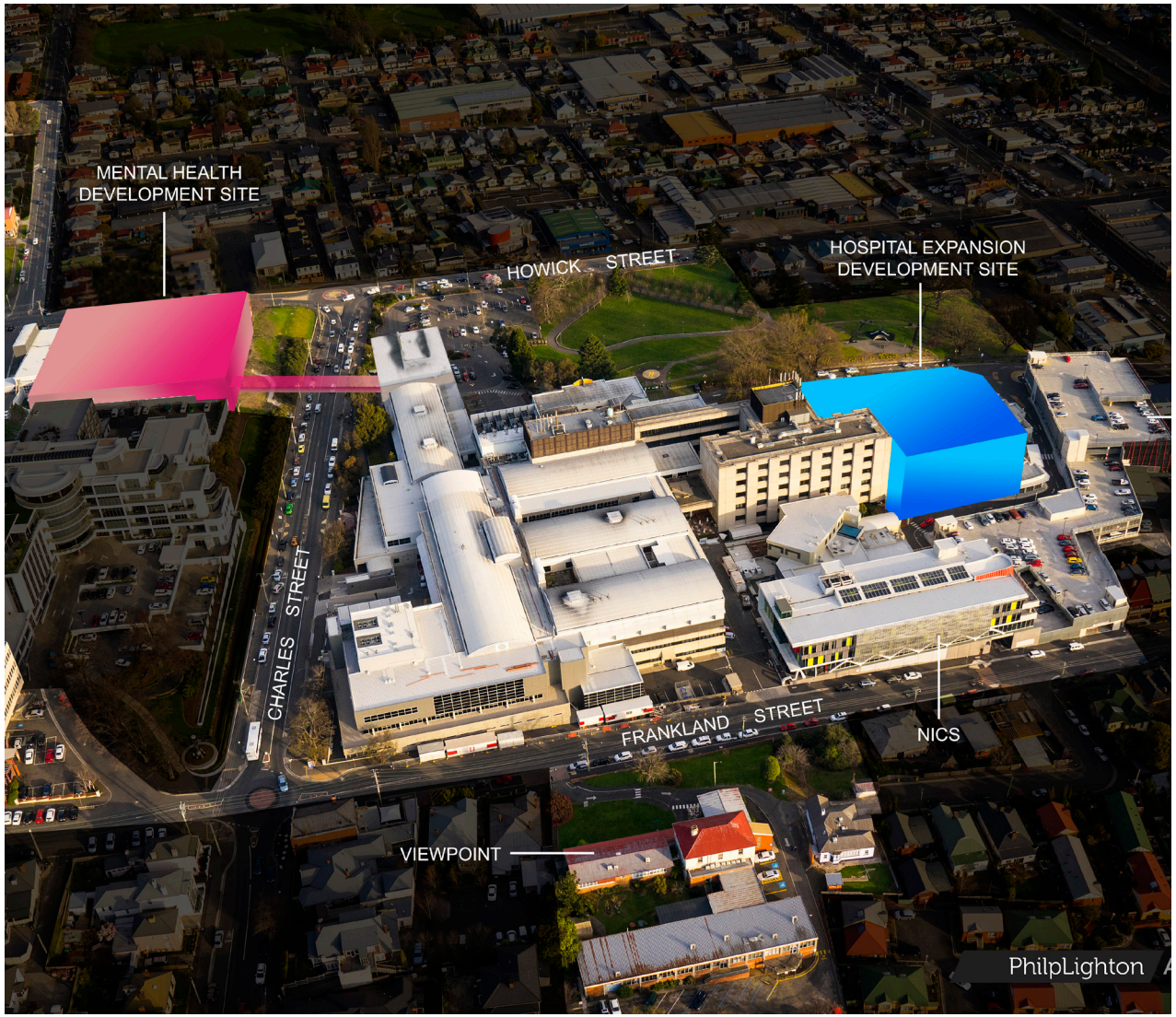


Fig 2. LGH precinct expansion capacity

4.1 New mental health services precinct

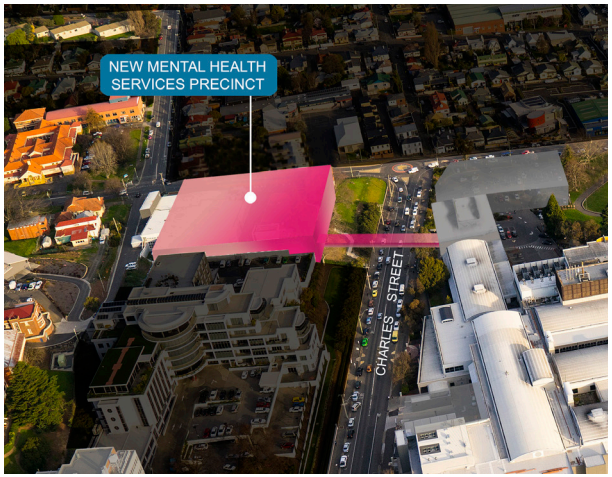


Fig 3. New mental health services precinct

Fig 4. Artist impression of inpatient unit bedroom (concept only)

Fig 5. Artist impression of dining and lounge rooms viewed from nurses' station (concept only)

A new, purpose-built mental health precinct on the Anne O'Byrne site will enable the provision of safe and therapeutic, recovery-oriented care and will be co-designed with consumers and staff. It will be designed to enhance privacy and dignity, with a range of spaces for patient, family, carer and staff use.

The concept plan is an L-shaped facility with two connected buildings. On the Charles Street side would be a ground floor inpatient service with courtyards, single rooms and flexible spaces. The community/outpatient mental health services (child and adolescent, adult, older persons and forensic mental health) and alcohol and other drug services would be provided from the Howick Street side.

The precinct would be directly connected to the hospital via an airbridge, allowing transportation of patients, services traffic, and rapid deployment of the medical emergency team from the main campus (Code Blue) where required. This development consolidates services and staff from several locations on the LGH precinct. It unlocks a prime development site on the main campus to enable expansion and development of the hospital.

4.2 New tower on the main campus

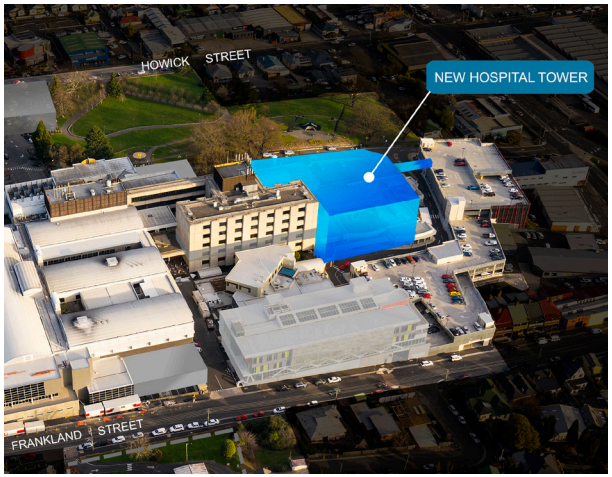


Fig 6. New hospital tower development

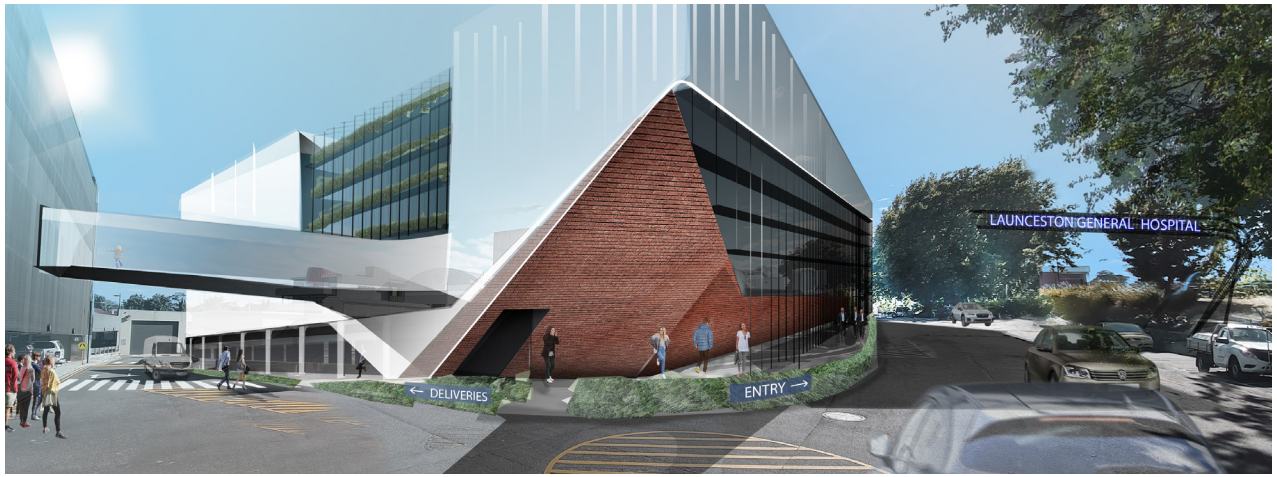


Fig 7. Artist impression of new Northside tower site from Cleveland Street (concept only)

The Northside site represents a major development opportunity and is the key to unlocking space for expansion on the main campus. The area occupied by Northside is currently underutilised, housing one mental health ward of 20 beds with a small administration area on the level above. R Block, which accommodates allied health offices and orthotics/prosthetics on Level 2 and the rehabilitation ward on Level 3, is also underutilised and requires extensive refurbishment. The area can potentially deliver an additional 12,000m² of total floor area to the hospital.

