



DEPARTMENT OF HEALTH
LAUNCESTON GENERAL HOSPITAL MASTERPLAN REPORT
Volume I
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PhilpLighton Architects



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Tasmanian
Government

1. Preamble

The Launceston General Hospital (LGH) Master Plan 2020 has been commissioned by the Department of Health (DOH)

This report is part’s 4 and 5 of a 5-part Strategic Facilities Plan jointly managed by the Clinical Planning Taskforce (CPT) with the Health Departments, Asset management Service (AMS) and the Tasmanian Health Service (THS) Strategy Planning Unit.

Part 1, - The Capacity Analysis,
Part 2, -Building Services and Infrastructure, have previously been completed.
Part 3, – Clinical Services Plan is ongoing and nearing completion.

Each of these reports have informed:
Part 4, - Strategic Facility Planning and
Part 5, - Master Plan, the subject of this report.

Part 1, The capacity Analysis, Summary of Recommendations / Opportunities, reported on 3 priorities

- Priority 1 - Provision of Inpatient accommodation to meet current AHFG guidelines integrated into the existing LGH facility
Priority 2 - Co-Located Private Health Care Facility
Priority 3 - Expansion of Departments

The report also went into considerable detail as to where new & expanded development would be feasible on and adjacent to the main campus.

- Part 2, Building Services and Infrastructure Report reviews the condition of building services,
- Hydraulic, (potable cold, hot, hydrants and hose reels),
 - Electrical, (switchboards, submains, substations emergency power, Fire detection) Mechanical Systems, Extraction Heating Cooling and Air-conditioning and associated plant
 - Fire services, ewis and sprinklers.

The report provides a table that details the level of risk that currently exists, the risk with development, the recommended action, and the likely cost to upgrade.
See 10. Appendix - EST Infrastructure Risk / Cost Matrix

Part 3, Clinical Services Plan
Clinical services plan currently under development.

Strategic Facility Plan Objective

A Strategic Facility Plan provides a framework for development and facility direction. This takes into account changing population demographics, demand on services and the current state of physical assets. As part of beginning this process an outcome goal and assessment criteria should be developed.

Stage	Purpose
Stage 1 – Capacity Analysis <i>(factual & objective analysis – not generally subject to significant change)</i>	To identify and classify by risk the whole of site physical capacity for expansion. Identify opportunities and constraints of current physical asset.
Stage 2 – Building Services and Infrastructure <i>(factual & objective analysis – not generally subject to significant change)</i>	To identify and classify by risk the whole of site building services and infrastructure taking into account its ability to support expansion. To be developed into a comprehensive maintenance/upgrade program.
Stage 3 – Clinical Services Plan and Service Level <i>(based on data analysis and expert advice – can be subject to change in response to political direction, community settlement and demographics, technological development and other external factors)</i>	To identify and develop a future clinical and hotel services plan, this is used to inform the physical space required by clinical departments and support services to meet community demands and expectations as well as support the direction of the current government.
Stage 4 – Strategic Facility Planning <i>(Changes alongside all other stages)</i>	Combine the results of stages 1, 2 and 3 to generate options analysis scenarios for development, to be analysed against pre-determined criteria and a preferred approach to be selected.
Stage 5 – Master Plan <i>(Changes alongside other stages and during realisation of any development)</i>	To generate the preferred option from stage 4 into a series of concept drawings and presentation plans.

Stage	Considerations	Outputs
1	Planning Scheme Physical Asset Capacity Structural Capacity Condition of Assets Configuration of Current Spaces Car Parking Circulation Strategies Potential for land acquisition around site Review of Previous Information & Documents	MBE yield and risk rating MBE Timeframe based on 3 scenarios Potential Policy Impacts on Asset Opportunities and Constraints Analysis Identify Inefficiencies easily addressed Identify best use of Land Resources Strategies for minimisation of Service Disruption Scenario Testing
2	Condition of Plant and Critical Infrastructure <ul style="list-style-type: none">• Utilities (Water, Electricity, Gas)• Medical (Gas, Suction, Essential Power)• ICT and Comms• Technology Integration• Backups & Fail safes Hazardous Materials Capacity for expansion Disaster Recovery (Island Operation) Future upgrades / issues Review of Previous Information & Documents	Audit of existing site Infrastructure Identify issues requiring corrective action Identify areas unable to support future needs Infrastructure Program to support future expansion Program to address disaster recovery 15+ year Lifecycle Maintenance Program Scenario Testing
3	Future Real Demand Current Demand & Trends Changes in Population base (settlement patterns, aging) Ability to deliver services off immediate acute site Departmental Relationships and dependencies Models of Care (National/International Trends) Opportunity to change service model Opportunity for Relocation/Optimisation of services Hotel and Support Services Stakeholder engagement Bed composition & Required Facilities Review of Previous Information & Documents	Functional analysis of current departmental facilities Relationship Diagrams for Whole Site 10-20 year Demand Projection Clinical and Hotel Service Plan Projected space requirements & functional briefs Scenario Testing
4	Maximum Building Envelope Building Services and Infrastructure Phasing & Decanting Requirements Impact on operational hospital Cost & Timeframe Pre-Determined Criteria	Gap Analysis Development Options Creation Selection of preferred option based on Criteria Scenario Testing
5	Preferred Development Scenario Aesthetics & Potential Envelope	3D and 2D Concept Design Drawings

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3. Executive Summary

Hospitals North/North West

Hospitals North/North West is led by Chief Executive Eric Daniels. Services delivered include acute, subacute, outpatient, emergency, primary health care, residential aged care, in-home settings and palliative care.

Hospitals North/North West runs several health facilities including the Launceston General Hospital (LGH), North West Regional Hospital (NWRH) and Mersey Community Hospital (MCH), and 28 District Hospitals and Community Health Centres.

Hospitals North/North West also provides a range of services at community level including allied health, community nursing, home care, palliative care, dementia services, specialised case management services, aids and appliances and health promotion programs. These are generally provided from community health centres and rural facilities, but can also be provided in patients' homes, schools and workplaces.

Launceston General Hospital (LGH) Clinical Snapshot 2020

- The LGH is Northern Tasmania's major Public Hospital.
- The LGH provides acute and sub-acute care for the residents of Launceston and the surrounding areas. It is also the main referral hospital for the North West Tasmanian community.
- The LGH has approximately 321 inpatient beds facility providing clinical services profile that is predominantly level 5.
- The LGH runs a 24 hour Emergency Department with 42 treatment spaces provides approximately 42,800 treatments annually with a 37% conversion to admission rate.
- LGH Currently runs an annual average of 6 Operating Theatres with a co-located Sterilising Dept delivering a total of 8800 elective /emergency operations annually (2019 calendar year)
- The LGH has 11 ICU beds included in the overall bed count with capacity to flex as demand requires and staffing allows.
- The LGH is home of the Northern Cancer service incorporating Medical & Radiation therapy, Brachytherapy, Oncology and chemotherapy.
- Maternity & Neonatal services including 6 delivery suites typically delivering around 30 babies a week.
- A Dedicated Children's ward will have a total of 34 beds including 6 swing adolescent mental health beds when the current capital works are completed
- A Dedicated Mental Health ward (Northside) of 20 beds.
- On a weekday morning the hospital reporting there are in excess of 1550 staff, 800 inpatients and visitors and 150 presentations to the Emergency Department.
- This is in excess of 2,500 people working, being treated or visiting the hospital
- Noting the survey was based on the morning shift with COVID restrictions in place (visiting time restrictions & fewer medical procedures being undertaken)



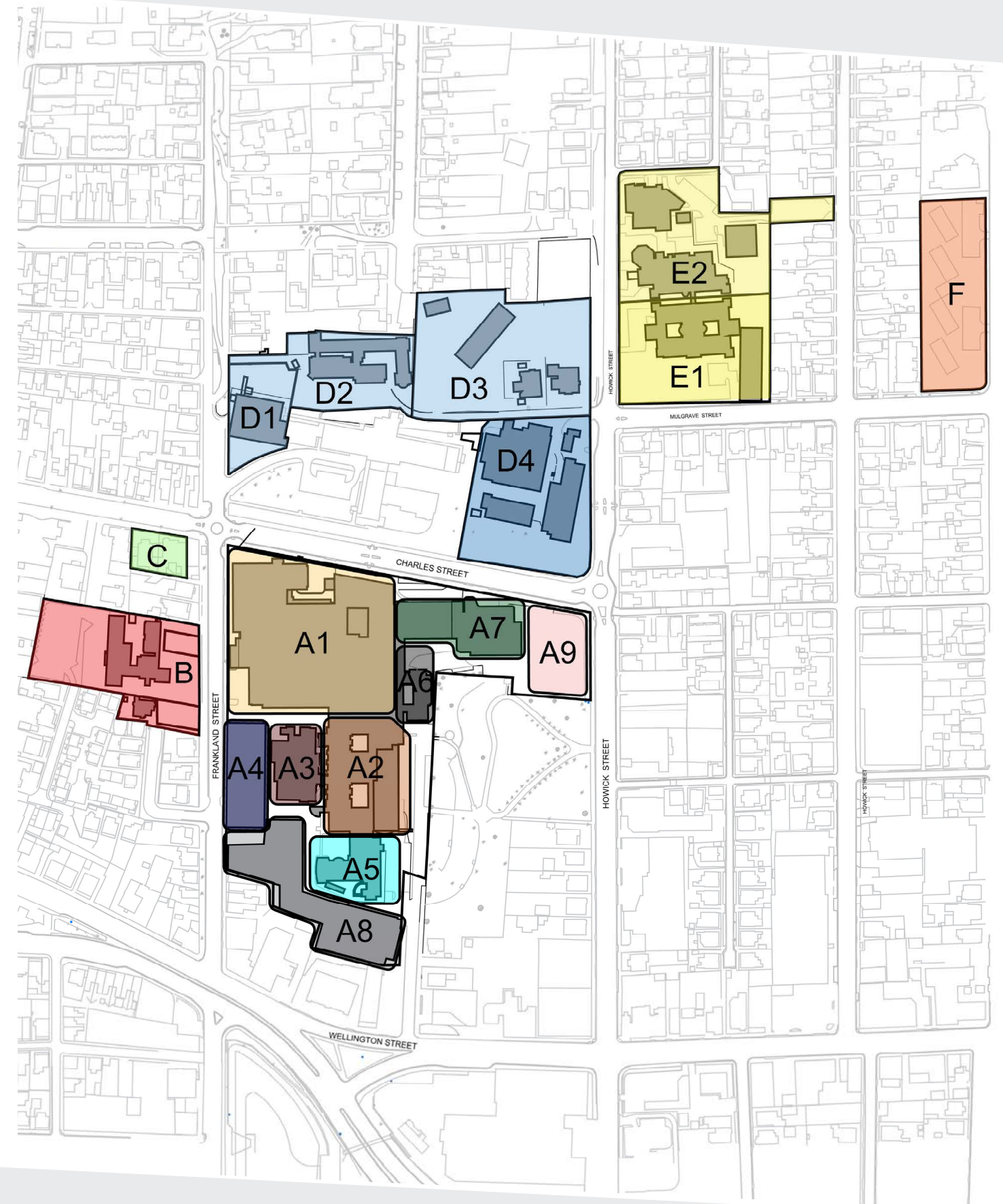
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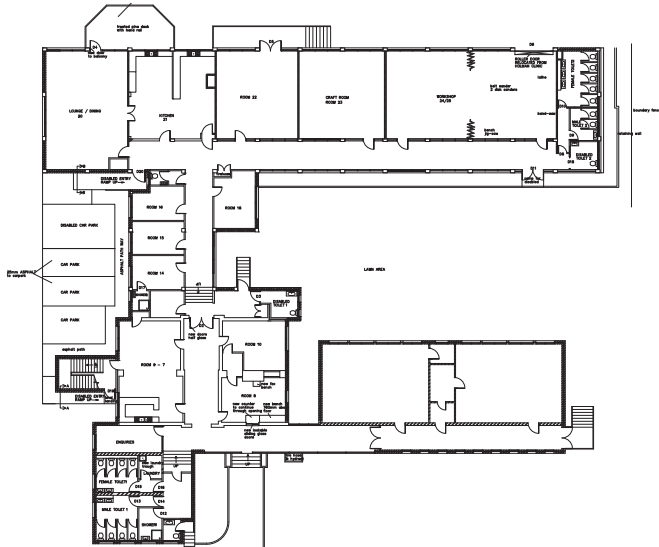
4. LGH Precinct Existing Conditions Report

LGH Precinct

The scope of this master plan is prescribed in the consultant commission brief and includes the LGH Main campus, (Area A) the street block bounded by Frankland and Charles Street, Ockerby Gardens to the South and the surrounding precinct Areas B to F inclusive) that support the provision of health services (within walking distance).

The building stock ranges in age, condition, and suitability for purpose.

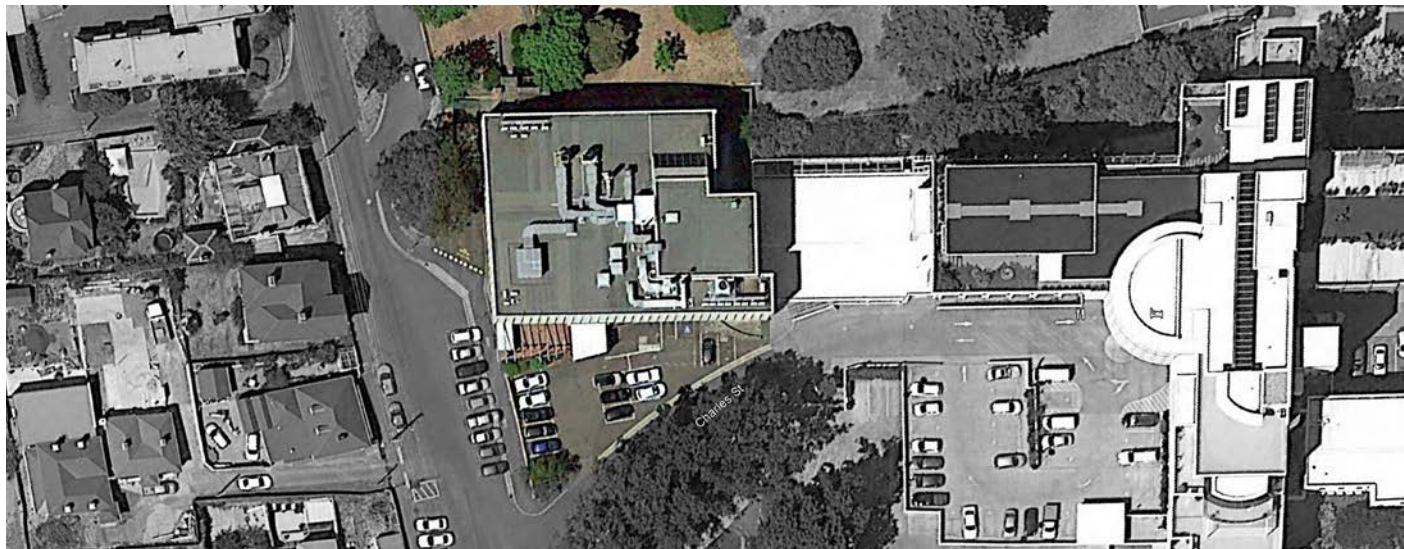
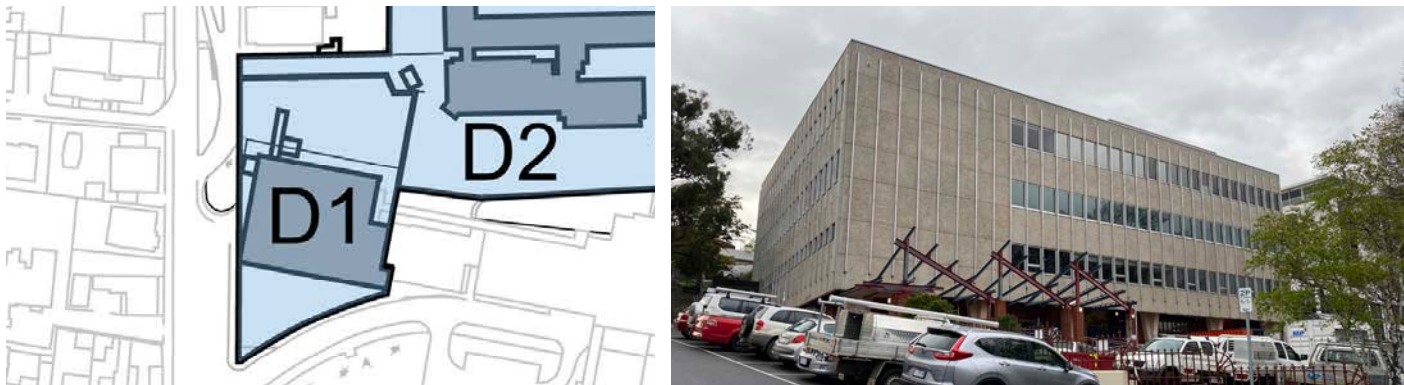




Function	Mental Health Outpatient Clinic & Car Park
Address	52 Frankland Street
Map Reference	B
Lot Size	6,150 m2 +/- (TBC) (+1000 m2 Birthing Centre)
Building Area (Approx)	1,250 m2
Dedicated Parking on Site	82 +/- (TBC) Adequate parking provision available on-site (non-compliant)
Suitability for current purpose	Architect / Clinicians comment Not suitable
Condition	Poor
Know Concerns / Operational & Maintenance	Building & infrastructure at end of life
Suitability for expansion	Not Suitable
Other Opportunities	Government's preferred private hospital site subject to unsolicited bid process
Recommendation	N/A
Comment on costs	N/A



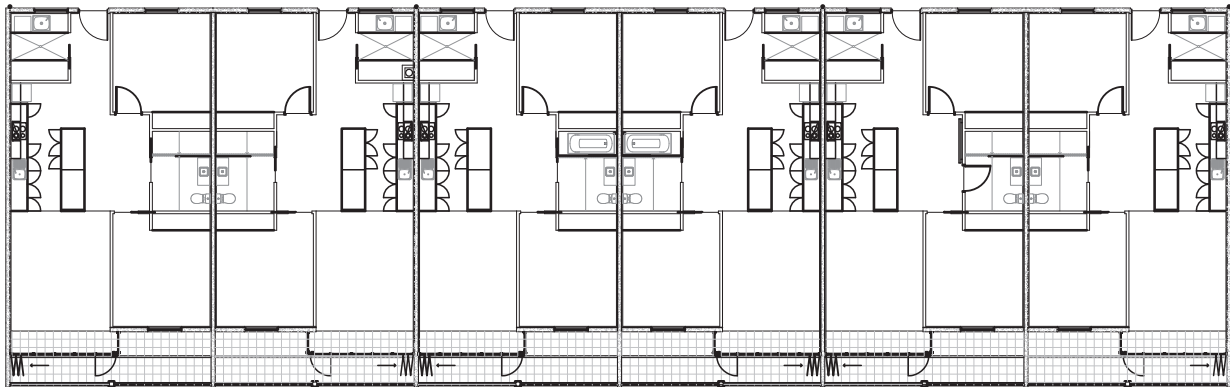
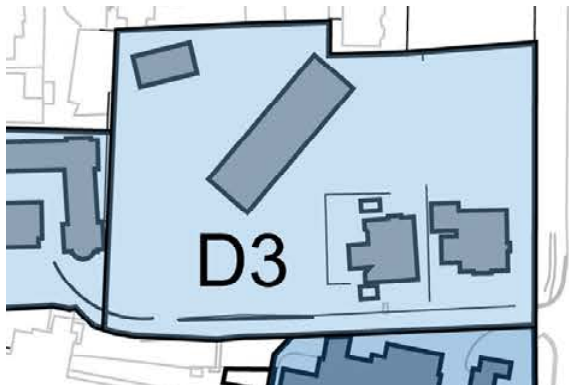
Function	Patient Accommodation
Address	268 & 270 Charles Street
Map Reference	C
Lot Size	1,030 m2
Building Area (Approx)	575 m2
Dedicated Parking on Site	Nil
Suitability for current purpose	Architect / Clinicians comment
Condition	Light refurbishment June 2013
Know Concerns / Operational & Maintenance	Unknown
Suitability for expansion	Currently 2no. Units & 6no. Single Rooms. Very Limited opportunity for expansion.
Recommendation	Retain & Maintain
Comment on costs	Minimal



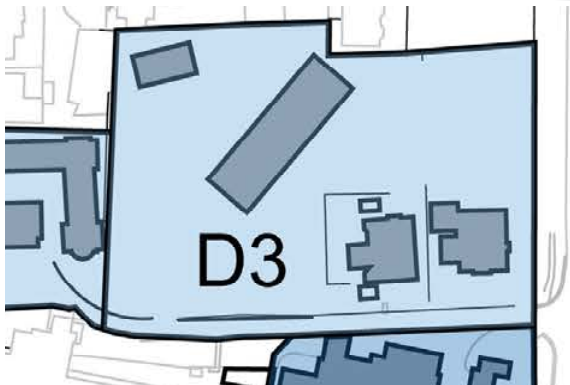
Function	Office Accommodation
Address	39 Frankland Street
Map Reference	D1
Lot Size	2,714m2
Building Area (Approx)	2,885m2 - 3 + 1 levels
Dedicated Parking on Site	17 Insufficient parking provision - significant
Suitability for current purpose	Suitable for office accommodation
Condition	Structurally sound, new roof membrane, existing floor plates floors currently undergoing refurbishment, new lift install
Know Concerns / Operational & Maintenance	TBA - Currently undergoing refurbishment
Suitability for expansion	Can expand to both the East & West to extend floor plates
Other Opportunities	Improve pedestrian access and building entry levels, install second lift, new Façade, increase floor plates. Considered suitable for Clifford Craig Foundation (subject to fit-out) Suitable for a range of tenants
Recommendation	Retain for office space, consider expanding subject to demand for office / administration type space close to main hospital campus.
Comment on costs	



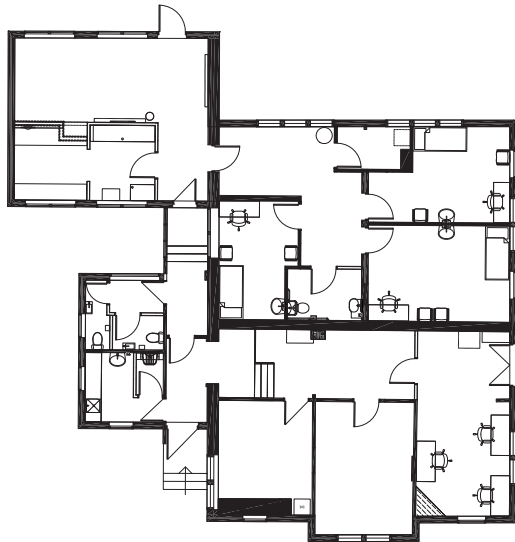
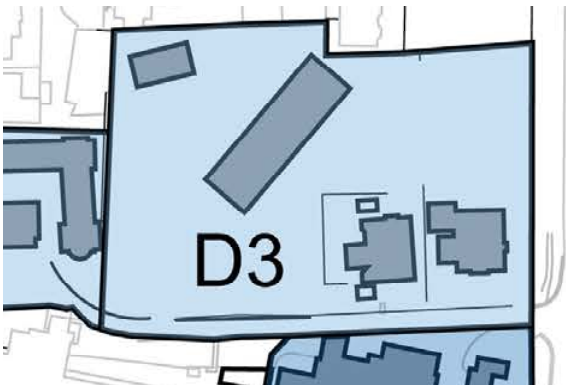
Function	Student & Nurse's Accommodation
Address	34 - 40 Howick Street
Map Reference	D2
Lot Size	22,984 m2
Building Area (Approx)	1,600 m2
Dedicated Parking on Site	10 (TBC)
Suitability for current purpose	Architect - Unsuitable to reuse or adapt
Condition	Abandoned / Vacant - Unsuitable
Know Concerns / Operational & Maintenance	End of Life, Partially heritage listed
Suitability for expansion	Nil
Other Opportunities	Partial demolition of poorest building stock. Boutique accommodation in the most historic portion, demolition of the long building at rear New development site most suitable for residential. Access off Frankland, Howick & French Streets
Recommendation	Develop site for sale for residential / accommodation.
Comment on costs	Subdivision of this site has the potential to realise a solid return , subject to correctly managing the sale process



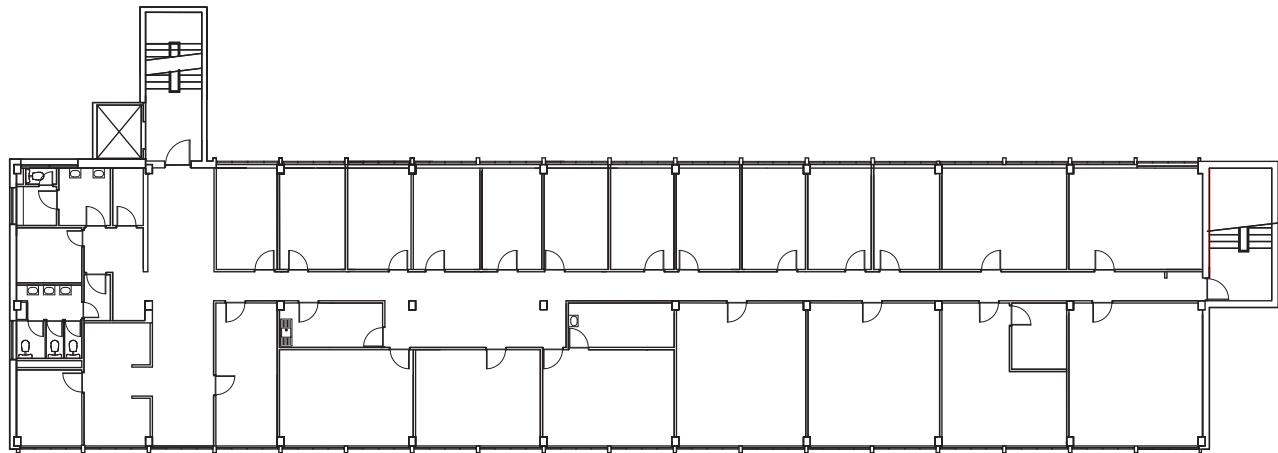
Function	Cancer patient & relative accommodation on upper ground floor, Medical Student short term accommodation lower ground floor
Address	34-40 Howick Street
Map Reference	D3
Lot Size	22,984 m2 (Part of lot)
Building Area (Approx)	865 m2
Dedicated Parking on Site	27 (TBC) Adequate parking provision available on-site
Suitability for current purpose	Architect - Well suited
Condition	Good - (Built 2010)
Know Concerns / Operational & Maintenance	Nil
Suitability for expansion	Limited - Steep south facing site with limited access
Other Opportunities	Demolish Gardeners cottage (possible heritage listing) & provide additional residential accommodation.
Recommendation	Hold, longer term work to have heritage listing removed
Comment on costs	



Function	Gardeners Crib Room
Address	34 - 40 Howick Street
Map Reference	D3
Lot Size	22,984 m2 (Part of Lot)
Building Area (Approx)	280 m2
Dedicated Parking on Site	Informal (Minimal)
Suitability for current purpose	Architect / Clinicians comment
Condition	Poor
Know Concerns / Operational & Maintenance	Old building stock in poor condition
Suitability for expansion	Nil
Other Opportunities	Demolish, return to public space, or convert to residential
Recommendation	Work to remove heritage listing to unlock site
Comment on costs	

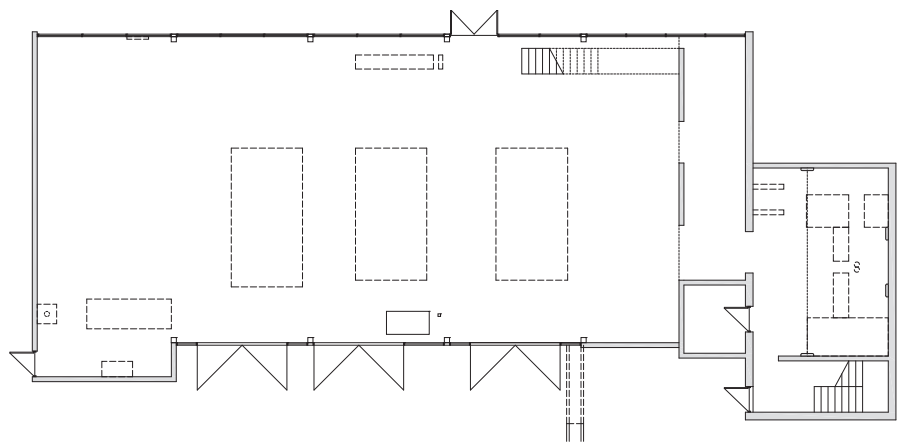


Function	Sexual Health Service
Address	34 - 40 Howick Street
Map Reference	D3
Lot Size	22,984 m2 (Part of Lot)
Building Area (Approx)	240 m2
Dedicated Parking on Site	3 Insufficient parking allocation
Suitability for current purpose	Not suitable for current purpose
Condition	Interior recently refurbished - good condition
Know Concerns / Operational & Maintenance	Old building stock Residential House adapted for office / consulting
Suitability for expansion	Nil
Other Opportunities	Demolish, return to public space or convert to residential
Recommendation	Work to remove heritage listing to unlock site
Comment on costs	



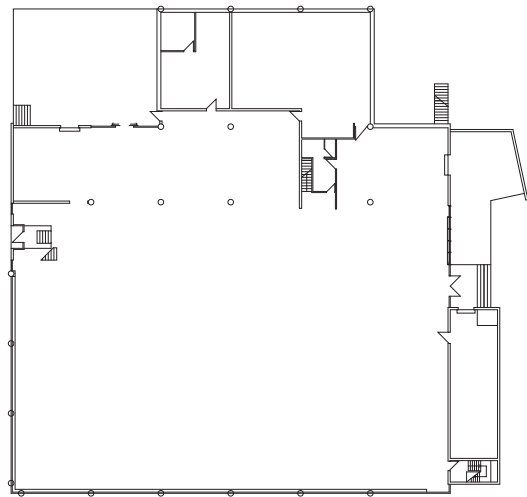
Function	Office Accommodation (University of Tasmania, Palliative Care Tas)
Address	34 - 40 Howick Street
Map Reference	D4
Lot Size	22,984 m2
Building Area (Approx)	2700 m2 on 4 Levels (670 m2 per level)
Dedicated Parking on Site	12 - Insufficient parking provision
Suitability for current purpose	Not particularly suitable, narrow floor plates, central long circulation corridor with generally small offices facing north & south. Currently second class office accommodation at best, not suitable for collaborative team work.
Condition	Fair - Roof replaced last ten years, asbestos cladding removed & replaced with metal cladding. Generally metal framed single glazed windows providing poor thermal performance
Know Concerns / Operational & Maintenance	Old plant, old power supply, expensive to run. Low floor to floor heights
Suitability for expansion	Nil
Other Opportunities	Consider demolition for new activity Consider demolition of Boiler House & combine into one larger site possibly suit Mental health both in & outpatients, both with separate entries, with private & secure grounds. Possible car parking site Possible bridge over Charles street to main hospital (noting one used to exist)
Recommendation	Consolidate staff in 39 Frankland or other locations & consider this a primary development site.
Comment on costs	

Old Boiler House

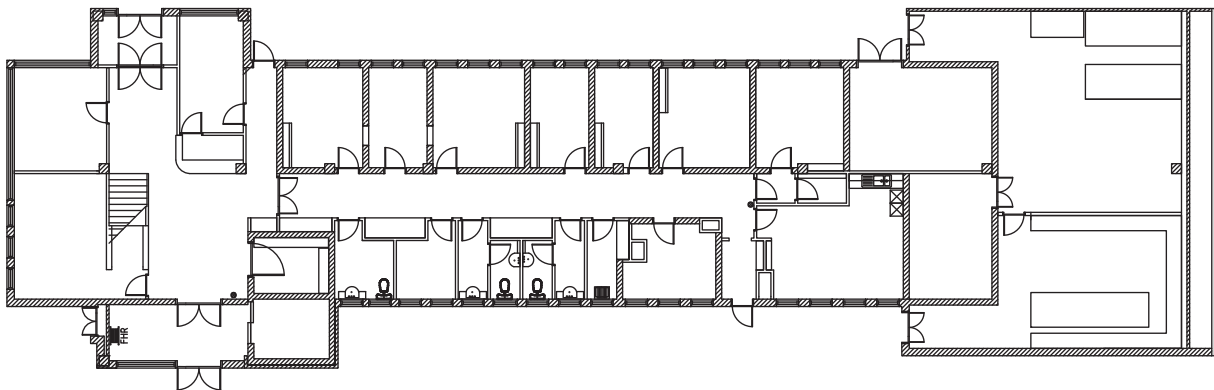
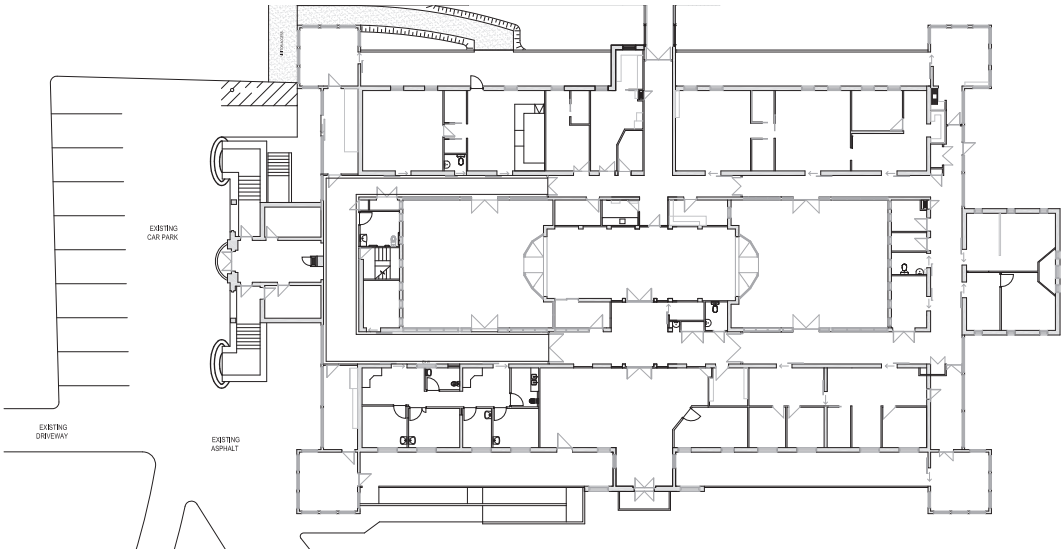
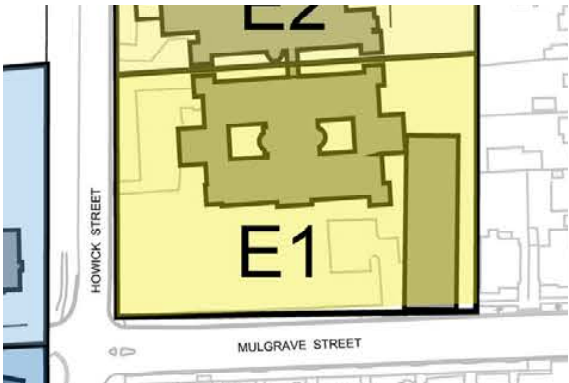