The concept plan for the Northside site is a seven-storey tower with direct access to the existing main LGH internal circulation (main street), with large and flexible floor plates on the existing main campus site. It would connect to the existing inpatient unit tower (D Block), which would be refurbished and expanded to increase the number of single rooms, without reducing the number of overall beds in the ward. The Northside tower would also be expanded southward towards the Ockerby Gardens to enable a second inpatient unit ward on each floor of the tower. The acute rehabilitation ward would be located directly above the new inpatient ward for medical patients with complex behaviours on Level 3. The new building would provide for expansion of Cancer Services on Level 1 and Allied Health Services on Level 2. Space for outpatient clinics and/or a primary health hub (supporting new models of multidisciplinary integrated care for people with complex chronic conditions) could be provided on Level 3 of this development. A pedestrian link from the Northside tower direct to the existing hospital main east-west street and to the multistorey car park would be included in this development. More detailed concept floor plans for the Northside tower are available in the draft facility planning and architect reports.

4.3 New older persons inpatient unit

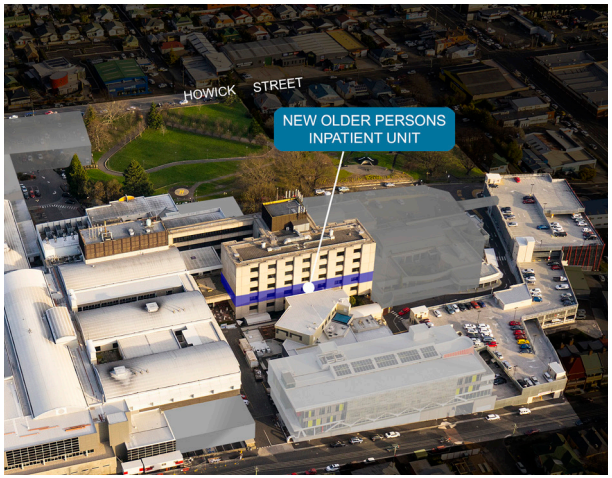


Fig 8. New older persons inpatient unit

Fig 9. Artist impression of new older persons inpatient unit (concept only)

The refurbishment of Ward 3D will create additional inpatient capacity. It will be designed as a dedicated and purpose-built inpatient unit for the care of older patients with complex behavioural needs (e.g. dementia and delirium). This ward currently accommodates a temporary inpatient ward to support the Tasmanian Government's commitment to increase elective surgery.

Medical patients who are older, and who have complex chronic diseases and mental health co-morbidities, have special needs. The LGH does not currently have a fixed medical home in the hospital with the necessary infrastructure to enable best practice care for these patients. These patients are at particular risk of extended hospital admissions, which can be associated with poorer clinical outcomes for them and reduced access to services for other patients. With an ageing population, these additional beds, specially designed to contemporary standards, are critical to the care of older patients and to the overall functioning of the hospital.

The new unit would be designed to meet Australasian Health Facility Guidelines for the care of older patients, including:

- a homely environment to assist with orientation and comfort
- physically distinct but flexible 'pods' of beds, each with their own dedicated support areas that can be deployed by clinicians to meet the differing care needs of patients
- dedicated outdoor activity and exercise areas, designed to allow patients to wander safely
- a generous number of activity and shared therapy rooms, preferably with external outlook
- visitor/family amenities
- staff work areas, meeting rooms and amenities to support multidisciplinary assessment and treatment plans.

Generally, shared rooms are not recommended. However, within the floor-plate size limitations of D Block, a maximum of 17 beds split into an 8-bed pod and a 9-bed pod can be achieved if four of the bedrooms were shared 2-bed rooms. Future expansion of the unit is included as part of the Northside tower development, providing an additional 9-bed pod, for a total of 26 beds in this unit.

4.4 New hospital entry

Fig 10. New hospital entry development

Fig 11. Artist impression of new hospital drop-off and entry at Cleveland Street (concept only)

There will be a new primary hospital entry point accessed from Cleveland Street. This will be the main public drop-off and pick-up point. A new landscaped forecourt will connect the area to the hospital main entry, which will directly lead into the centre of the hospital. The Charles Street entry will be redesigned and will include a dedicated ambulance and public access point for the emergency department.

The new centre of the hospital will include the hospital kiosk, a new main reception/ information desk and new seating area. Internal hospital 'streets' will be established that span from the central heart of the hospital to simplify visitor circulation inside the hospital and improve wayfinding.

- To the east, the internal street will connect to the existing Charles Street entry and the outpatient unit of the Charles Street tower.
- To the west, a new link-bridge will span over the road to connect into the existing multistorey carpark.
- To the north, the centre of the hospital will expand down to Level 2 and create a new Frankland Street entry. The connection from Level 3 to Level 2 will be marked architecturally by a generous central staircase and a double height internal streetscape, stretching all the way to the new Frankland Street entry.
- To the south, the new landscaped forecourt along Cleveland Street will provide a visual and physical connection to Ockerby Gardens, encouraging use of this vast green space by staff and visitors.

4.5 New administration and learning hub

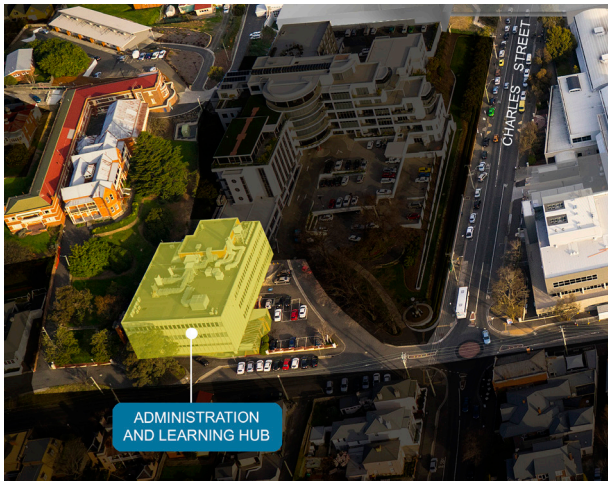


Fig 12. New administration and learning hub at 39 Frankland Street

Fig 13. Breakout and collaboration space (CH Smith building, Launceston)

The 39 Frankland Street building provides an excellent opportunity close to the hospital to consolidate and expand clinical administration, education and meeting facilities. As a teaching hospital, spaces to support multidisciplinary learning and collaboration activities are critical, but congestion and social distancing requirements prevent this from being fully supported on the main campus. There are also various hospital administrative functions that are suitable to be drawn away from the main campus into a central zone to help free up space for essential clinical functions.

A full refurbishment of 39 Frankland Street will be undertaken to create a dedicated administration and learning hub. This will include:

- relocation of the nursing education unit and simulation centre as part of a purpose-built, flexible use facility to support education and training activities for clinical and support staff
- flexible-use meeting facilities with audio visual and other technologies
- a new administration hub, using open plan office design principles with a range of quiet and collaboration zones, consistent with Tasmanian Government office accommodation fit-out guidelines.

4.6 Clear zoning

Consolidation of outpatient, inpatient and clinical zoning allows flexibility in the management of the hospital, enables future expansion, and assists wayfinding for visitors. Distinct, clear zoning of hospital departments will be established vertically or horizontally and aligned to the hospital circulation corridors.