Function	Re-purposed to Stores / Goods receivable?
Address	34-40 Howick Street
Map Reference	D4
Lot Size	22,984 m2 (Part of lot)
Building Area (Approx)	380 m2
Dedicated Parking on Site	2
Suitability for current purpose	Suitable for low value storage not requiring conditioned space
Condition	Fair
Know Concerns / Operational & Maintenance	Nil
Suitability for expansion	Limited, minimal services on site single level industrial building
Other Opportunities	Land to the west of the boiler house could/ would be unlocked if building demolished Land could be added to Anne O'Byrne site
Recommendation	Demolish
Comment on costs	

Supply Building (Old Laundry)

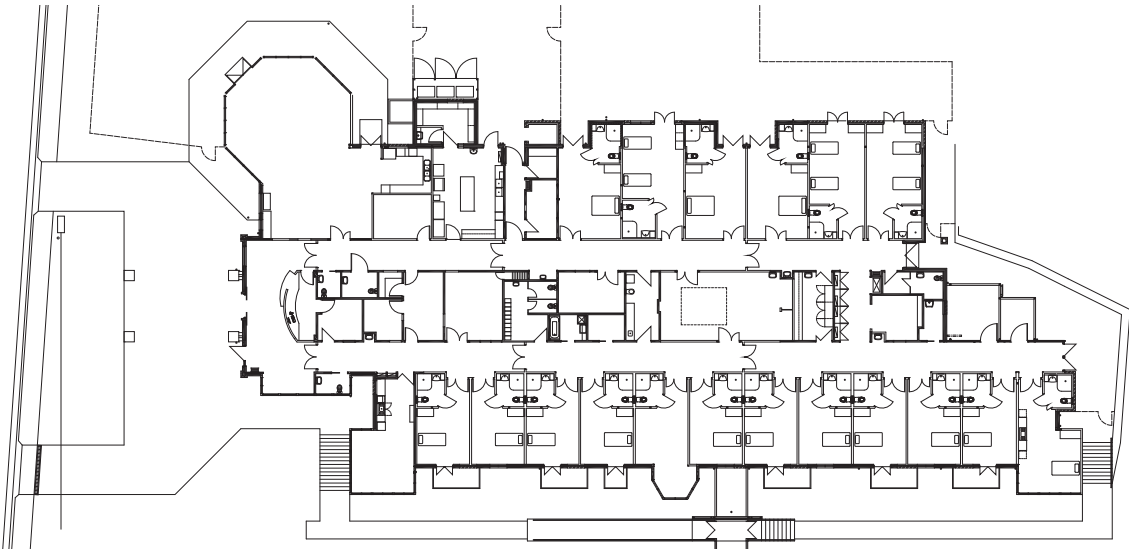


Function	Hospital Consumable Store
Address	34 - 40 Howick Street
Map Reference	D4
Lot Size	22,984 m2
Building Area (Approx)	1656 m2 with small basement & mezzanine
Dedicated Parking on Site	10 - Functional Loading bay
Suitability for current purpose	Appears suitable for storage
Condition	Fair / Good
Know Concerns / Operational & Maintenance	Unknown
Suitability for expansion	Nil (Land locked) by Ann Obyrne & Boiler House & access road
Other Opportunities	Expand toward Boiler House Demolish for bigger site possibly incorporating Ann O'byrne & Boiler House Site for significant Hospital development & possible site for Mental Health
Recommendation	Confirm if this current facility is meeting current/ future demand & is appropriately located. Test suitability for mental Health
Comment on costs	

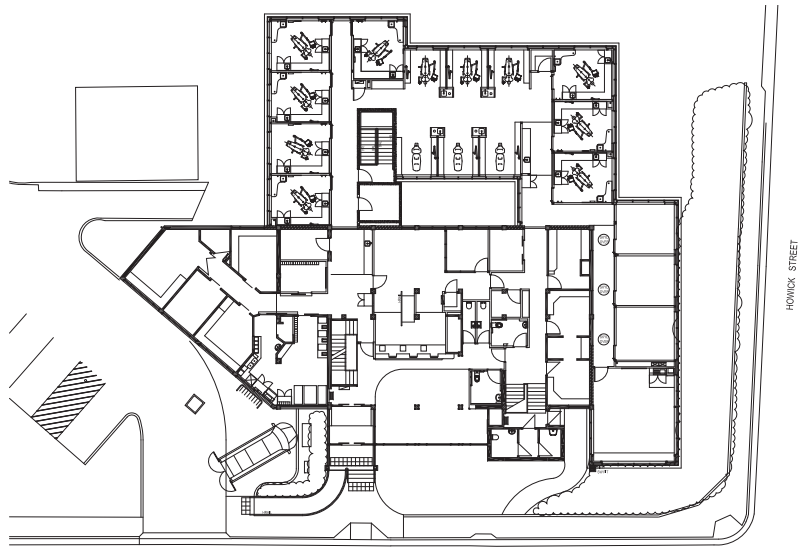
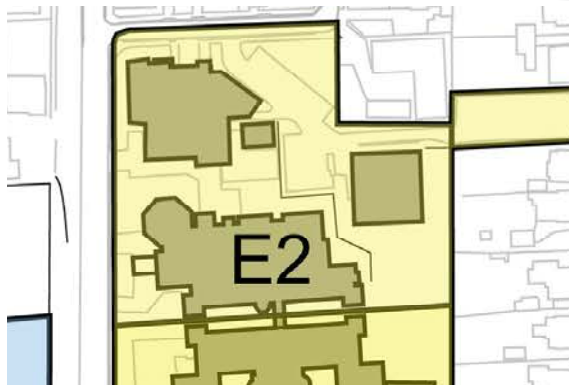


Function	Primary Health Office's including Wound Care Dementia, Continence Service. Youth Health Services, Palliative Care office, Home Care Service.
Address	33 - 39 Howick Street
Map Reference	E1
Lot Size	10,500 m2 (Part of lot)
Building Area (Approx)	1,325 m2
Dedicated Parking on Site	38 Shared with adjacent John L Grove & Lindsay Millar Insufficient Parking Allocation
Suitability for current purpose	
Condition	Fair / Poor
Know Concerns / Operational & Maintenance	Building access to Front Entry not DDA compliant (side entry only). Building services at end of life, Fabric requires significant maintenance, Poor ventilation. Whole of site has a heritage listing.
Suitability for expansion	Limited expansion possible to the south, construction access difficult, Expansion should only be considered if it is part of a whole of precinct opportunity. Old Infectious Diseases Hospital, well regarded by local community.
Other Opportunities	Could support low-acuity function with significant refurbishment Dispose of asset to community group or private enterprise. Consider Boutique Palliative Care facility run by community or service organization
Recommendation	Undertake a critical analysis of buildings suitability to provide low acuity services.
Comment on costs	Expensive to bring back to first quality administrative or clinical space.

Function	Drug & Alcohol Outpatient Services
Address	13 Mulgrave Street (33 to 39 Howick Street)
Map Reference	E1
Lot Size	10,500 m2
Building Area (Approx)	1,150 m2
Dedicated Parking on Site	12 of 38, shared with Allambi Insufficient Parking Provision
Suitability for current purpose	Unknown
Condition	Unknown
Know Concerns / Operational & Maintenance	Old building stock Long narrow floor plates
Suitability for expansion	Limited opportunity except to rear where an old building has recently been demolished. An opportunity exists to build a lift, stairs horizontal connections to Allambi, John L Grove & Lindsay Millar Long narrow floor plates with central circulation spine, difficult to adapt
Other Opportunities	Lindsay Millar was a purpose-built mental health facility that has been repurposed for office / clinic space It may be suitable to temporarily convert back to mental health inpatient unit to facilitate a temporary mental health facility Relocate occupants & dispose of asset
Recommendation	Investigate suitability for change of use Dispose of Asset
Comment on costs	Expensive to bring back to current standards



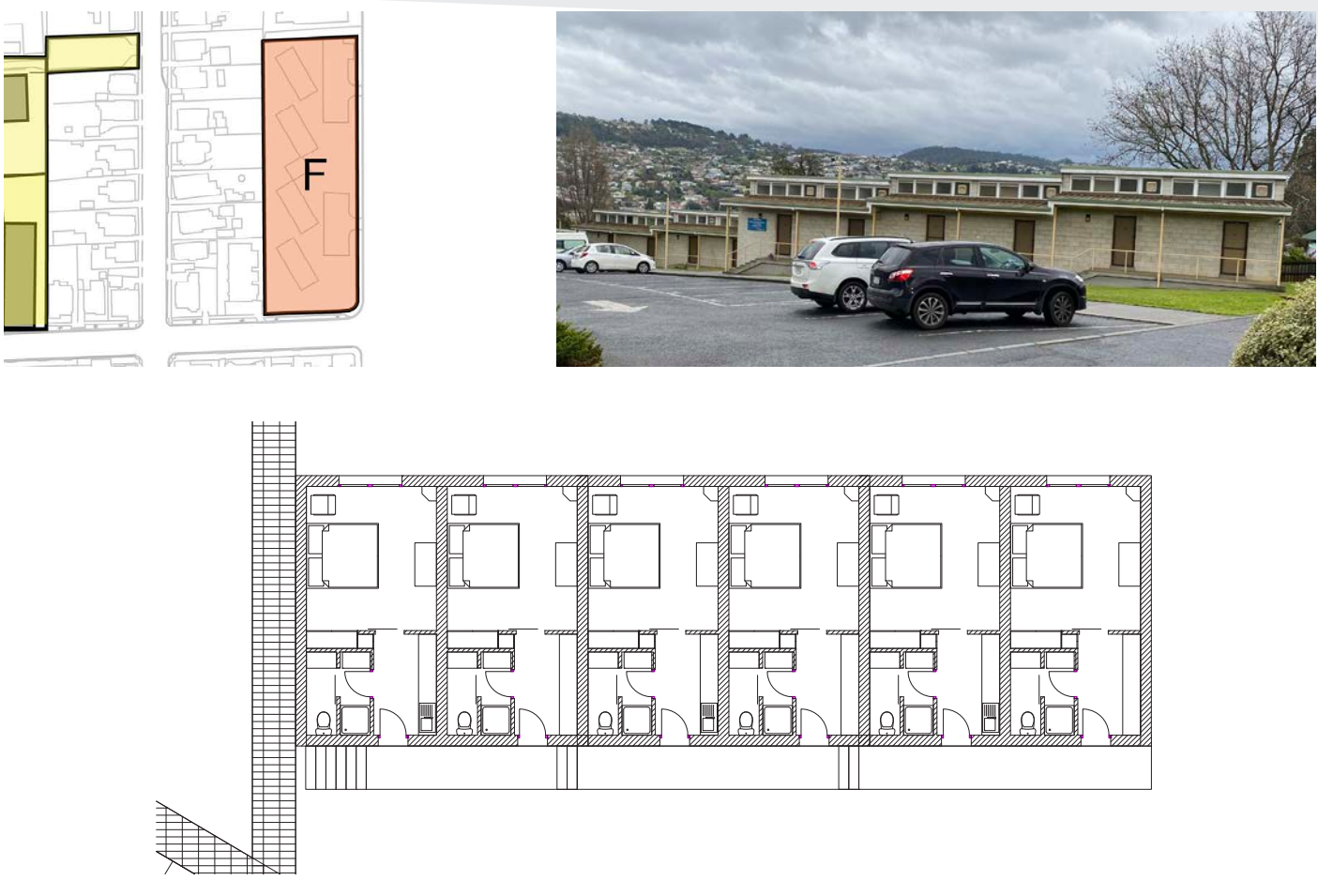
Function	Slow Stream Rehab
Address	33 - 39 Howick Street
Map Reference	E2
Lot Size	10,500 m2 (Part of lot)
Building Area (Approx)	1,325 m2
Dedicated Parking on Site	4 Insufficient Parking Allocation - Significant
Suitability for current purpose	Suitable, recently upgraded
Condition	Good
Know Concerns / Operational & Maintenance	New roof required in medium term. Update mechanical service in medium term Airlock desired at front entry / reception
Suitability for expansion	Expansion only possible towards the rear of the property in the current building configuration. Multi level development would require demolition and rebuild. Town planning limitations with limited car parking. Heritage implications with large scale development.
Other Opportunities	Potential 3 level development site with complete demolition of current facility
Recommendation	Retain
Comment on costs	



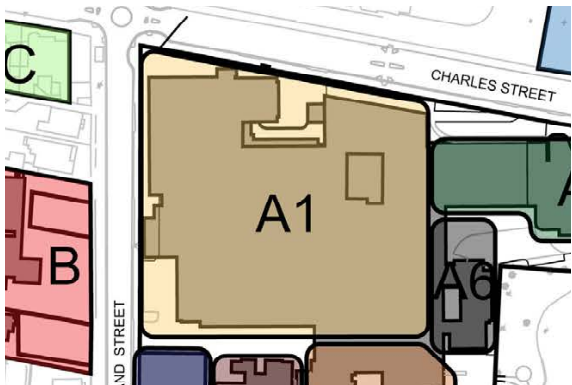
Function	Public Dental Clinic
Address	2 Kelham St (33 - 39 Howick Street)
Map Reference	E2
Lot Size	10,500 m2 (Part of lot)
Building Area (Approx)	
Dedicated Parking on Site	18 public+- Generates considerable parking pressure in vicinity of site with 15+ surgeries & short appointment duration. Insufficient Parking Provision
Suitability for current purpose	Architect - Suitable, recently upgraded
Condition	Good
Know Concerns / Operational & Maintenance	Recently Upgraded, Requires lift access
Suitability for expansion	Very Limited
Other Opportunities	Limited
Recommendation	Retain & Maintain
Comment on costs	



Function	Home base from where service delivery is organized & community cars are parked over-night
Address	33 - 39 Howick Street
Map Reference	E2
Lot Size	10,500 m2 (Part of lot)
Building Area (Approx)	400 m2
Dedicated Parking on Site	20 (government fleet) Requires additional 27 spaces for staff
Suitability for current purpose	Unknown
Condition	Unknown
Know Concerns / Operational & Maintenance	Unknown
Suitability for expansion	Expansion possible only with demolition
Other Opportunities	Demolish and increase precinct parking
Recommendation	Dispose of Galvin St car park and return to residential - long term
Comment on costs	



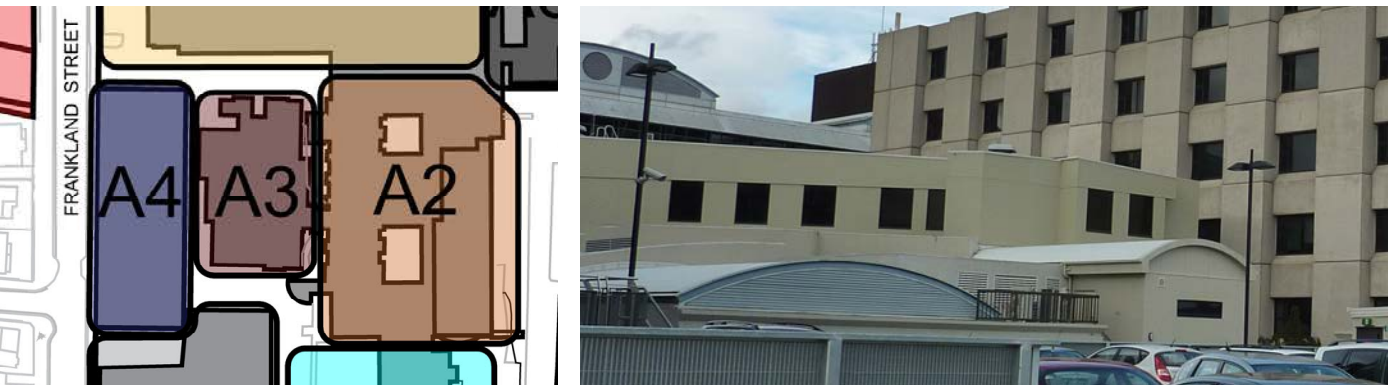
Function	Short term accommodation for hospital staff
Address	Pedder Street
Map Reference	F
Lot Size	5700 m2
Building Area (Approx)	4 Blocks @ 210m2
Dedicated Parking on Site	32 TBC
Suitability for current purpose	Architect - Suitable
Condition	Fair
Know Concerns / Operational & Maintenance	Unknown Rooms small by current standards
Suitability for expansion	Nil
Other Opportunities	Convert two adjacent units to one larger unit
Recommendation	Retain & Maintain
Comment on costs	



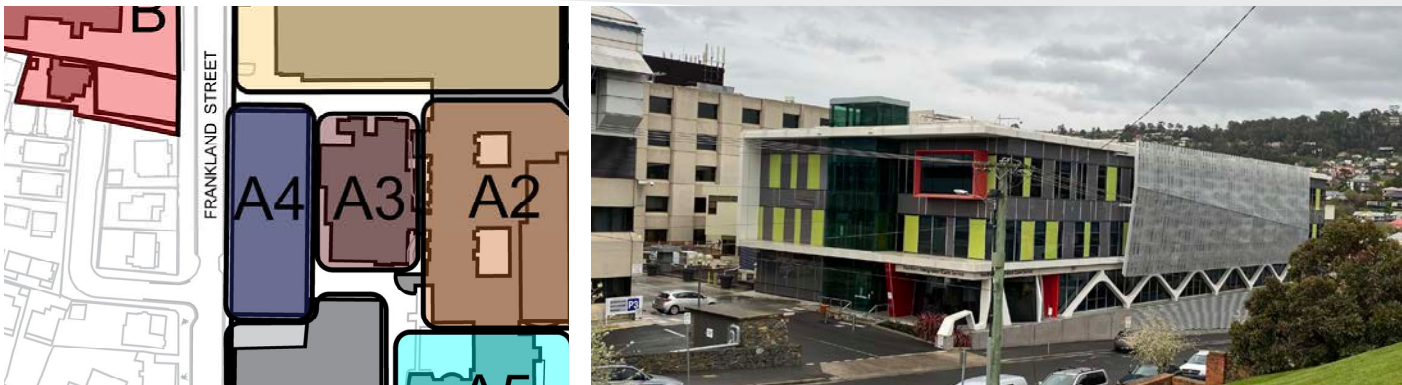
Function	Main Campus Block North East Corner
Address	Charles Street
Map Reference	A1
Number of Levels	Five
Principle Services	Level 1: - ½ Plant, Kitchen & Deliveries Level 2: - Pathology, Mortuary, Department of Medicine (DOM), Building & Engineering (B & E), Workshops, Medical Records, Integrated Operations Centre Level 3: - Public Entrance, Emergency Department (ED), Acute Medical Unit (AMU), Radiology, Nuclear Medicine, Cardio Level 4: - Main Plant Room, Intensive Care Unit (ICU) Department of Surgery Level 5: - Operating Theatres, CSSD, Surgical Wards 5A & 5B Short Stay Surgical (SSSU)
Suitability for current purpose	TBA
Condition	
Know Concerns / Operational & Maintenance	Updated standards, changes in service delivery, greater demand & the usual update of building fabric and services all contribute to a less than optimal facility. Re-planning Level 3 most specifically will greatly assist service delivery & patient flow. Changes will have a flow on effect throughout the hospital precinct & will require more space to be constructed.
Suitability for expansion	Existing building footprint is not suitable for expansion - land locked.
Other Opportunities	Opportunity exists to relocate selected services to other areas off the hospital allowing the remaining acute services to absorb vacant areas and expand. Support linkage to co-located hospital to share resources etc Relocate main entry to a level site & reduce congestion on Charles Street Relocate kitchen off site to reduce congestion. Consider sharing kitchen with co-location.
Recommendation	Confirm preferred acute services that require co-location & expand / recast plan layouts
Comment on costs	



Function	Main Campus D Block South West Corner
Address	Charles Street
Map Reference	A2
Number of Levels	Six
Principle Services	Level 1: - Holman Clinic Medical Oncology / Undercroft Level 2: - Allied Health Level 3: - Paediatric Outpatients & QV (Women's & Children's Outpatients, Renal & Ward 3R (Rehab) Level 4: - Ward Level 5: - Ward Level 6: - Ward- CCU? Plant
Suitability for current purpose	TBA
Condition	
Know Concerns / Operational & Maintenance	Structural grid makes alteration & meeting current AusHFG space recommendations more difficult. Known roof Leaks and building fabric requires upgrade generally. Services not replaced in recent upgrade projects are at end of life No HVAC leads to overheating in summer. Holman Clinic projections require additional consulting space.
Suitability for expansion	Existing building would support 1 more level to D block tower Partial demolition of Allied Health (south of main corridor) & 3R above to provide space for a 6-level expansion (possibly ward space) & potential expansion to maternity (A6)
Other Opportunities	
Recommendation	Longer term refurbishment of D Block following development of new ward space Detailed review of benefit of expanding over 3R & linking in with maternity
Comment on costs	

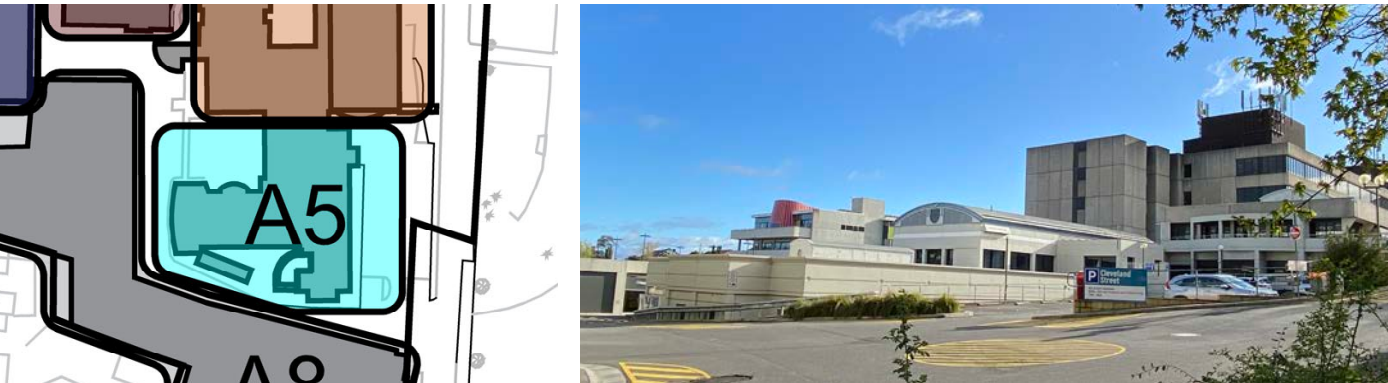


Function	Radiation Therapy - Centre of Main Campus Block
Address	Charles Street
Map Reference	A3
Number of Levels	Three
Principle Services	Level 1: - Radiation Therapy, 4 bunkers inc Brachey Therapy Level 2: - Planning Level 3: - Seminar / offices
Suitability for current purpose	TBA
Condition	
Know Concerns / Operational & Maintenance	Growing service Future desire for fourth linear accelerator bunker
Suitability for expansion	Limited expansion as generally land locked
Other Opportunities	Expand into kitchen space. Share service with Co-location to save requirement for current/ future expansion
Recommendation	Detailed Masterplaning
Comment on costs	



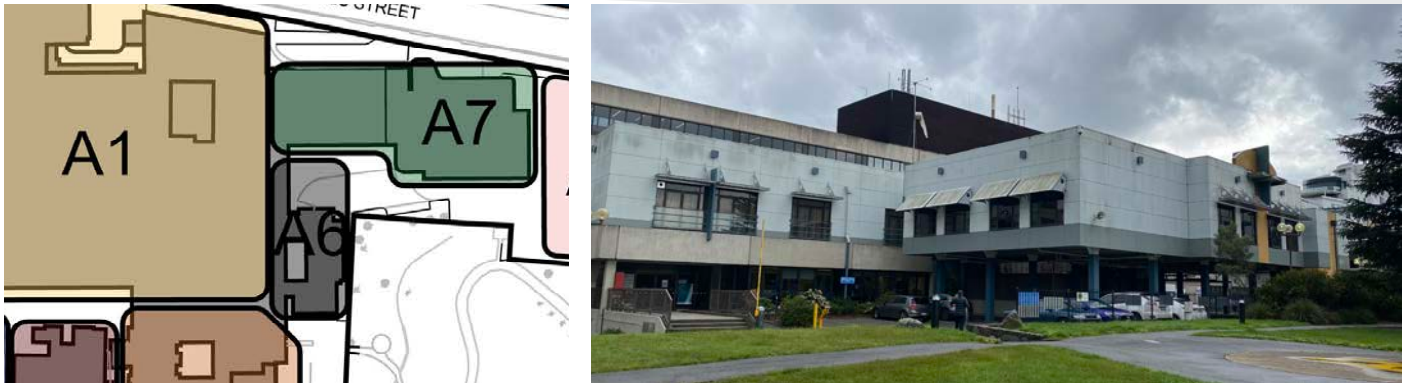
Function	Office Accommodation and Clinical Outpatient Space
Address	Frankland Street (Charles Street)
Map Reference	A4
Number of Levels	Three + Carpark under
Principle Services	Level 1: - Car park Level 2: - Clinics Level 3: - Hospital Offices Level 4: - UTAS Clinical School
Suitability for current purpose	TBA
Condition	Generally good, Lift service is under
Know Concerns / Operational & Maintenance	
Suitability for expansion	Limited expansion possible Possible over car park with car park strengthening There are town planning constraints with this option (Building height / overshadowing)
Other Opportunities	An informal street /pedestrian access exists between planning blocks A1, A2, A3 & A4. Level 2 of A4 was originally intended to be the main hospital entrance. With a co-location (& without) relocating the main entrance on grade, level access makes great sense. Close to main public lift bank and central to the Hospital campus. External deck could be infilled (assisting in solving known water problem) & a selection of support "public" services, auxiliary, florist, newsagent, coffee type concession spaces developed in this area supporting both LGH & co-located Hospital
Recommendation	
Comment on costs	

A5 - Northside



Function	Acute Mental Health Inpatient Unit
Address	Charles Street
Map Reference	A5
Number of Levels	Two
Principle Services	Level 1: - Secure Mental Health, Inpatient Mental Health Level 2: - Mental Health Offices
Suitability for current purpose	Not fit for purpose
Condition	Average, ready for redevelopment
Know Concerns / Operational & Maintenance	Too many shared patient rooms Tired Fit-out
Suitability for expansion	Great opportunity to develop a large footprint multi- level expansion space that links directly into hospital corridor network and adjacent carpark
Other Opportunities	Large scale development site. Link back into D Block. Possible location for Helipad on roof. Possible basement storage, service & car parking alternatives.
Recommendation	Detailed Masterplaning
Comment on costs	

A6 - Maternity



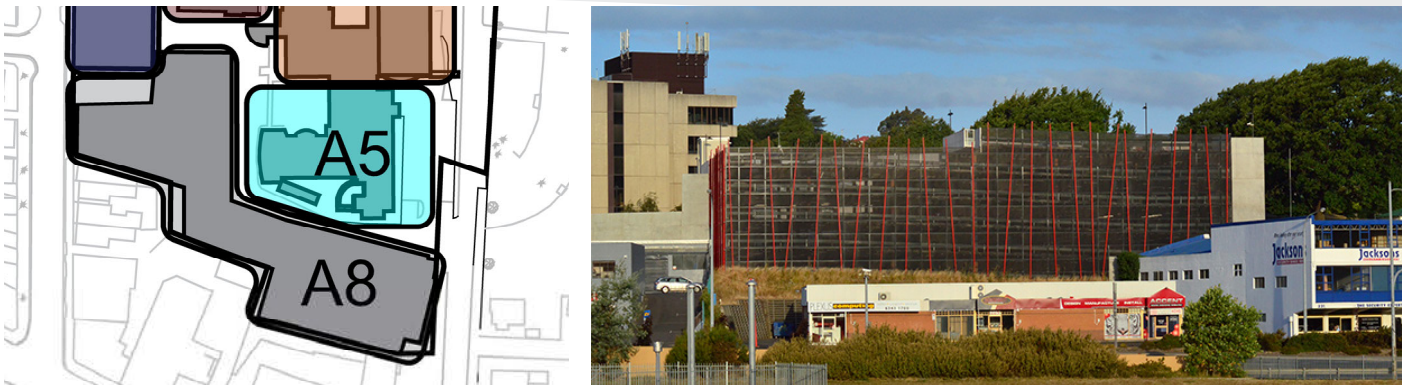
Function	Maternity - Birthing, Inpatient, NICU
Address	Charles Street - Southern Side of Main Campus Block - facing Okerby Gardens
Map Reference	A6
Number of Levels	Two
Principle Services	Level 3: - Entry Level 4: - Birthing Suites Ward areas
Suitability for current purpose	TBA
Condition	Average, ready for internal redevelopment, building fabric lacks insulation, no air conditioning Preference to locate birthing suite closer to theatres
Know Concerns / Operational & Maintenance	
Suitability for expansion	Suitable to expand to the west & link up above ward 3R Other Opportunities Link back into D block
Other Opportunities	Link back into D block
Recommendation	Detailed Masterplaning
Comment on costs	

A7 - 4K Children's Ward



Function	Paediatric & Outpatient Clinics
Address	Charles Street - Central side of Main Campus Block facing Charles Street
Map Reference	A7
Number of Levels	Two
Principle Services	Level 3: - Specialist Clinics Level 4: - Paediatric Inpatient Unit (Currently being redeveloped)
Suitability for current purpose	TBA
Condition	Good
Know Concerns / Operational & Maintenance	
Suitability for expansion	Building shell Not suitable for vertical expansion without significant structure strengthening that would be very disruptive
Other Opportunities	Alternative function in Specialist clinic area Recast Specialist clinics for more specific functions? Long term demolition & rebuild for 6or 7 level redevelopment
Recommendation	Detailed Masterplaning
Comment on costs	

A8 - Multi Level Car Park



Function	Multi Level Car Park
Address	Frankland / Cleveland Streets
Map Reference	A8
Number of Levels	
Principle Services	Multi Level Car parking
Suitability for current purpose	Suitable
Condition	Good
Know Concerns / Operational & Maintenance	
Suitability for expansion	
Other Opportunities	
Recommendation	
Comment on costs	



Function	On Grade Car Park
Address	Charles Street - South Eastern corner of Charles & Howick Streets
Map Reference	A9
Number of Levels	One
Principle Services	On grade Car parking
Suitability for current purpose	Suitable
Condition	Good
Know Concerns / Operational & Maintenance	
Suitability for expansion	4 levels + Carpark or service area - TBC (Planning Dependent)
Other Opportunities	Link to 4k PIU Mental Health Tower ? Administration Clinical Services Slow stream Rehab
Recommendation	Detailed Masterplaning
Comment on costs	

5. LGH Main Campus Observations

Architectural

The Launceston General Hospital is one of the oldest hospitals in Australia commencing in a tent for convicts back in 1806.

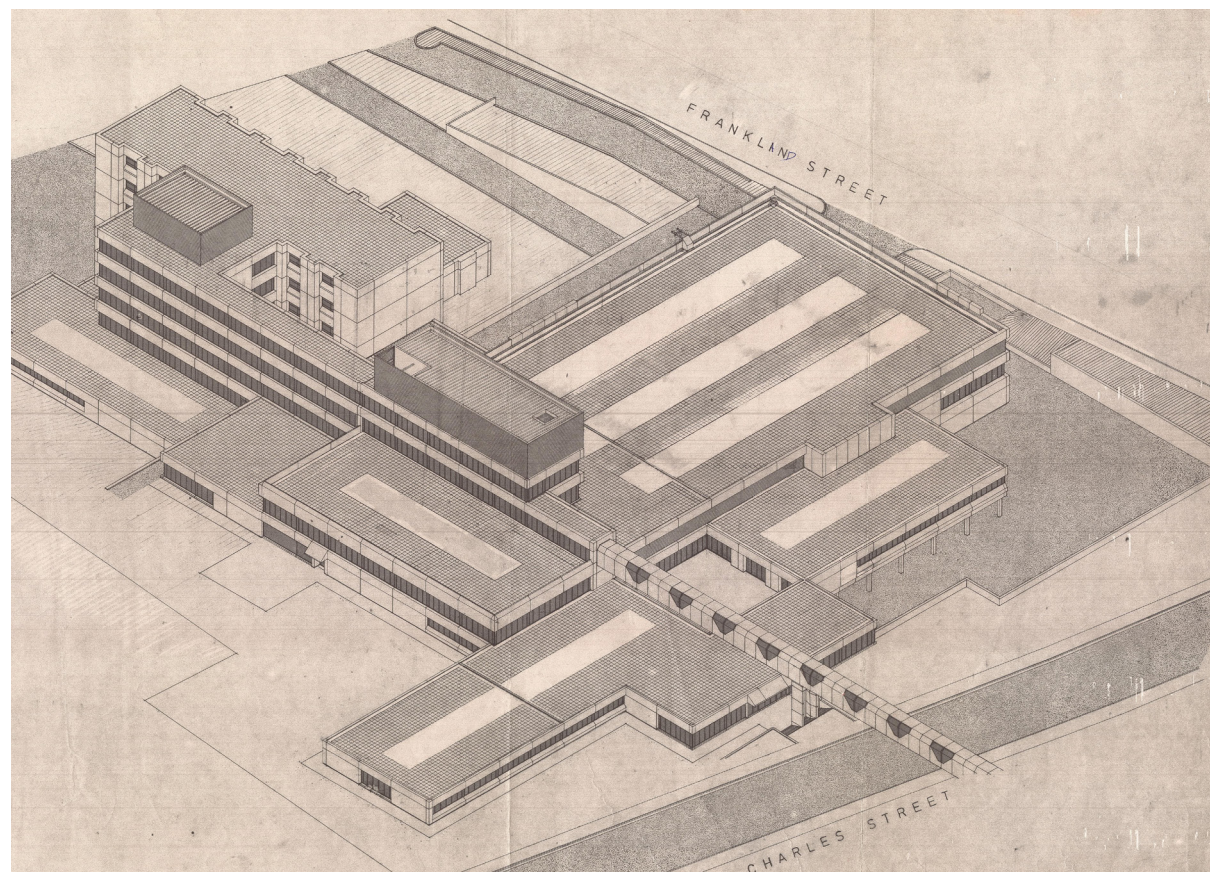
In 1863 a 102-bed hospital, known as the Launceston General Hospital, was constructed with access off Frankland Street, up the hill to the east of the current Charles Hotel.

This facility was in turn replaced with a New Launceston General Hospital (LGH), in the Art New Vaux style, that has more recently been refurbished as the Charles Hotel.

The LGH moved from the Eastern side of Charles street to its current location from around 1981.

The attached images show the construction sequence for the first blocks & an isometric view of the main corridor linking the D block wards to the acute area of the hospital bounded by Charles and Frankland Streets. The original entry off Frankland Street and the entry off Cleveland Street and the bridge linking both the new and old hospital sites.

The building style of these buildings is described as “Brutalist”



In the 1990's Lawrence Nield and Woods Baggot Architects oversaw further expansion of the site adopting a softer Post- Modernist style typified by the barrel- vaulted roof forms a with the assistance of Philp Lighton Architects (PLA)

More recently the maternity hospital the Queen Victoria (QV) relocated to the LGH site fronting onto Ockerby Gardens.