- Surgical zone (horizontal): operating theatres, day procedure unit, admissions, recovery, short stay and inpatient units (IPUs), and staff work areas and amenities all consolidated on Level 5
- Inpatient zone (vertical): medical and surgical inpatient units in a single tower (D Block and Northside tower) providing future flexibility in the management of beds based on changing caseload and clinical services profile
- Emergency and critical care zone (vertical and horizontal): emergency department, medical imaging and coronary care unit (CCU) on Level 3 and intensive care unit (ICU) on Level 4
- Women's and children's zone (vertical and horizontal): birthing, neonatal care, women's inpatient unit, paediatric inpatient unit on Level 4 and outpatient services in Charles Street tower
- Outpatient and allied health zones will be created in several locations to support relevant clinical services
- Back of house/hospital service zone (vertical): hospital services, pharmacy and loading dock consolidated on Levels 1 and 2

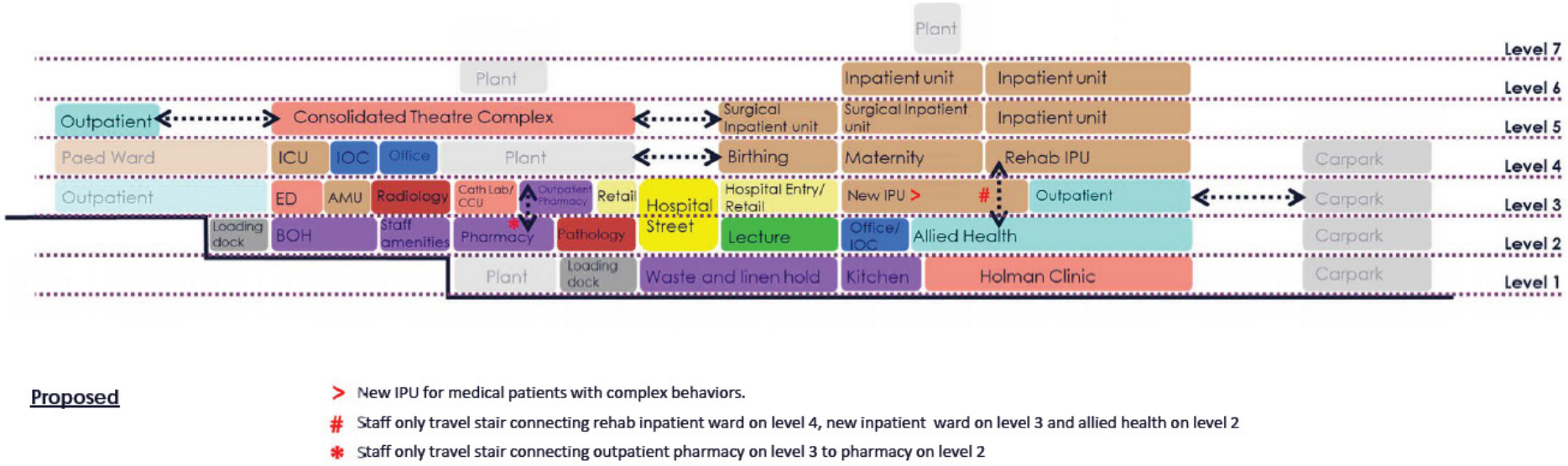


Fig 14. LGH precinct, cross-section view of clinical zones

4.7 New coronary care unit and medical imaging expansion

A new 10-bed, 5-chair coronary care unit will be established as part of the expansion and redesign of the Medical Imaging unit on Level 3 of the main campus. This will be a staged refurbishment, with the first stage being the construction of an extension over the existing services driveway along Frankland Street to accommodate the coronary care unit. Two cardiac catheterisation (cath) labs, with associated support and recovery spaces, will be included in the expansion and redesign.

The Medical Imaging department will be expanded and redesigned to accommodate an additional CT scanner using space vacated by the Nuclear Medicine department. The future relocation of the day procedure unit as part of the operating theatre consolidation on Level 5 will provide more space for future expansion, including an expanded and improved ultrasound space; a patient waiting area equipped with wall oxygen/suction, emergency call bells, and disabled toilet facilities; and capacity to add a second MRI.

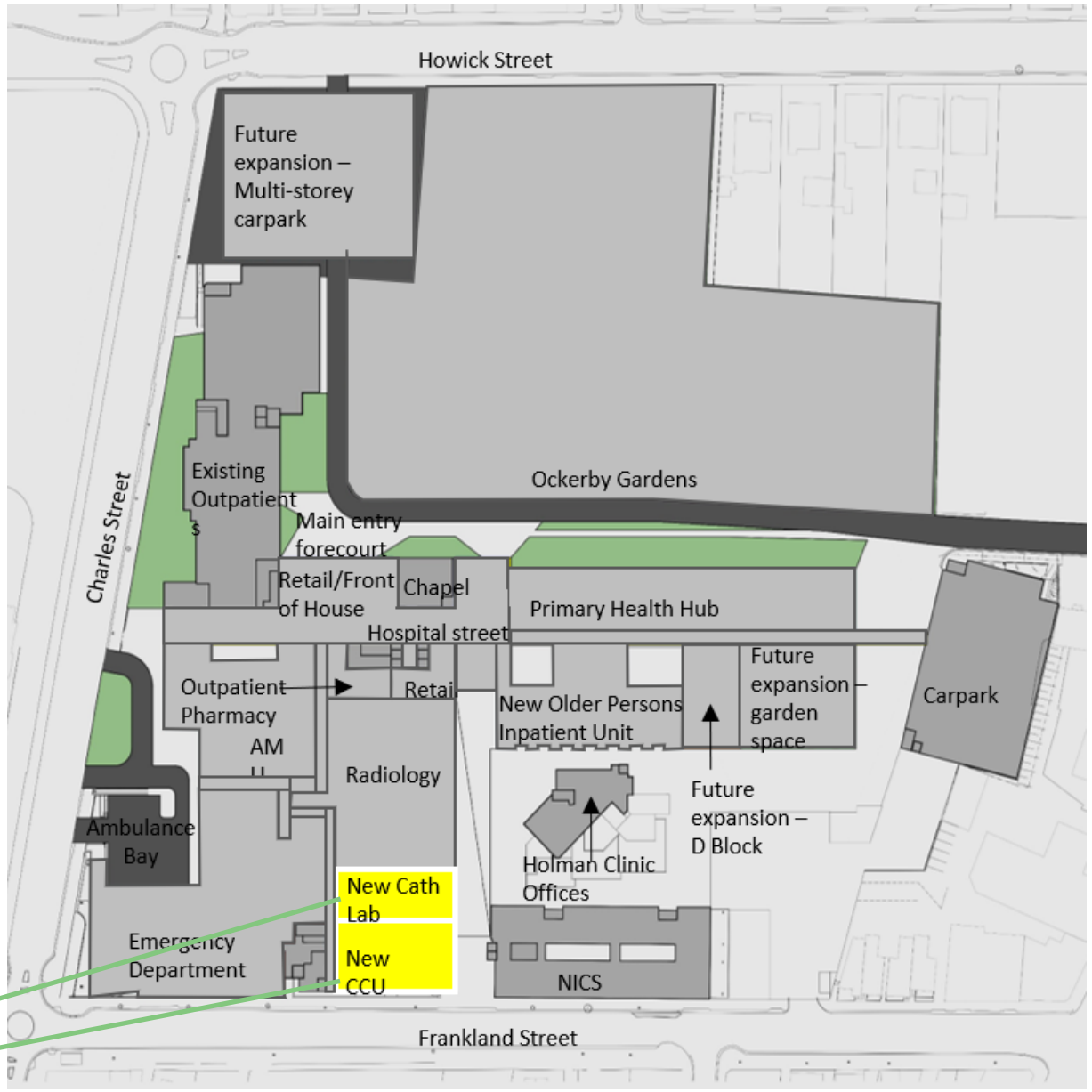


Fig 15. Level 3, new coronary care unit and medical imaging expansion

4.8 Improved access to ED

The Masterplan will improve access and design of the ED in the following ways:

- Redesign of the ED airlock
- Redesign of ED ambulance and patient drop off to provide separate zones for ambulances and patients.
- Lengthened visitors' drop-off from Charles Street allowing two lane driveways, with one of the lanes dedicated for drop-off
- Reorganised ambulance parking bay with a separate entry and exit driveway allowing one-directional travel and additional ambulance bays
- New ED waiting room, with separate waiting areas for children, adults, and people in acute psychological distress
- Better physical and visual separation of the ambulance triage bays from the public area
- Better external pedestrian pathway linking the ED entry from the Charles Street entry
- Better internal corridor connection with the central heart of the hospital for visitors
- An additional bank of dedicated service lifts for patient transportation to ICU, theatres, and the wards

4.9 More carparking

The existing carpark on the corner of Howick and Charles streets could be upgraded to a multistorey carpark as part of a comprehensive car parking plan for the precinct.

4.10 Integrated landscaping

The new Cleveland Street entry allows an opportunity for the hospital to reconnect with Ockerby Gardens. The Masterplan has also introduced new landscaping at the Charles Street entry forecourt of the hospital and rooftop landscaping for staff, visitors, and patients to enjoy without venturing outside the main hospital building.

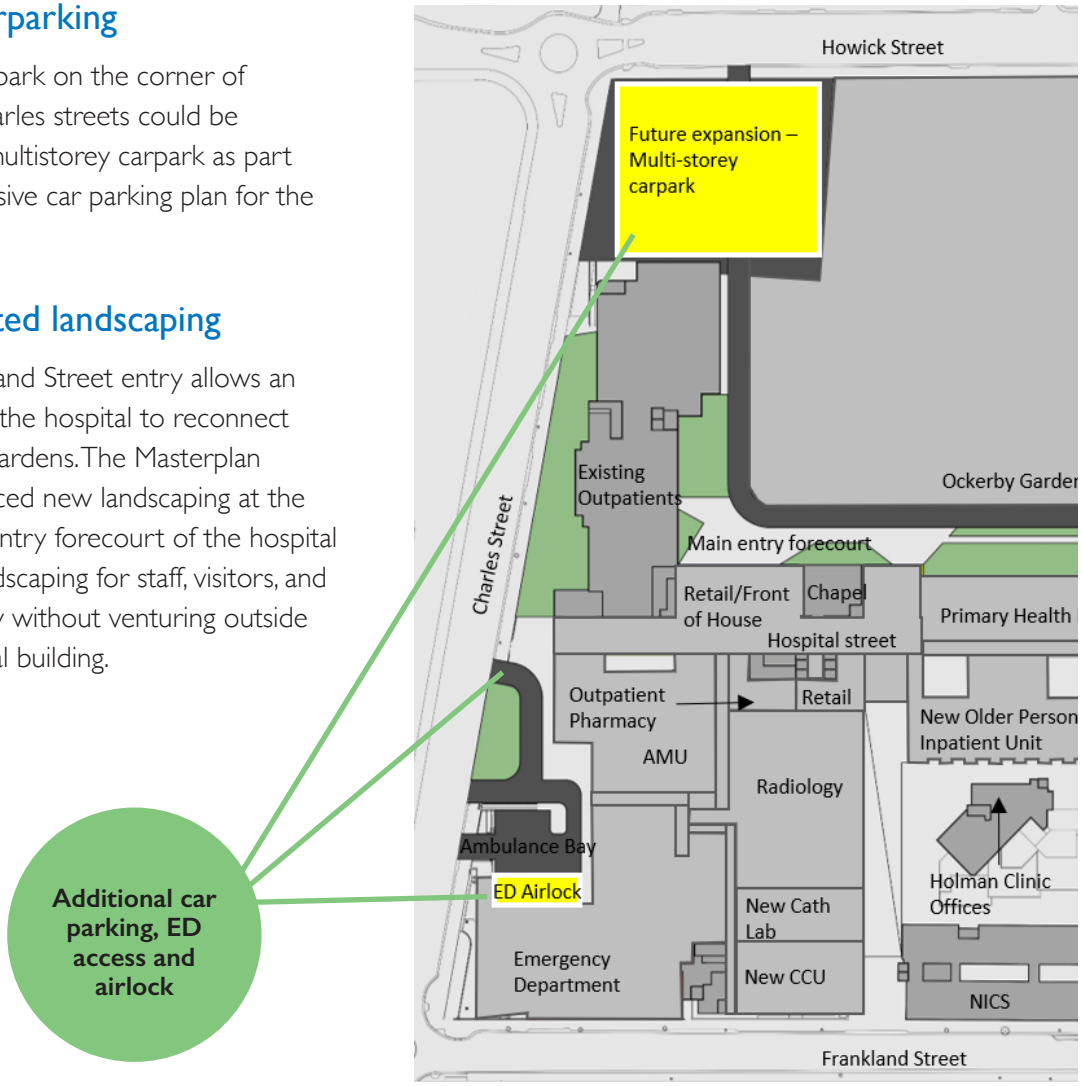


Fig 16. Level 3, improved access to Emergency Department and additional carparking.

4.11 Consolidated surgical services zone

Level 5 will become the consolidated theatre complex. The new department will include day surgery services, the Surgical Short Stay Unit, and theatre supports such as change rooms and offices that are currently located on Level 4.

The relocation of day surgery services will allow sharing of resources, recovery bed bays and theatre supports such as the Central Sterilising Services Department (CSSD). The proposed relocation provides opportunity to create new theatres and to assign smaller existing theatres to day surgery cases instead. It also provides an opportunity to expand the CSSD.

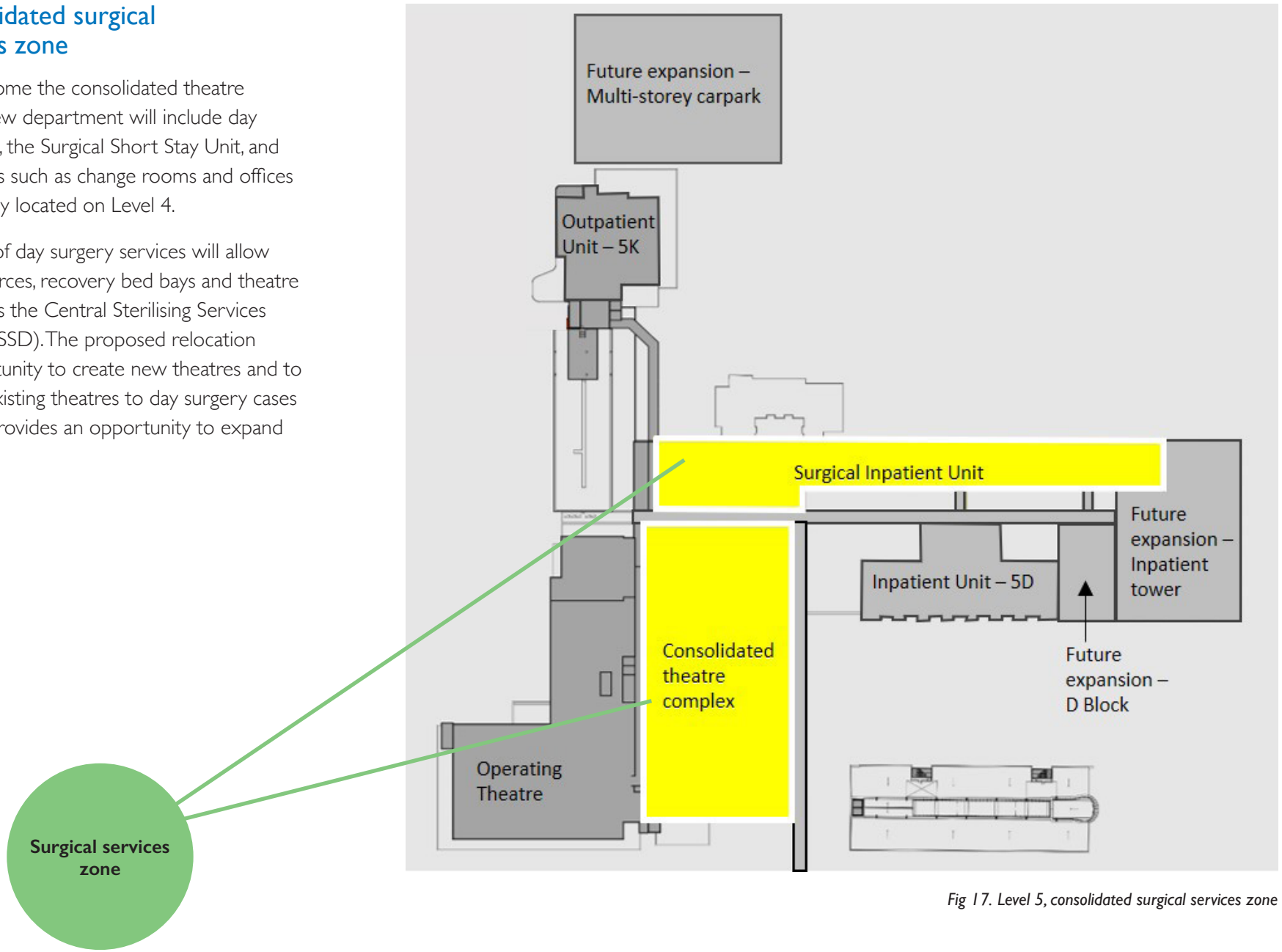


Fig 17. Level 5, consolidated surgical services zone

4.12 Women's and Children's services zone

The Women's and Children's zone will be developed in three phases. It will augment the capital works already underway to expand the paediatric inpatient unit and create a new outpatient zone for women and children in the Charles Street tower.