Between 2008 and 2012 Health Planners, Health Science Planning, PLA and Architects Design House oversaw further expansion of the site with the expansion of Theatres, DEM, Nuclear Medicine and Carparking structure adopting an International Architectural style.

Since then there have been a number smaller developments on site to meet changing demand around Allied Health, Pathology, Pharmacy and Specialist Clinics, prior to the current Paediatric Inpatient Unit (PIU) development currently underway.



Campus Buildings

Site A 1. Charles Street/ Howick Street Car Park

Potential to provide quality accommodation at hospital levels 3,4, and 5 with gross individual floor areas of 1500m2+- providing gross floor areas up to 6/7000 m² max with potential for three level car park under.

Suitable for Outpatients, Ambulatory Care Diagnostics? Mental Health

PLA Note Adolescent Mental Health is located at level 4 in new 4 k extension, consider if this location is suitable for relocating Mental Health inpatient (Northside) & potentially Mental Health Outpatients (Viewpoint)

Carpark could be configured to provide secure sally -port Entry & Separate public access from other carpark levels and street access.

Level 5 could be configured for secure roof garden with barriers set back from building edge
Current Mental Health Inpatients 1268 m² and Mental Health Outpatients 1250 m² independent car park access secure roof garden over new

Building scale drops towards residential areas

Linkage to hospital via new bridge link

Discretionary DA



Site A.2 D Block

Potential to upgrade wards on levels 3,4,5 & 6 & possibly (unlikely)7 to AHFG guidelines for 32 bed wards (See SIIRP Bid 2014)

Suitable to expand horizontally- either easterly (more difficult) or westerly direction increasing capacity to a AHFG compliant 32 bed ward

Builds on a small portion of existing Northside, preferable for northside to decanted prior

New build element can be constructed first followed by 2 stage refurbishment,

A favoured development as it is close to hospital core & has direct access off hospital main street

Potential additional level 7 over.

Extension extends into west tower site.

Level 3 tenants QV Outpatients & Paediatric Outpatients are relocating to PIU Level 3 freeing this area up - See R Block Commentary

Level 2 Allied Health- assumed to remain

Level 1 Holman Clinic- assumed to remain

Site A.2 R Block

Potential to expand this block (existing 970m2) to the south ½ a grid, refurbish & expanded ward 3R.(1,100m2)

Potential new ward 4R, (1,100m2+) linking with existing L4 Maternity ward and hospital East West pedestrian street to car park & existing reception.

Possible new Wards 5R (1500m2 +-)& 6R over with dedicated plant rooms to supplement existing level 4 hospital plant.

Note: possible further expansion toward Ockerby garden (south) above access road to intensify maternity or other ward requirements.

Additional expansion potential 2000m2 +-

Potential structure upgrade

Block R Level 2 Allied Health Potential Expansion ½ grid South

Site A.4 NICS

Purpose built Allied Health Facility

Consider changing tenant mix to reduce % of administration accommodation

What are allied health service delivery requirements

Site A.5 West Tower (Northside Site)

A major development site with potential for up to 12,000 m over 6 or 7 levels plus potential for Car Park & vehicle link to existing car park

Pedestrian link from new block direct to existing hospital main east west street and to multi storey car park

Potential to link to D block

Excellent development site with big floor plates and good perimeter suitable for ward space

Requires decanting & demolition of 1262m2 Northside.

Deemed to be the key to unlocking Site A

Development can potentially be staged vertically & possibly horizontally subject to futureproofing & tenant mix

Discretionary DA

Site A.8 Northside- Above Frankland Street 3 Level Carpark

Potential site relocation of mental health inpatient above car park

New build 1260m2 +-

PLA note Option will require structure strengthening & will potentially trigger neighbourhood height concerns from adjacent row houses.

Row houses are heritage listed.

Considered an expensive & potentially contentious development.

Site A. 6 Clifford Craig

Consider possible relocation off site A to possibly Drysdale for potential expansion of sterilization unit.

Chiller units above require maintenance/ replacement /switchboard upgrade

Site A. 7 PIU Level 5

Nominally 830 +- m2 Shell space for new function

Access and Egress

Public transport is available through the MTT, (8 Routes), Tiger Bus (Free, 1 return route) Taxi and Uber services. The LGH provides both dedicated staff and public car parking on site. Kerb side parking is heavily utilised by both hospital staff and public and other businesses in the general vicinity

Based on the 2020 Existing Conditions Car Parking Assessment commissioned for this report the existing car parking provision is assessed as not adequate.

Refer 10. Appendix - Existing Conditions Car Parking Report

Ambulance

The emergency department is served with a 7 Bay ambulance plus 2 vehicle parking area 3 Bays allow direct unloading from the rear of the vehicle, the remaining 4 spaces are used for short term parking. There are a further 2 dedicated 90-degree parks beyond the ambulance parking area for ambulance support vehicles.

There have been concerns raised in regards to the ambulance vehicle manouvers required into the bay to unload patients.

A single driveway access serves both access and egress of ambulances from the area, compounding circulation issues.

There are concerns that the 3 spaces provided to unload patients is insufficient.

The original design plans show 4 spaces. Traffic engineering advice predicts 4 spaces is a more usual allowance for this size hospital.

Patient are transferred from the ambulance to emergency through an airlock to the single triage holding bay, where the transfer of care from the ambulance service to the hospital is effected. Ambulance staff stay with the patient until this process is completed.

There is one triage bay, we understand that additional triage bays would assist in decongesting the ambulance bay.

Additional space may, with some relatively minor alteration be possible.



Helipad

The Helipad is currently located in Ockerby Gardens (Level 03) to the south of the main hospital. It is not well located as it presents public safety and patient access issues and is a considerable distance from the operating theatres (Level 05) and intensive care (Level 04) and department of emergency (Level 03).

A helicopter transfer from the LGH is a significant logistical undertaking with the current arrangement.

The Department of Health & Human Services Victoria has produced guidelines that detail requirements for helipads for medical evacuation, (Heliport Guidelines 2015.) including the FATO (Final Approach and Take Off area) of the aircraft in use.

The relocation of the helipad to an existing roof is problematic with consideration of required airspace, FATO, buildings structural capacity & linkage into the hospital street network.

Development of a heliport on new construction is likely to be less expensive and have a lower risk profile.



Wayfinding

Wayfinding is about guiding visitors by providing information and increase their understanding of the space. Generally the most desirable wayfinding strategy is to design spaces that are readable and would enhance their understanding in a subtle manner through the usage of:

- Space
- Colour and materials
- Light

Wayfinding also depends on good design of the visitor's circulation with hubs or orientation points interconnected by straight and unconfusing corridors. Signage should be concise and should work together with the physical fabric of the facility.

The current hospital has the following wayfinding issues:

- The location to certain departments is not along major hospital streets and is confusing
 - In the case of pathology the pathway requires visitors to go to another floor and traverse through corridors that communicates back of house areas and involves multiple turning.
 - In the case of the ED it does not have sufficient signage at the intersections around the hospital, the ED entry and building itself also does not have a highly visible profile. As reported by community and consumer group visitors and patients that are not familiar with the hospital would arrive into the hospital and be confused on where the ED is located.

Signage is too small and too low for vehicular traffic.

- Lack of distinct visual cues
 - The hospital does not employ different colour or material scheme for different zoning. A visitor can traverse through a podium floor without knowing whether they are in D block or the main clinical block
- Physical disconnection
 - The multistorey carpark is physically disconnected from the main hospital with no indication on how one should proceed to their destination
- Fragmented zoning
 - Outpatient services are fragmented without a single clear zone some of the outpatient components are hard to navigate to, such as the orthopedic clinic and special care dental.
 - There should be consideration for the patient and visitor journey with the aim to minimise the number of spaces that patient would need to travel for example the Pre-Operative Assessment Unit (POAU) should also be collocated with Day Surgery.
 - Car parking is also fragmented and confusing to visitors. This also resulted in a lot more vehicles in the state of travelling from one part of the carpark to another which decreases the efficiency of the car parks.
- Confusing signages
 - Where signages were installed they were loaded with information adding to the confusion of the visitors.
- Lack of a main orientation point
 - Noting that although Charles Street entry on level 3 is the main entry of the hospital. Visitors can still access into the hospital via a multitude of entries. None of these entries guides visitors to a hub where they can be provided with facility information and orientate themselves. Preferably the circulation system should link up multiple entrances to a single hub. The hub should be spacious to allow for a large number of people and reinforces readability of space.



Poor wayfinding creates confusion and confused visitors have a tendency to stop a member of staff to seek direction, which takes up hospital staff members time and creates inefficiency.



Bed room types

Below is a table showing the current number of physical beds in the hospital. Noting the summary also includes the beds that are in the K-block extension currently under construction.

Level	Department	Name	Number of Beds
Level 01	Northside Mental Health Services	1-Bed Room	8
Level 01	Northside Mental Health Services	2-Bed Room	12
Level 03	Acute Medical Unit	1-Bed Room	5
Level 03	Acute Medical Unit	1-Bed Room Isolation	1
Level 03	Acute Medical Unit	4-Bed Room	16
Level 03	CCU	2-Bed Room	2
Level 03	CCU	4-Bed Room	4
Level 03	Ward 3R	1-Bed Room	6
Level 03	Ward 3R	2-Bed Room	4
Level 03	Ward 3R	4-Bed Room	16
Level 04	Intensive Care Unit	Bed Bay	16
Level 04	Intensive Care Unit	Bed Bay Isolation	2
Level 04	Ward 4B-Maternity	1-Bed Room	10
Level 04	Ward 4B-Maternity	2-Bed Room	20
Level 04	NICU	Bed Bay Isolation	1
Level 04	NICU	NICU Bay	3
Level 04	NICU	SCN Bay	6
Level 04	Ward 4D	1-Bed Room	6
Level 04	Ward 4D	1-Bed Room Isolation	2
Level 04	Ward 4D	4-Bed Room	24
Level 04	Ward 4K	1-Bed Room	13
Level 04	Ward 4K	1-Bed Room Isolation	2
Level 04	Ward 4K	2-Bed Room	8
Level 04	Ward 4K	4-Bed Room	4
Level 04	Ward 4K - Paeds MH	1-Bed Room	6
Level 05	SSSU	Bed Bay	22
Level 05	SSSU	Bed Bay Isolation	1
Level 05	Ward 5A	1-Bed Room	4
Level 05	Ward 5A	1-Bed Room Isolation	2
Level 05	Ward 5A	2-Bed Room	2
Level 05	Ward 5A	4-Bed Room	24
Level 05	Ward 5B	1-Bed Room	8
Level 05	Ward 5B	4-Bed Room	24
Level 05	Ward 5D	1-Bed Room	6
Level 05	Ward 5D	1-Bed Room Isolation	2
Level 05	Ward 5D	4-Bed Room	24
Level 06	Ward 6D	1-Bed Room	6
Level 06	Ward 6D	1-Bed Room Isolation	2
Level 06	Ward 6D	4-Bed Room	24
Grand Total			348

Inpatient Unit Bed Ratio

With regards to only the inpatient units as listed below:

- Ward 3R - Rehab
- Ward 4B – Maternity
- Ward 4K – Paediatric
- Ward 5A – Surgical Ward
- Ward 5B – Surgical Ward
- Ward 4D
- Ward 5D
- Ward 6D

The breakdown to the type of beds are as follows:

Room Types	Sum of Number of Beds	Bed Ratio as %
1-Bed Room	65	26.10%
1-Bed Room Isolation	10	4.02%
2-Bed Room	34	13.66%
4-Bed Room	140	56.22%
Grand Total	249	100%

This means the average bed ratio of the hospital is as follows:

Room Types	Sum of Number of Beds	Bed Ratio as %
Single Bed Room	75	30%
Shared Room	174	70%
Grand Total	249	100%

Contemporary hospitals generally have a higher percentages of single bed rooms of around 70% to 80% vs shared beds with some facilities achieving a universal single bed ratio. Increasing the bed ratio for single bed will require significant floor spaces however single bed rooms has the following advantages:

- Provides privacy for patients
- Provides physical barrier and separate for infection control
- Allows a better and more peaceful environment for patients to rest thus improving recovery
- Allows flexibility in bed management with no need to restrict certain beds to certain type of patients based on the other patient that would be sharing the room

There are however also advantages for shared rooms such as:

- More efficiency in staffing and better patient observation
- Providing company to patients that would otherwise experience loneliness. Older patients are particularly vulnerable to this.

In discussion with stakeholders it was understood that certain wards would desire a higher number of single bed ratio such as the maternity ward with other wards satisfied on their current bed ratio.

The clinical service plan should provide guidance on the desirable bed ratio based on the model of care.

It is recommended that the single bed ratio be increased and that all shared beds would be limited to a maximum of 2 beds in a shared room in all standard inpatient units.

Bedroom sizes

Noting that the majority of the hospital was constructed at least 10 years ago the standard by which a health facility is designed and constructed in Australia has also gradually changed.

Required minimum room areas has been the biggest area of change in the Australasian Health Facility Guideline (AusHFG)

Below is a table showing the number of patient rooms and patient beds that would meet the AusHFG.

Room Labels	Sum of Number of Rooms	% of Rooms	Sum of Number of Beds	% of Beds
Meets area requirement of AusHFG only	38	15.90%	37	10.63%
Area below AusHFG	119	49.79%	246	70.69%
Area meets AusHFG	82	34.31%	65	18.68%
Grand Total	239	100%	348	100.00%

Some of the patient rooms or beds may meet or exceed the requirements of AusHFG but might be below in other criteria such as dimensions of spaces.

Note the AusHFG is not a key indicator on functionality of spaces it is simply a guideline that all new health facilities would need to meet.

Any new redevelopment on the hospital would need to adhere to the current AusHFG.

Hospital circulation

The hospital does not have a dedicated service circulation system. Visitors traffic and hospital services traffic are sharing the same corridors and lift banks. Not only is this a health and safety issue with a distinct risk of contamination and cross infection it also reduces the efficiency of the hospital as it slows down beds and services transportation.

Main Entry

The main entry to the hospital is at a level difference to the street level and lacks an effective vehicular dropoff space.

Radiology

The radiology has a fragmented layout with a lack of patient holding bays. Patient on beds were either held along the corridor or in the adjacent Day Procedure unit. Patient access into the CT room is via a corridor outside the department.

The unit also requires expansion with new machines. Precise number and the type of new machines required to be based on the clinical service plan.

The department will need to be expanded and will require a new layout to ensure sufficient holding bays are provided in the department that are separated from the general public area.

The Cath lab is currently located in the Radiology department. It is insufficient in size without adequate support and recovery area. The CCU is separate from the cath lab, located inside the AMU connected to the Cath lab via a public corridor. It is recommended that the cath lab and the CCU be relocated to a collocated space allowing space for the replanning of radiology.

Emergency Department

The current emergency department lacks sufficient ambulance triage bays this has caused an ambulance queue. The existing ambulance triage bay is also directly in front of the doors to the ambulance bays which allows public view of the area when the door is opened which happens frequently due to the length of the queue.

Furthermore, the ambulance and the general public are sharing the same triage counter which exacerbate the ambulance queue issue.

Hearse are also utilising the ambulance bays for pickup which is not ideal due to its widely visible location and it is in competition with the ambulances.

The department is also lacking a mental health assessment area with potential mental health patients being left in the general waiting area instead further agitating the patient.

The general waiting area was reportedly too small, with observation issue due to the presence of the central column and has a sterile ambience which could be stressful to visitors and patients.

A separate area for paediatric patients is also recommended.

There is also only one assessment room that is shared between sexual assault assessment and bad news delivery.

The general treatment halls were reportedly sufficient however there were no dedicated paediatric bays which should be considered by the hospital.

Women and Children Services

The pregnancy assessment clinic (PAC) is currently on level 3 in D block and is separated from the birthing suite on level 4 which is not efficient for the staffing workflow. There are also a number of shared bed rooms in the maternity ward which is not ideal.

NICU and SCN also appears to be cramped and lacks a direct connection into the adjacent paediatric ward. Such connection would be ideal allowing staffs to travel between the two departments directly and to function as a single Women and Children Services (WACS) precinct. Paediatric allied health located adjacent to the paediatric ward on level 4 lacks space to function and will require a bigger space. Its current location is landlocked and will need to be relocated for the expansion.

Mental Health

Mental health services is fragmented and is located in the following areas:

- The acute mental health unit in Northside site adjacent to Block D
- Outpatient services in Viewpoint
- Drug and Alcohol services in the Mulgrave building on the Allambi site.
- Outreach services in the city

The existing acute mental health unit is insufficient and would need to be relocated to a purpose built site. Ideally the other services would also be relocated to the same building to form an Integrated Mental Health Services Hub.

The central hub could also be an ambulance dropoff point for mental health patients to help reduce traffic to the ED.

Cancer Services

The Northern Cancer Service is provided from the Holman Clinic and the facility is made up of two parts:

- The standalone three storey clinic building which houses the existing LINAC bunkers and offices
- The patient hall, consult area and support area in Block D on level 1.

The department is generally sufficient with the exception of the embedded pharmacy which is cramped and is in need of expansion.

The department has reported that it is in need for expansion of its services on site requiring an additional LINAC bunker, consult rooms and treatment spaces. This will need to be confirmed by the clinical service plan.

Rehabilitation and Allied Health Services

The allied health services is located on level 2 and is consisted of three parts:

- Allied health patient treatment spaces including group rooms and gym
- Offices area
- Orthotics

The allied health patient treatment area is relatively new due to recent refurbishment however has requested for more consult rooms and group rooms. This will need to be confirmed by the clinical service plan.