In the first phase, the Women's and Children's administration unit would be relocated into the space currently occupied by paediatric allied health services, freeing up space for the Pregnancy Assessment Clinic (PAC) to be relocated close to the birthing suite.

Expansion of the maternity inpatient unit would occur as part of the new Northside tower development, on the same floor and connected directly into the existing birthing unit.

The third phase allows a gradual refurbishment of the existing birthing and maternity wing into a new birthing unit, a new special care nursery (SCN) and a new neonatal intensive care unit (NICU) while the unit maintains its functionality.

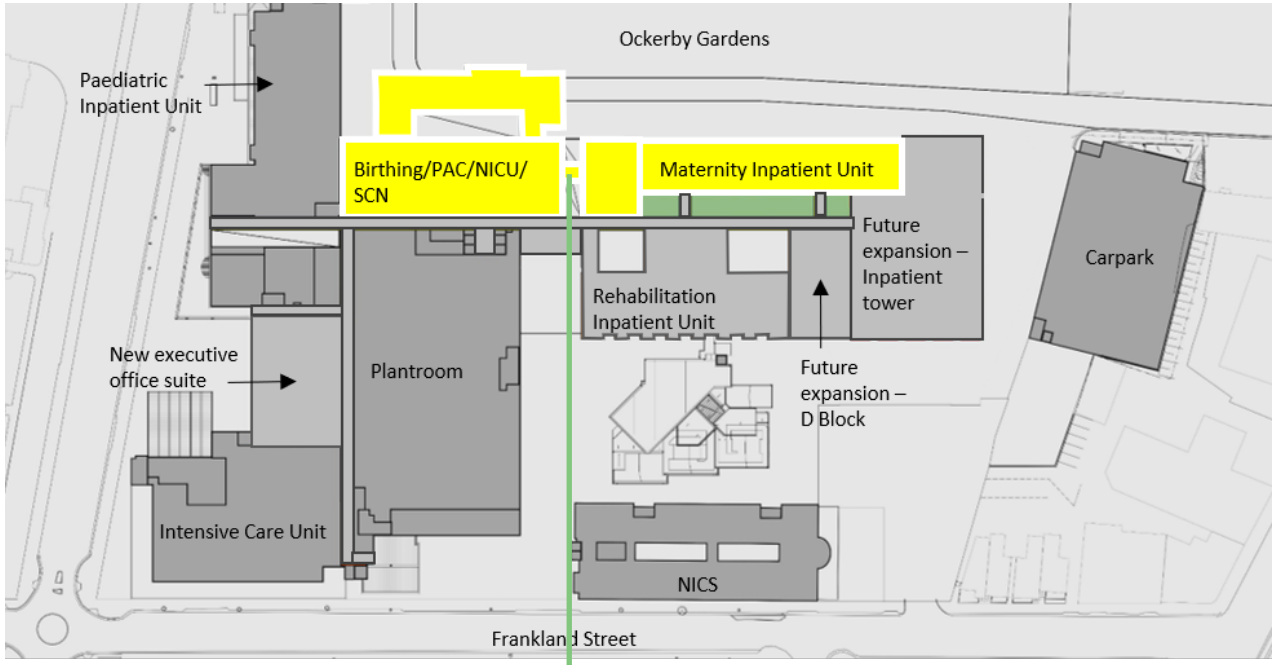


Fig 18. Level 4, Women's and Children's services

Women's and Children's services

4.13 New primary health hub

A new primary health hub will be established on Level 3 of the hospital in the new outpatient wing currently occupied by the R block. This hub could be used as the home base for new integrated care service models and other community and home-based care models.

The hub is located conveniently at the new main entry of the hospital and is connected directly to the hospital carpark via the new link-bridge, facilitating convenient access for patients and visitors.

It is located on a different floor to allied health services, allowing a service separation that is clear to visitors but also in close proximity, to allow cross-disciplinary communications and assistance where required.

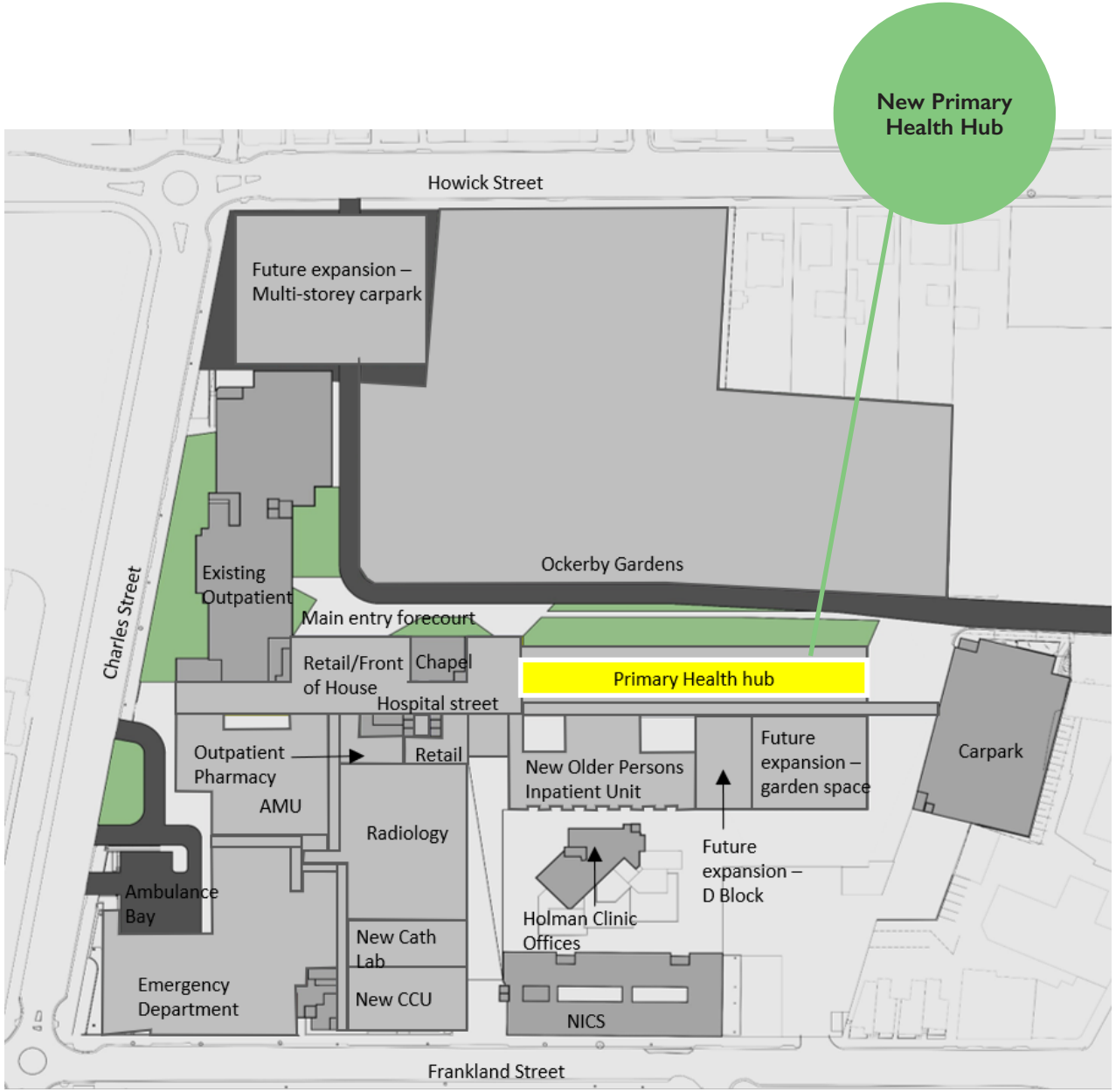


Fig 19. Level 3, new primary health hub

4.14 Pharmacy expansion

To enable the redesign of the main entry and to accommodate future service needs, the hospital pharmacy will be relocated to Level 2 and expanded. The main pharmacy would be connected directly to an outpatient pharmacy service on Level 3, located near the hospital main entry near the outpatient departments. It would be supplied from either the Level 2 or Level 1 loading dock, depending on the size of delivery trucks and hospital management of the loading dock.

The department would also be accessible via staff restricted corridors, improving security to the unit, and would allow for sufficient expansion space in the future for adoption of robotic equipment in the pharmacy workflow if required. Relocation of the offices from Level 2 allows for new stores that are also soft spaces for future expansion of the Pathology department beyond the Masterplan if required.

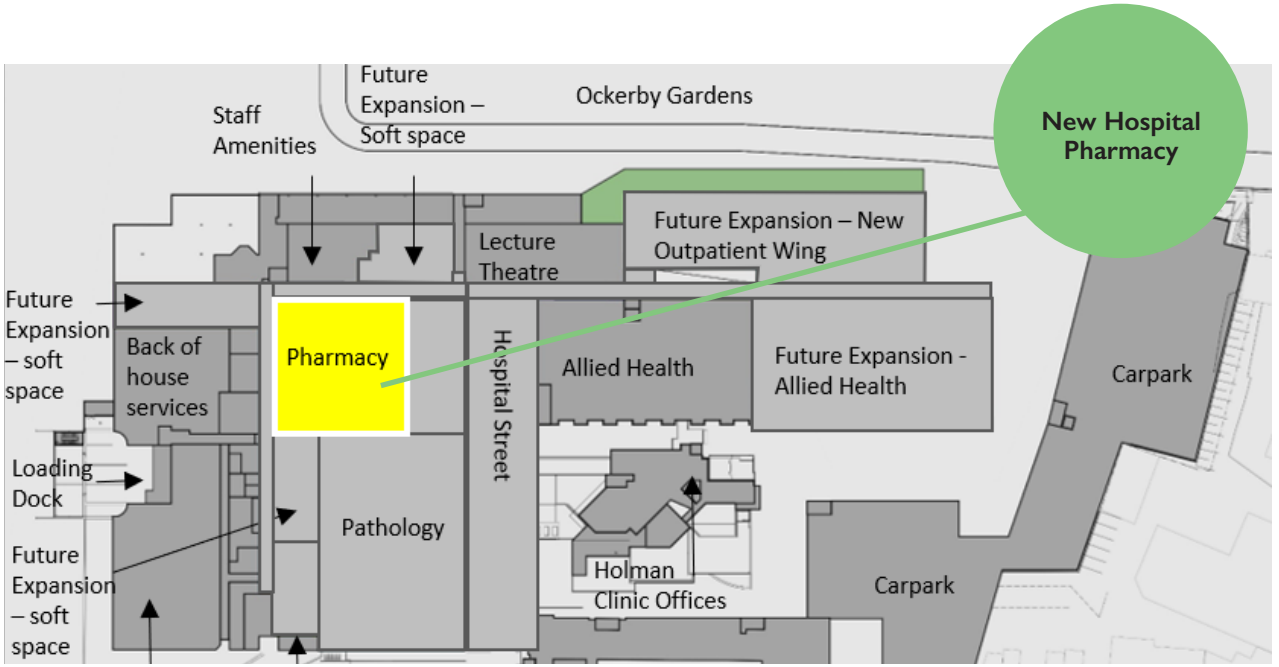


Fig 20. Level 2, new pharmacy department

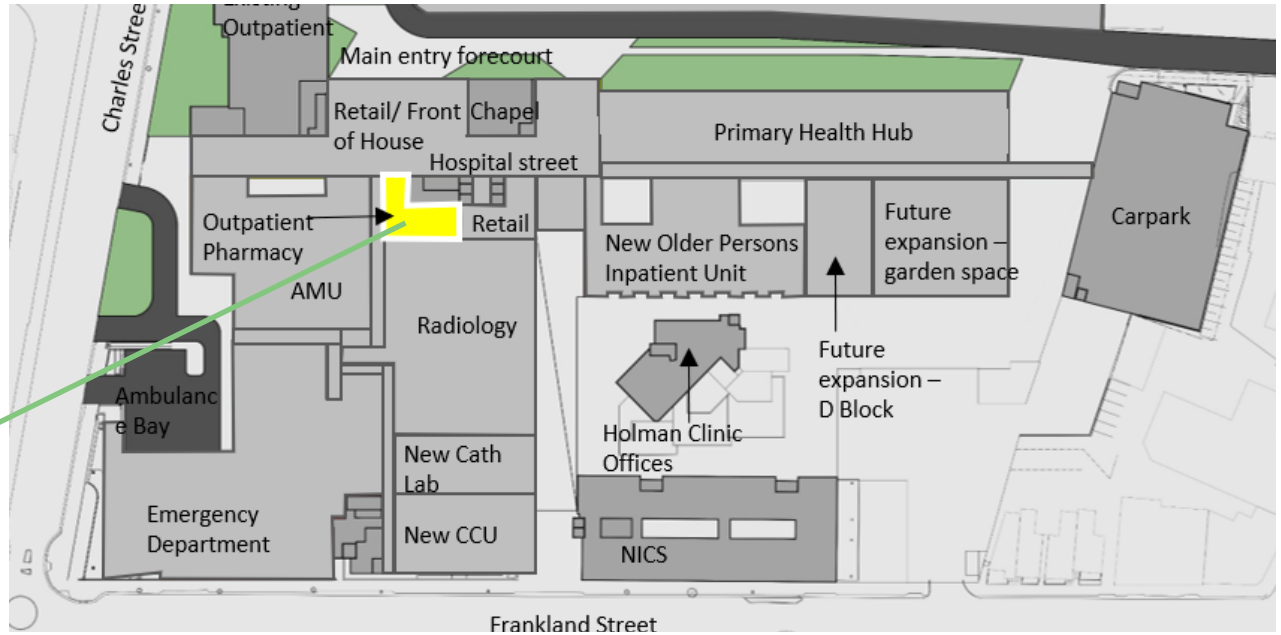


Fig 21. Level 3, Outpatient pharmacy service in new front of house development

4.15 Pathology, allied health and cancer services future expansion

Future expansion space for Pathology, Allied Health and Cancer Services is provided for in their current locations on Levels 1 and 2 as part of the new tower development on the Northside site.