The offices area and orthotics both lacks mechanical ventilation and would need refurbishment.

The rehabilitation ward located on level 3 is dated and is insufficient as it lacks a gym on the floor. It also lacks an accessible outdoor area.

The John L Grove site houses a 20 bed Slow Stream Rehabilitation unit. The unit is in acceptable condition and is functional.

Back of House

Hospital back of house generally consists of the following:

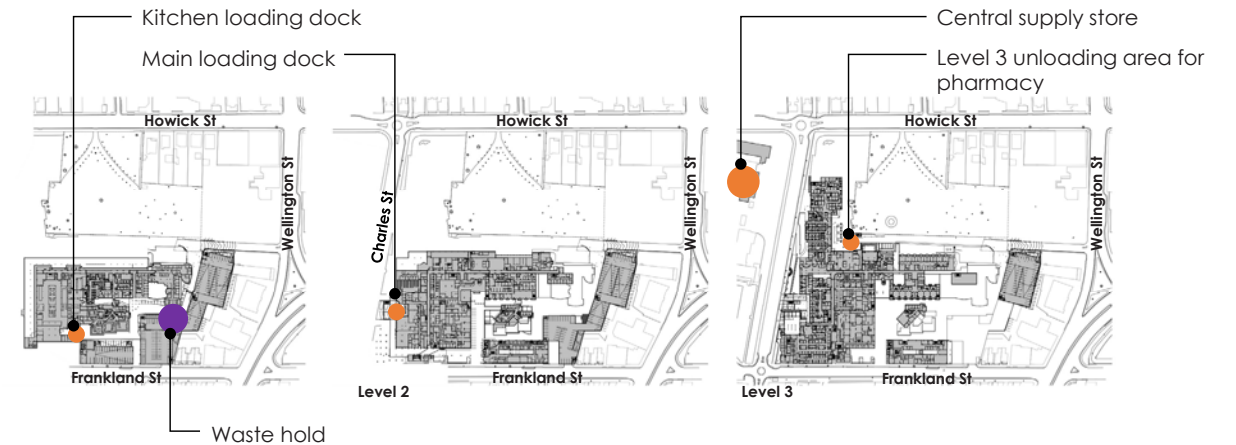
- Loading dock
- Waste Management including holding area for general waste, recycle waste, biomedical waste and kitchen waste as well as bin cleaning and holding area.
- Linen holds including soiled linen holding and clean linen holding
- Central supply unit
- Kitchen
- Maintenance workshops

In the current facility there are four loading dock and they are as follows:

- The kitchen loading dock on level 1 which serves the kitchen primarily. It is accessed via the back of the Holman Clinic. The driveway to this loading dock is narrow and difficult. The loading dock has limited truck maneuvering space only serving a single truck at a time.
- The main loading dock on level 2. It is accessed from Frankland Street and passes through under the ED building. The dock is extremely limited in size and was designed to cater for small 6 pallet trucks. These trucks are dispatched from the main central supply store behind the Anne O'Byrne building. Supplies are unloaded by the drivers and central supply staffs directly to the departments. These supply runs are continuous like a conveyor belt due to the limited size of the trucks.
- The existing loading dock and the driveway leading to the loading dock will not be able to accommodate larger size of trucks.
- The pharmacy on level 3 has a dedicated unloading area for delivery of its bulk fluid on Cleveland Street directly outside the pharmacy. This loading area was established not only due to its convenient location but also because the loading dock on level 2 is insufficiently size of the delivery truck to access.
- The central supply store behind the Anne O'Byrne building is the only location with a loading dock that can cater for large delivery trucks. This facility supplies the hospital and also other outlying facilities.



Noting that the central supply store is potentially relocated to a site further away from the hospital campus. It is advisable for the hospital to have an expanded loading dock that can accommodate bigger trucks to increase efficiency. Furthermore the expanded loading dock should allow for additional spaces that would allow for automated guided vehicles (AGVs) docking stations. This would future proof the facility should AGVs be adopted to increase efficiency in the future. In the near future the additional space would also minimise the amount of material that are held along the hospital corridors near the loading dock.



The main waste hold is located outside the hospital in Level 1 of the multistorey carpark building. The store is 110m2 and served by two large roller doors. The store contains a compacting skip for general waste, along with skips for medical waste and cardboard recycling. Waste bins are wheeled outside the building along the driveway behind Holman Clinic traversing through multiple public accessible areas to this room. This waste hold has limited bin wash and holding area.



Kitchen wastes and recycling waste are held in the kitchen loading dock on level 1 instead. These are exposed out in the open until they are collected from the same loading dock. These are not ideal arrangement it is recommended for a centralised waste management unit that is accessed from strictly restricted service corridor. Ideally this waste management will form part of the loading dock allowing waste trucks to dock with the waste compactors.



The current hospital has insufficient linen holding facilities. Currently linen are collected and delivered by an external subcontractor at the level 2 loading dock.

Hospital staffs would pick up the linen trollies and deliver them to the department, departmental staff would then decant to dedicated linen cupboards. Hospital staffs would take the soiled linen to return to the loading dock.

Currently these linen trollies are parked along the level 2 corridor leading to the loading dock due to inadequate storage of both clean and soiled linen.

It is recommended for larger separate storage rooms for both soiled and clean linen that are conveniently located at the loading dock.

The existing kitchen are reported to be sufficient but would need to be expanded if the hospital was to be expanded. The department has reported that it is possible for the facility to be moved offsite with a smaller satellite kitchen to remain to support the hospital café and act as backup for the hospital.

The corridor that services the hospital back of house is also shared with visitor's traffic as it is the main thoroughfare for visitors traffic to pathology and the pre-operative assessment unit (POAU). This is not ideal due to safety and security concerns. It is recommended for the back of house corridor to be restricted to staff access only. This can be achieved by the relocation of visitors and patient areas or by providing alternative access to these departments.

Other area currently located in the back of house area are:

- Staff amenities including staff change and gym
- Integrated Operation Centre (IOC)
- Health Information Management Services (HIMS)

The IOC can be relocated out of the back of house area provided an alternative location on the hospital grounds are found.

The hospital has adopted a Digital Medical Record (DMR) system which still requires physical spaces where physical records are stored and scanned digitally. The system may evolve into a completely digital system within the time period of the master plan which may reduce the space required for a physical medical record unit.

Primary Health

Currently located in Allambi which is a dated facility generally not suitable for usage as clinic spaces. Would require new clinic spaces that are convenient for patients and staffs preferably on hospital campus grounds but separate from acute services.

Pathology

The facility is generally well maintained and functioning well in the space. It has recently undergone refurbishment with a new waiting, collection area and office area. The attached mortuary is dated however requiring a refresh. The hearse garage is also separated from the mortuary by the main corridor which is not ideal although a second set of doors does allow the corridor to be closed for discreet transportation between the garage and the mortuary. Wayfinding is the main issue for this department as it has resorted to using a series of floor markings to try to guide visitors to the entry of the department. The department is located at the perimeter of the hospital bounded by the main corridor on level 2 and the adjacent orthopaedic clinic.

Pharmacy

Currently located on level 3 at the main entry lobby allowing convenient access by patients from the adjacent outpatient unit. The department is currently planning for a minor refurbishment to maximise the functional area inside the department.

It does not have a pneumatic station and would ideally require 2 stations. The unit does not deploy robots in its workflow but would anticipate its requirement in the future.

Department is currently landlocked and would need to be relocated to allow for future growth. It should be directly connected to the service corridor to allow for secure access to the staff drug dispensary counters. It should also be fronted at a central public junction close to the outpatient units to enable easy accessibility and wayfinding for patients.

Block D inpatient unit

The unit is generally dated requiring refreshing and services upgrade. It would also require share workspaces to allow for allied health and pharmacy staffs to work on the floor.

Currently all the wards in Block D has similar layouts but this does not suit the function to some of the wards and therefore would require replanning.

Other issues to Block D includes:

- Small ensuite which limits the ability for staff to assist patients
- Insufficient public and staff amenities on the floors
- Existing isolation room is not a negative pressure isolation room and lacks direct line of observation from the staff station
- Lack of shared workspaces for doctor writeups

Department staff is not satisfied with the central staff station model and wishes to explore other a central staff station free layout for the ward. This can be explored in the design phase.



Operating Theatres

There are two floors of operating theatres. The day procedure unit is on level 3 in the main clinical block directly accessed from the main entry area.

The general theatre complex is on level 5 of the main clinical block. The two department operates independently with separate recovery area and support spaces.

The CSSD is located on level 5 directly connected to the general theatre complex.

Would recommend relocating the day surgery to the general theatre floor and allow it to be operated as a single unit to share recovery, support spaces and staffing for efficiency.



Lack of expansion spaces and expansion corridor

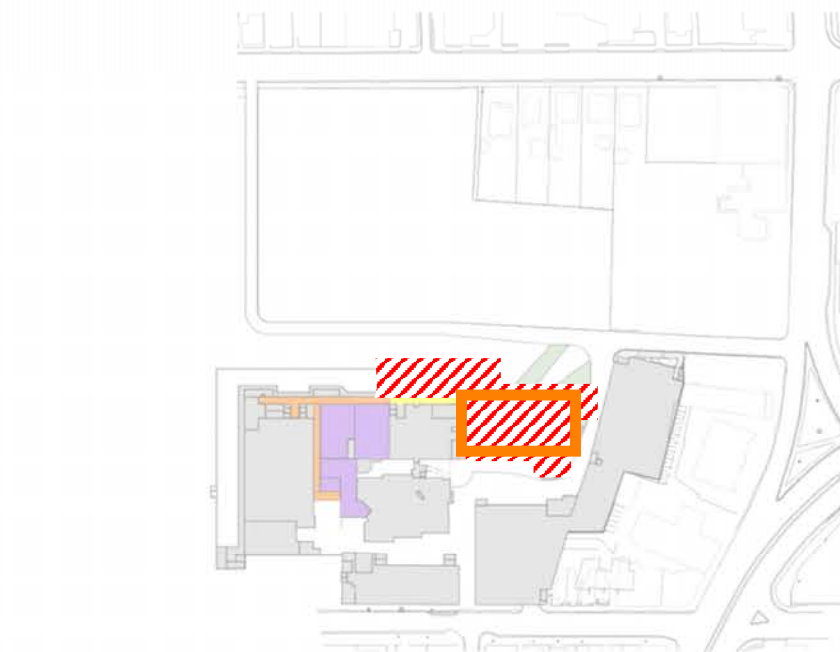
Majority of the clinical departments are landlocked with no option of expansion. Central corridors are also capped to become a deadend preventing expansion of the hospital.

6. Masterplan Development Criteria

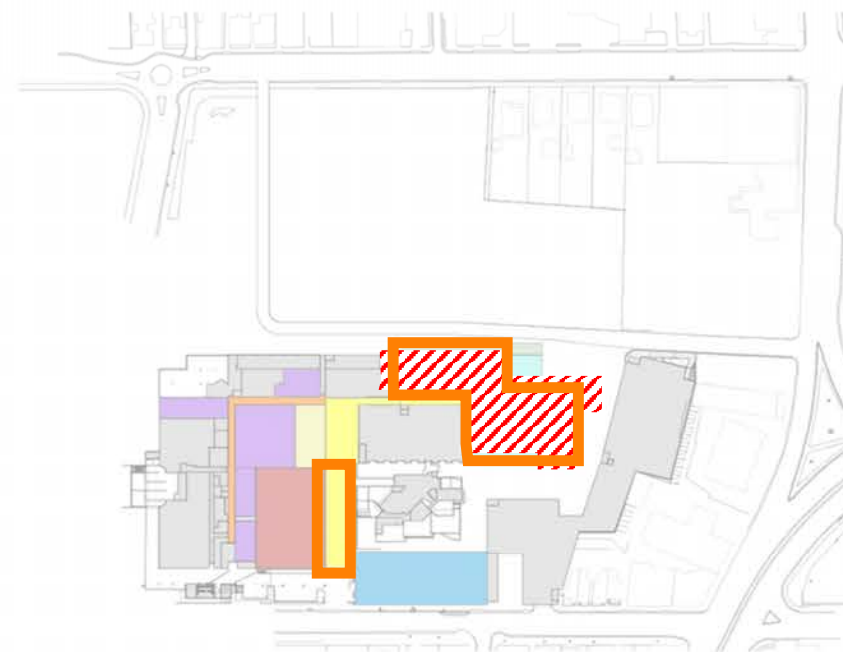
The proposed master plan is based on achieving the following objectives:

- To create a **new front entry and a dedicated hospital dropoff** for visitors
- To **improve wayfinding** within the hospital
- To create **clear clinical zoning** to improve efficiency of hospital departments and strengthen synergising relationships
- To **consolidate Operating Theatre zone**
- To **incorporate** Pregnancy Assessment Clinic (PAC) into Birthing Unit
- To find space for the **expansion of Emergency Department, Radiology and AMU**
- To improve **public accessibility and amenities to the Emergency Department**
- To provide a **new cath lab suite** and to collocate it with CCU
- To establish a **new Primary Health Hub**
- To **refurbish and expand the existing inpatient unit tower**
- To create a **new helipad** connected to the hospital via internal hospital circulation system
- To **consolidate the hospital back of house** with a unified and expanded hospital loading dock. The consolidated hospital back of house would contain a consolidated waste management department, sufficient linen holding facilities and a new pharmacy.
- To establish **dedicated services corridor and services lift system** separated from the visitor's corridor and lift system
- To establish **future expansion zone** beyond the master plan
- To promote biophilia by **integrating nature into the hospital** and develop better connection with Ockerby Gardens