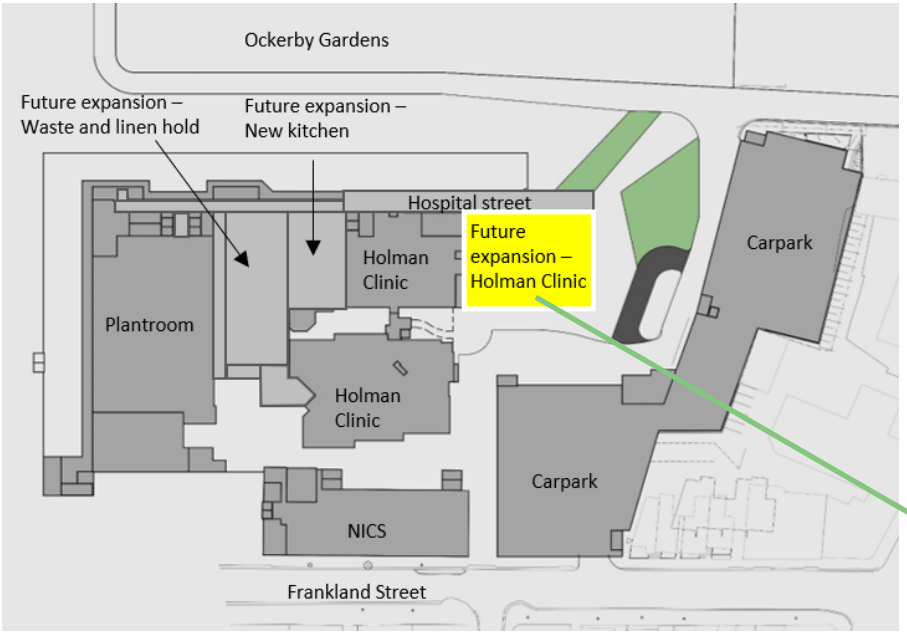


Fig 22. Level 1, Cancer Services expansion

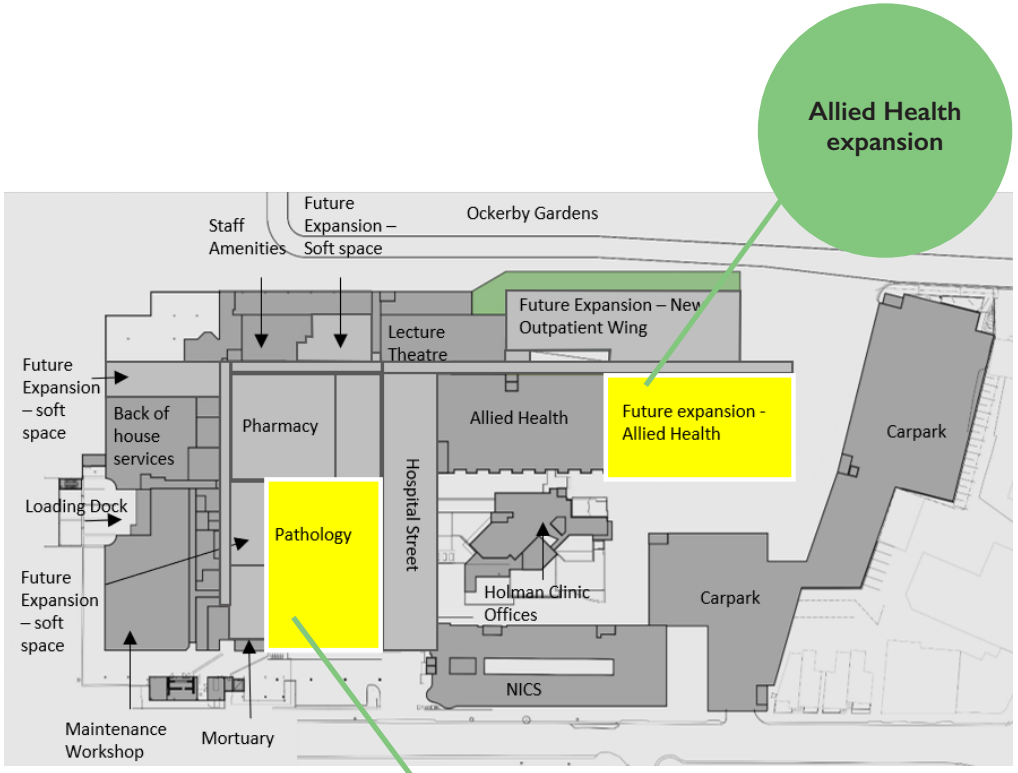


Fig 23. Level 2, Pathology and Allied Health Services expansion

4.16 Consolidated back of house / hospital service zone

As part of the new clinical zoning, consolidated back of house/service zones on Levels 1 and 2 will be created. The zone would include a unified and expanded hospital loading dock, a consolidated waste management department, sufficient linen holding facilities and a new pharmacy.

The existing kitchen would be relocated off site, leaving a smaller kitchen on Level 1 to service the café and to provide limited onsite services.
The existing kitchen would then be demolished to allow for:

- an expanded Level 1 loading dock
- waste holding facility with compactor and sufficient bin holding spaces
- holding facilities for both soiled and clean linen.

The loading dock would have sufficient space for trucks to manoeuvre, to enable forward in and forward out motions for large trucks. Traffic control signal and devices would be required to manage the bottleneck along the existing bunkers.

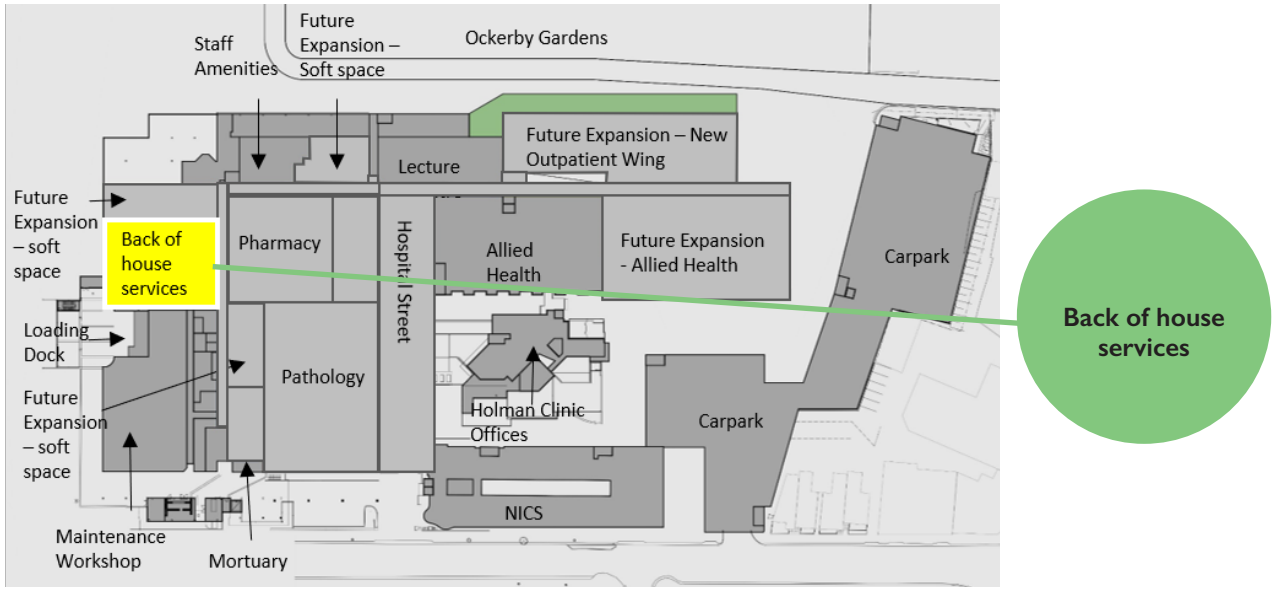


Fig 24. Level 2, Consolidated back of house

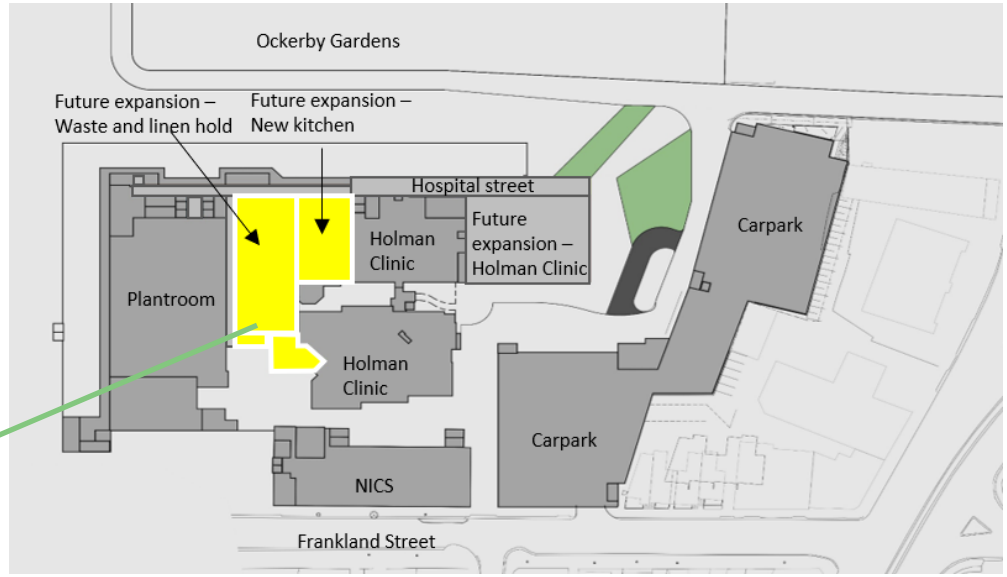


Fig 25. Level 1, Consolidated back of house

4.17 Executive offices and Department of Medicine relocation

To facilitate the new front entry, foyer, and retail space, the existing Executive Office suite would be relocated to Level 4 (currently Department of Surgery).

The Department of Medicine would also be relocated to this new office suite from Level 2.