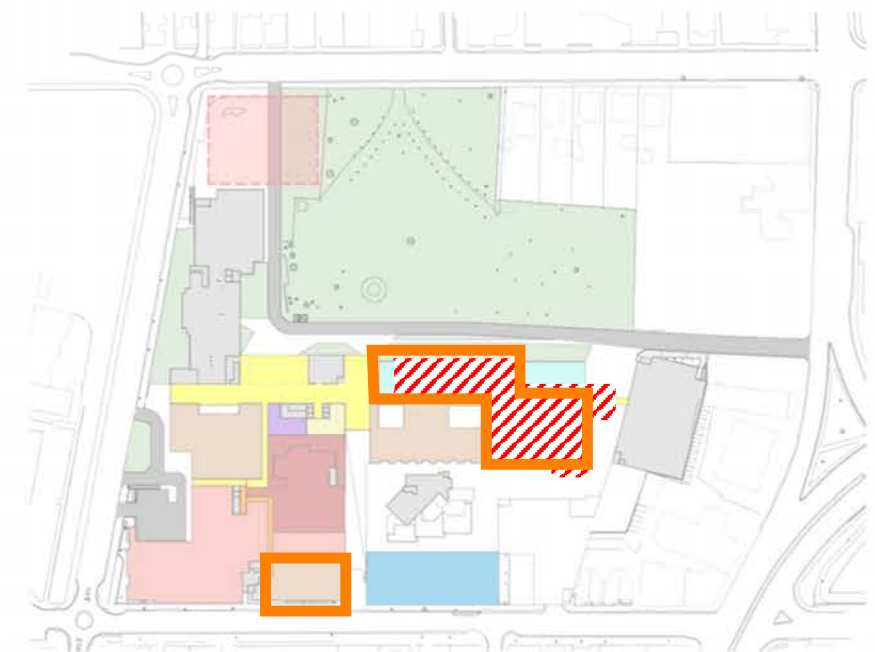
7. Masterplan



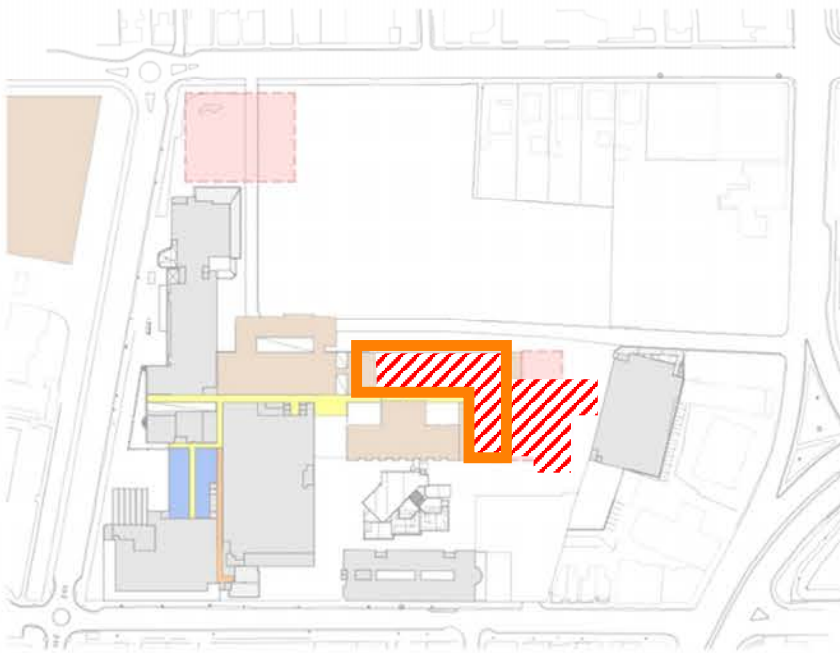
Level 1



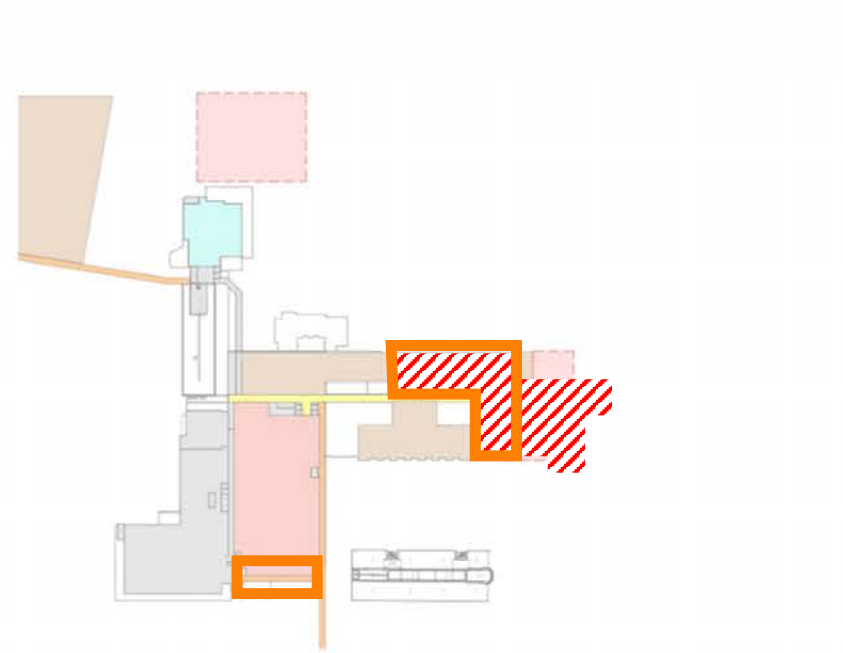
Level 2



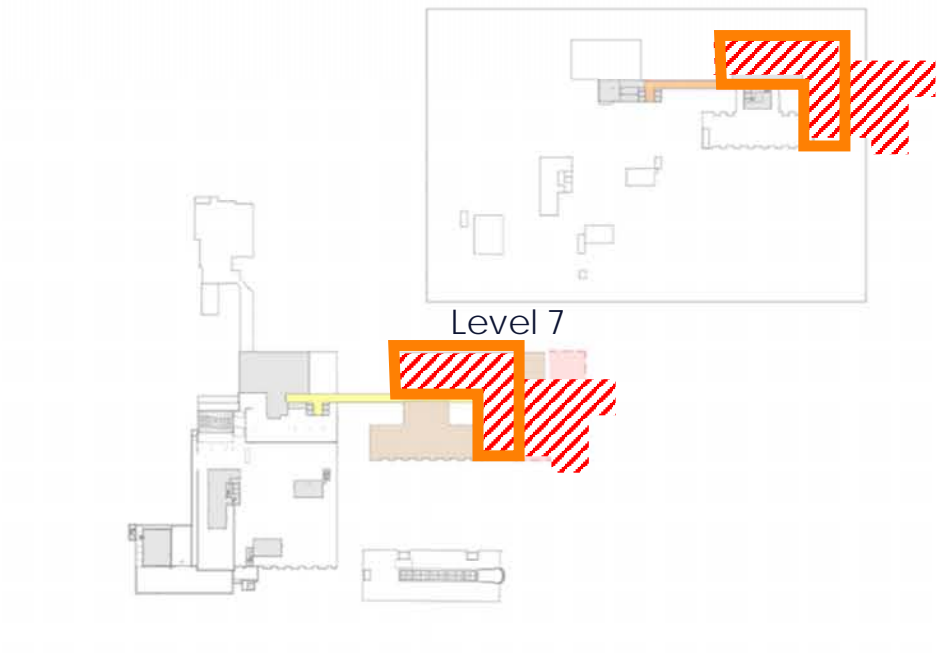
Level 3



Level 4



Level 5



Level 6

Level 7

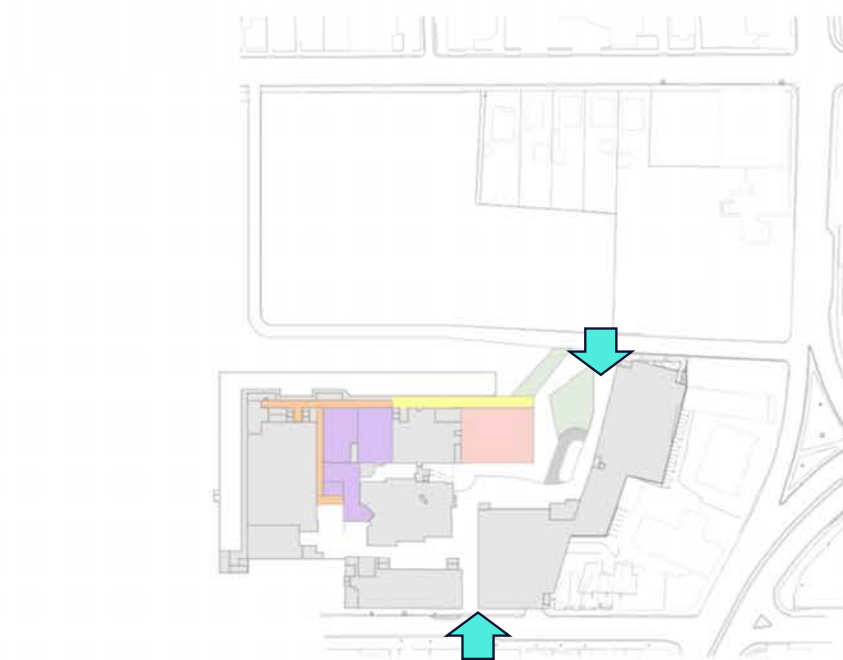
- | | |
|---|--|
| Inpatient | Support |
| Outpatient | Research/ Education |
| Clinical | Visitors circulation |
| Clinical Support | Services circulation |
| Offices | Future expansion zone |

- | |
|--|
| New building |
| Required demolition |

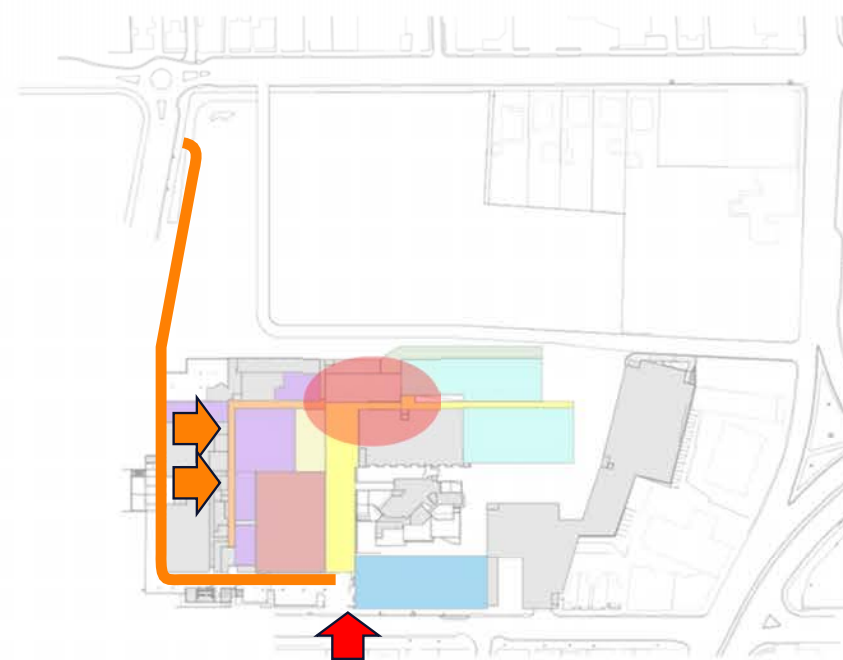
New build vs demolition

Land for expansion are vital to the redevelopment of the hospital and is therefore a priority issue to be resolved in the master plan. The site occupied by the existing Northside Mental Health Unit and R-block is considered a prime location for demolition for redevelopment. The new available land would allow for a new tower building that would increase the capacity of the existing inpatient unit tower. The podium of this new building would allow expansion to the outpatient services.

The new building would serve as the landmark framing the new entry into the hospital on Cleveland Street.



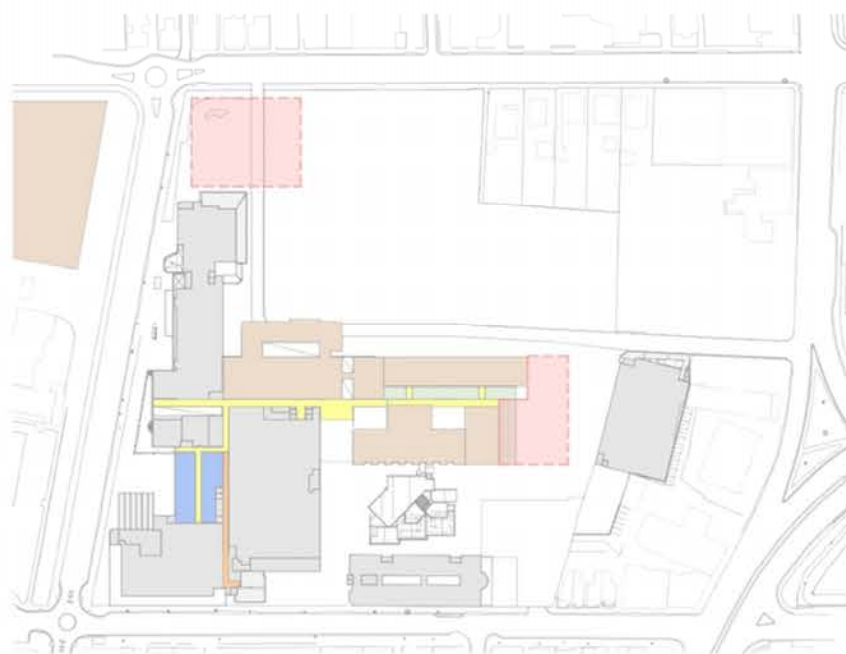
Level 1



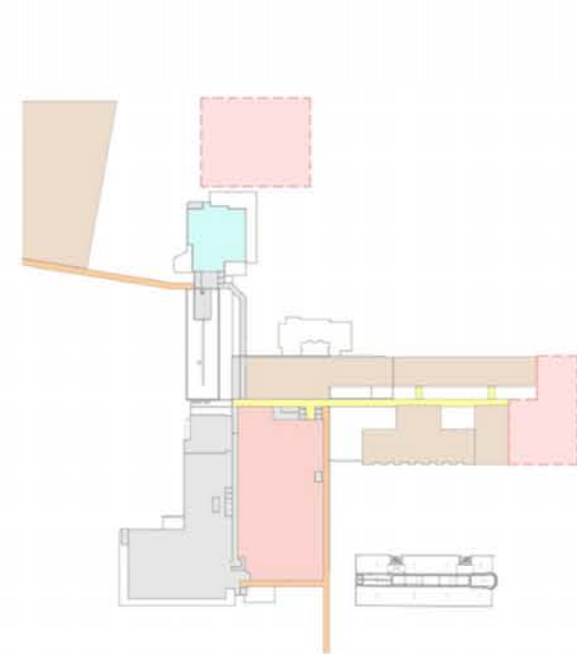
Level 2



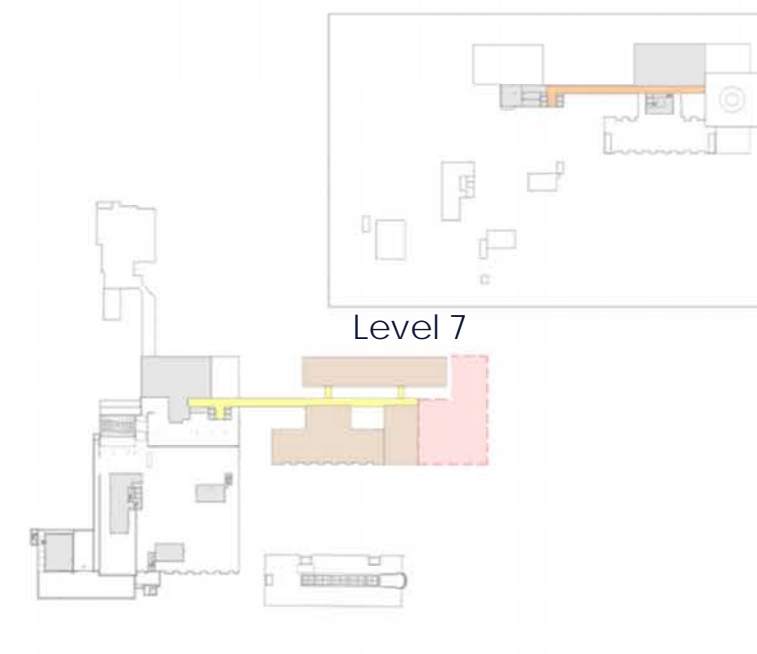
Level 3



Level 4



Level 5



Level 6

Level 7

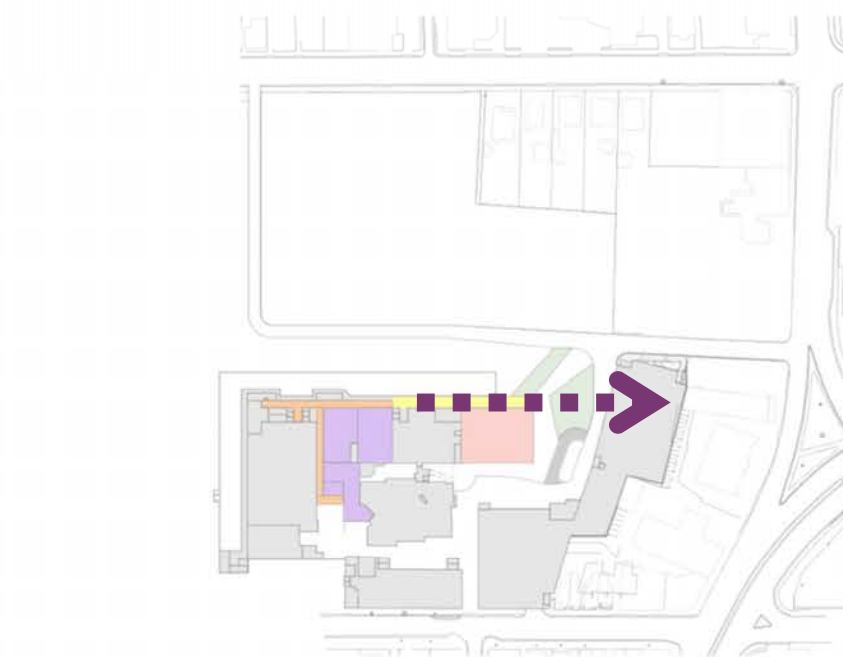
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|------------------|-----------------------|
| Inpatient | Support |
| Outpatient | Research/ Education |
| Clinical | Visitors circulation |
| Clinical Support | Services circulation |
| Offices | Future expansion zone |

- | | |
|------------------|-----------------|
| Pedestrian entry | Services entry |
| Vehicular entry | Ambulance entry |

New Hospital dropoff

The master plan proposes for the new hospital entry to be relocated to Cleveland St which will become the visitor's hospital dropoff. A new landscaped forecourt will connect the hospital dropoff to the hospital main entry which directly leads into the main heart of the hospital which are populated with retail functions including the hospital retail kiosk, café and restaurants, and also the new hospital main reception/

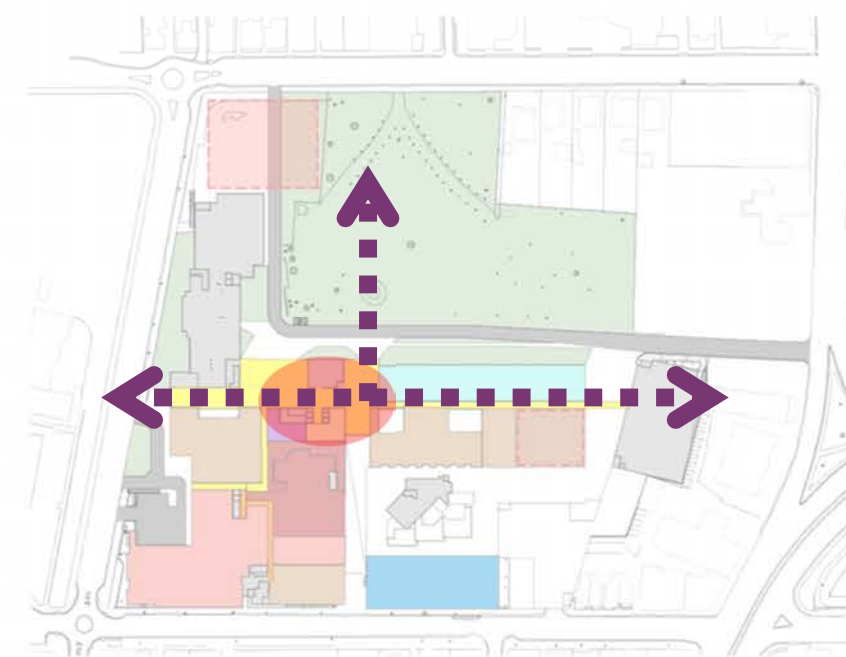
information desk as well as the new seating gallery. The existing chapel will remain in its existing location unaffected by the master plan.