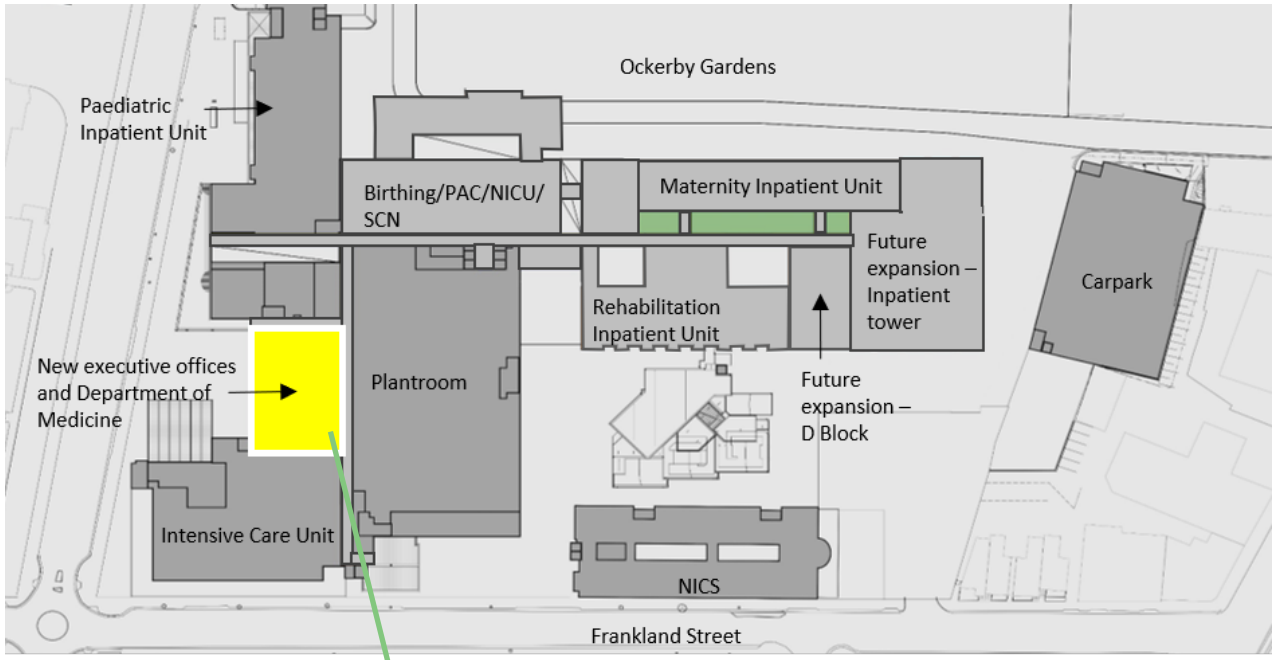


Fig 26. Level 4, Executive Office suite and Department of Medicine

5. Implementing the Masterplan

Implementing the vision for the development of the LGH precinct outlined in this Masterplan, requires careful planning, and the involvement of consumers, staff, other service providers and our partner organisations. It is important that all development works are supported by thorough planning, to minimise disruption to service delivery and impacts on patients and staff.

5.1 Implementation planning

Each new development will go through a rigorous planning process and will be informed by:

- Service planning and model of care development to tell us what the future service need is, based on demographic projections and research on contemporary models of service delivery
- Site investigations to understand the options for development, and any constraints or critical issues specific to the site that may impact on construction
- Stakeholder input and advice to understand the needs and experience of those that receive and provide care
- Assessments of service, staff and patient impacts to understand the likely impacts on service delivery and to identify how these impacts can be managed
- The Australasian Health Facility Guidelines and other industry standards to ensure that we deliver health facilities that meet current best practice standards.

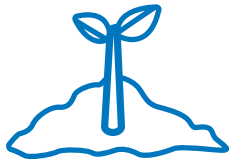
Through this important planning, we may identify service, infrastructure or logistical issues which impede our ability to implement the developments in the way we have outlined in this Masterplan. This is an important part of the planning and scoping process and where this happens, we will work with stakeholders to adjust our plans. Service continuity and patient safety remain the drivers for all infrastructure planning decisions.

5.2 Implementation phases

The Masterplan includes a number of foundational projects which are underway, and a series of refurbishments and major expansion projects to address identified service priorities and create additional space for the next stages of development.

Complete foundational projects

- Install 9 negative pressure rooms in the Acute Medical Unit
- Complete fitout of Levels 3 and 5 of the Charles Street Tower for women's and children's outpatient services
- Deliver a new central processing unit
- Redesign the Emergency Department airlock.



Create the space to grow

- Construct a new Mental Health Services Precinct
- Complete fitout of new administrative and learning hub at 39 Frankland Street
- Relocate Clifford Craig Foundation to the NICS building.

Address service priorities*

- Establish a new Coronary Care Unit
- Redesign and expand Medical Imaging
- Emergency Department design upgrade
- New facilities for Neurology Services
- Install additional negative pressure rooms in the Acute Medical Unit Relocate Infusion Services from the Day Procedure Unit
- Refurbish Ward 3D as a dedicated and purpose-built older persons inpatient unit.

Expand and modernise the hospital*

- Construct new tower on the Northside site
- Create new hospital front entrance
- Create functional zoning
- Other expansions and improvements (including establishing consolidated theatre complex, expanding and improving inpatient units, expanding Pharmacy, Pathology and Holman Clinic, consolidating back of house services).

**The order and timing of these projects is not yet determined, and will be established as part of a detailed staging plan for implementation of the Masterplan, which will consider:*

- *Service needs and priorities*
- *Funding*
- *Opportunities arising from the co-located private hospital and any other external factors*
- *Decanting solutions including how to maintain infection control procedures and service continuity*
- *Any interim works that may be required during the life of the Masterplan*
- *Change management needs to support projects.*

Phases	Description	Delivery phase	Outcomes/benefits
 Complete foundational projects	Install 9 negative pressure rooms in the Acute Medical Unit	Construction	• Increase the number of rooms in the LGH for the isolation of patients with contagious, airborne diseases such as measles, tuberculosis, SARS, MERS, and COVID-19.
	Complete fitout of Levels 3 and 5 of the Charles Street Tower for women's and children's	Construction	• Expand and modernise consultation and therapy rooms to support contemporary models of care for paediatric outpatient services, paediatric allied health (inpatient and outpatient services), maternity outpatient services and gynaecology services.
	Deliver a new central processing unit	Construction	• Upgrade facilities for equipment sterilisation to support implementation of changes to Australian standards.
	Redesign the Emergency Department airlock	Scoping	• Enclose the Ambulance drop off bays to the Emergency Department to improve patient privacy and comfort.
 Create the space to grow	Construct a new Mental Health Services Precinct	Early planning and scoping	• Provide purpose-built mental health facilities to enable the provision of safe and therapeutic, recovery-oriented care and will be co-designed with consumers, carers and staff. • Maximise use of existing LGH land and buildings. • Free up the Northside site for a major hospital expansion and modernisation.
	Complete fitout of new administrative and learning hub at 39 Frankland Street	Construction	• Improve facilities to support education and learning for health professionals and support service staff. • Free up the space on the main campus for essential clinical functions. • Maximise use of existing LGH land and buildings.
	Relocation of Clifford Craig Foundation	Concept	• Provide a designated home for the Clifford Craig Foundation within the Northern Integrated Care Service Education and Research Precinct. • Free up critical space on level 5 of the main campus for essential clinical functions.

Phases	Description	Delivery phase	Outcomes/benefits
Address service priorities	Establish a new Coronary Care Unit	Concept	• A new coronary care unit, cardiac catheterisation (cath) lab, with associated support and recovery spaces, will improve facilities for patients and staff, and will enable projected future increase in demand for these services.
	Redesign and expand Medical Imaging	Concept	• Improve facilities for patients and staff, and will enable projected future increase in demand for these services.
	Emergency Department design upgrade	Concept	• A redesigned Emergency Department will improve waiting areas, patient and visitor privacy, amenities, flow through the ED, and patient and staff safety and experience.
	New facilities facilities for Neurology Services	Concept	• Improve facilities to enable contemporary models of care, improved patient and staff, and will enable projected future increase in demand for these services.
	Install additional negative pressure rooms in the Acute Medical Unit	Concept	• Increase the number of rooms in the LGH for the isolation of patients with contagious, airborne diseases such as measles, tuberculosis, SARS, MERS, and COVID-19.
	Relocate Infusion Services from the Day Procedure Unit	Concept	• Delivers additional space for the Day Procedure Unit and a dedicated, fit for purpose facility for Infusion Services.
	Refurbish Ward 3D as a dedicated and purpose-built older persons inpatient unit	Concept	• Delivers a dedicated and purpose built inpatient unit to enable best practice care for older patients with complex needs (e.g. dementia and delirium). • The unit will be designed to provide a homely environment to assist with orientation and comfort, and include dedicated outdoor activity and exercise areas, a generous number of activity and shared therapy rooms and improved staff, patient and visitor amenities.
Expand and modernise the hospital	• Construct new tower on the Northside site • Create new hospital front entrance • Create clear functional zoning • Other expansions and improvements (including establishing consolidated theatre complex, expanding and improving inpatient units, expanding Pharmacy, Pathology and Holman Clinic, consolidating back of house services).	Concept	• This major development will unlock space on the main campus for a significant hospital expansion which will: - Enable an increase in physical footprint to inpatient units to meet modern health facility design standards - Provide facilities to meet projected increase in future demand for ambulatory care and outpatient services - Improve patient, visitor and staff amenities - Create space on the main campus for other important facility expansions and upgrades.

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