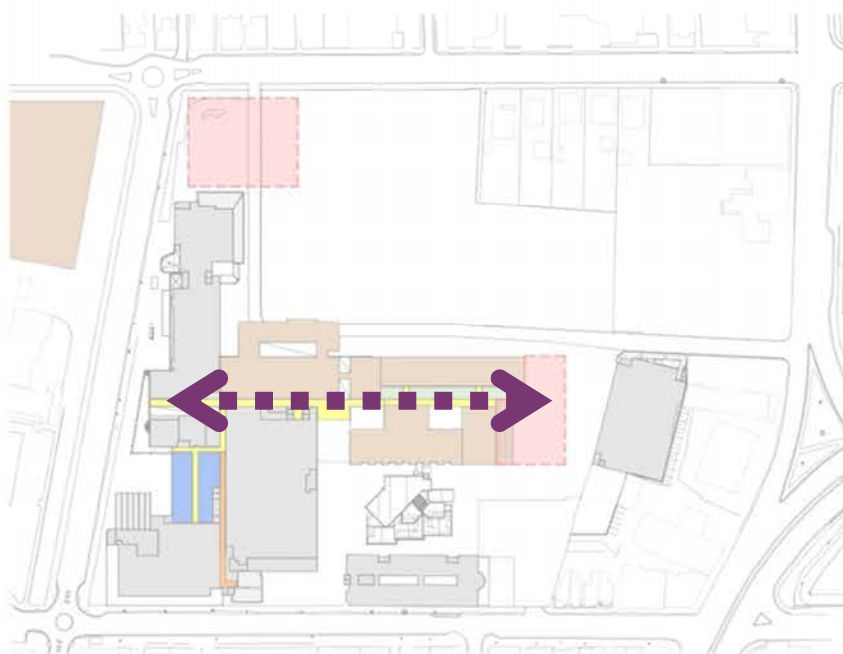
Level 1



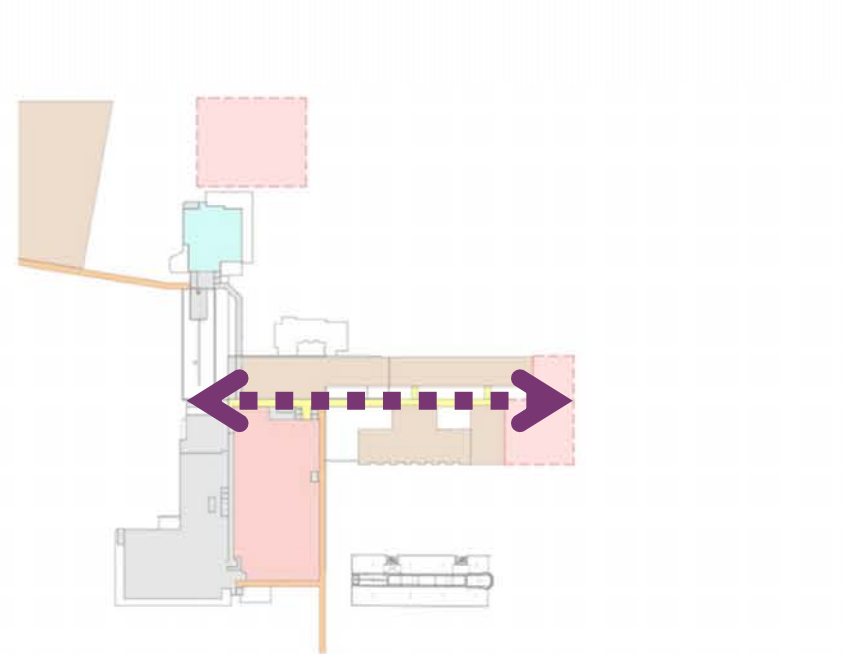
Level 2



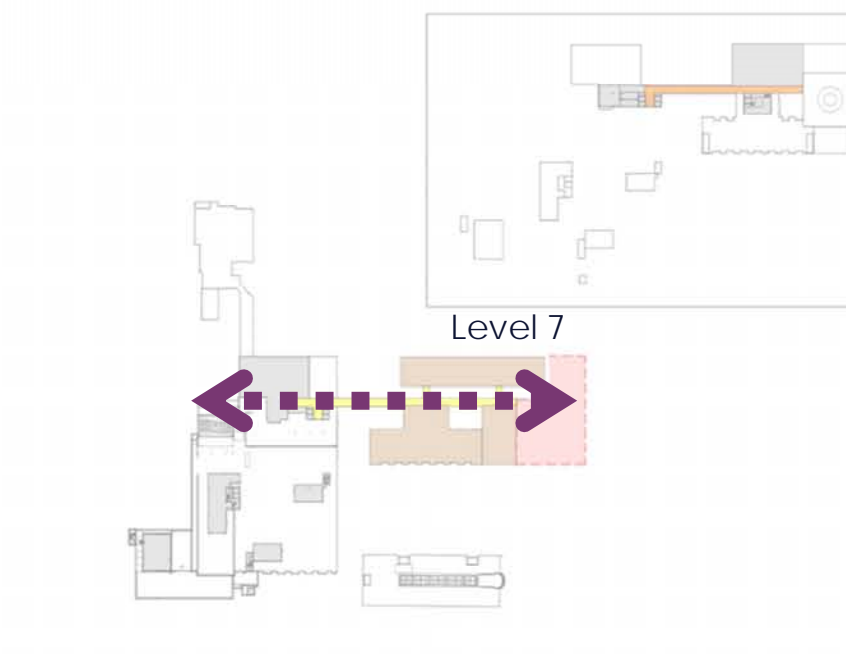
Level 3



Level 4



Level 5



Level 6

Level 7

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| ■ Inpatient | ■ Support |
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| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

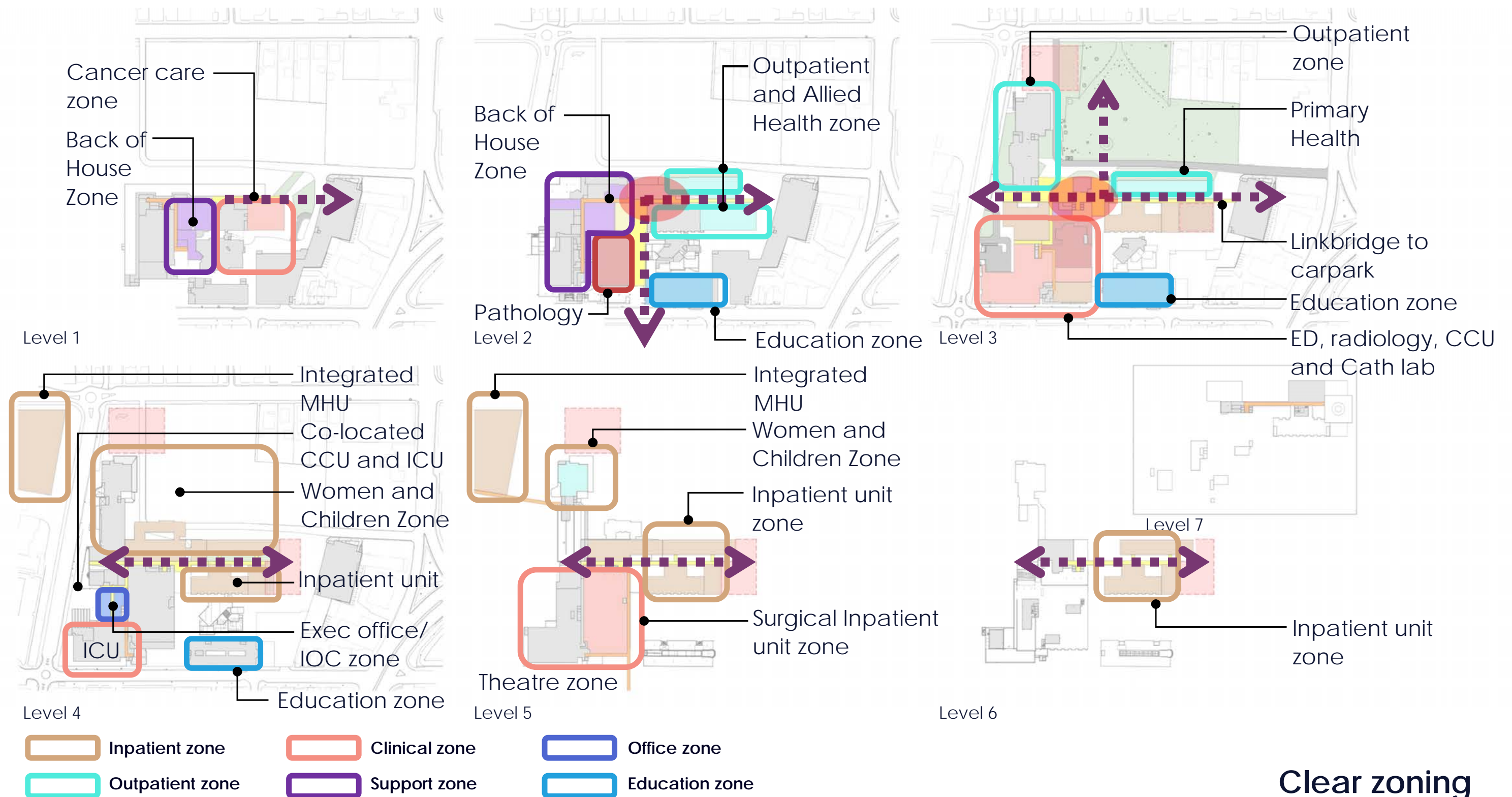
Clear axis are established in the hospital in the form of the new hospital internal streets that spans from the central heart of the hospital.

- To the east it will connect to the existing Charles Street entry and the outpatient unit at K-block.
- To the north the hospital internal street will expand down to level 2 and create a new Frankland St entry. The connection from level 3 to level 2 will be marked architecturally by a generous central stair and a double heightened internal street scape that are stretched all the way to the new Frankland Street entry.

- To the west a new link bridge on level 3 will span over the road to connect into the existing multistorey carpark.
- To the south the new landscape forecourt along Cleveland Street provides a visual and physical connection back to Ockerby Gardens encouraging utilisation of this vast greenery by staff and visitors alike.

This simplifies the visitor circulation inside the hospital and would improve on wayfinding.

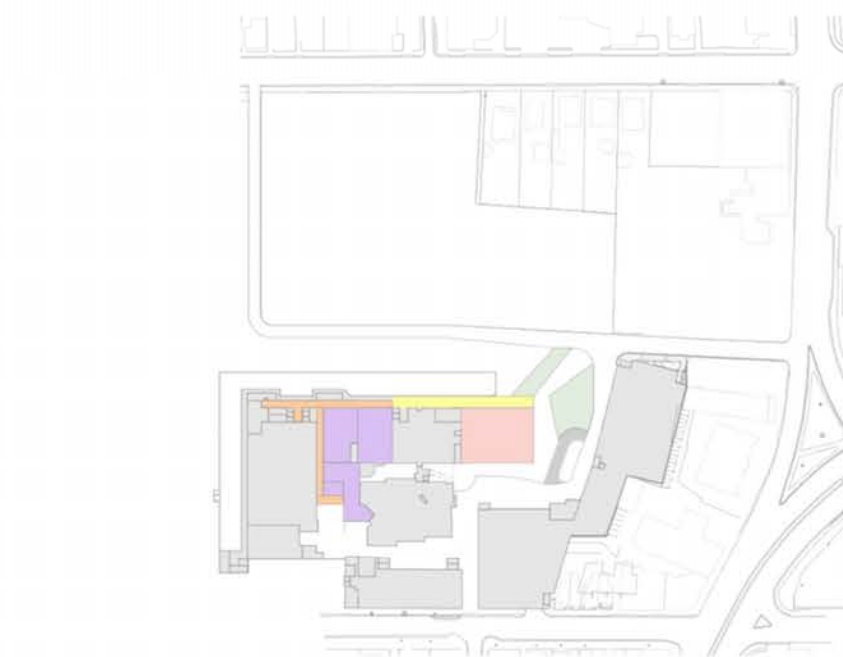
Improve wayfinding



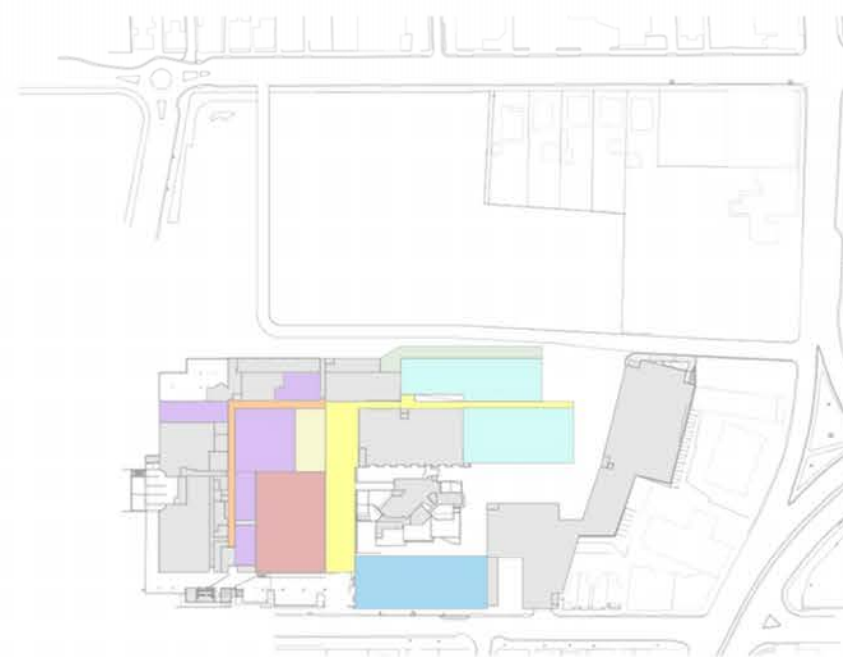
Clear zoning

Distinct clear zoning of hospital departments are established and aligned to the hospital axis and located on the relevant floors:

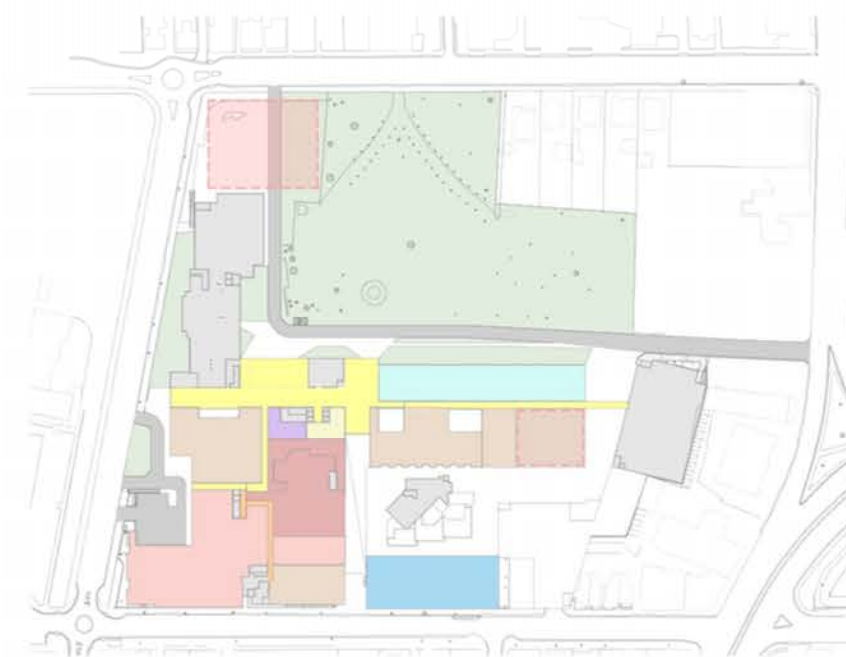
- The operating theatres are consolidated into a single department
- The inpatient units are all consolidated into a single tower. Allowing future flexibility in the management of beds based on changing caseload and clinical services profile. Surgical ward is relocated into this tower but located on level 5 allowing easy access from the theatres.
- The new CCU is collocated with the new cath lab allowing a better patient flow. The CCU is also conveniently connected to a set of service lift which is connected directly to the ICU on level 4 and the theatres on level 5.
- Primary Health services will be located on campus in a single hub.
- A new outpatient wing is established and located conveniently next to the new main entry of the hospital. This allows expansion of outpatient services without it stretching too far away from the main entry and dropoff of the hospital.
- A consolidated women's and children precinct
- Consolidation of outpatient, inpatient and clinical zoning allows flexibility in the management of the hospital, enable future expansion, and would assist wayfinding for new visitors.



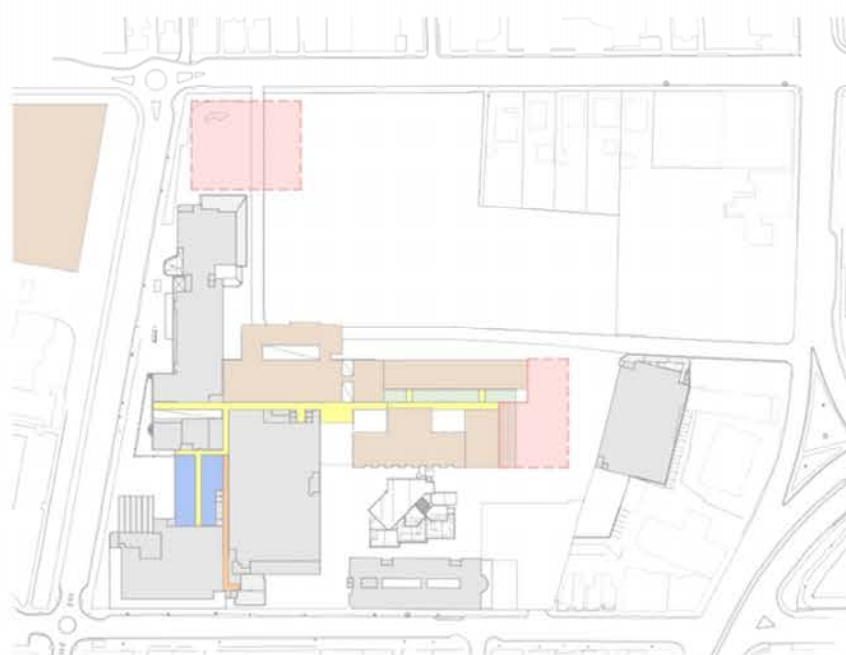
Level 1



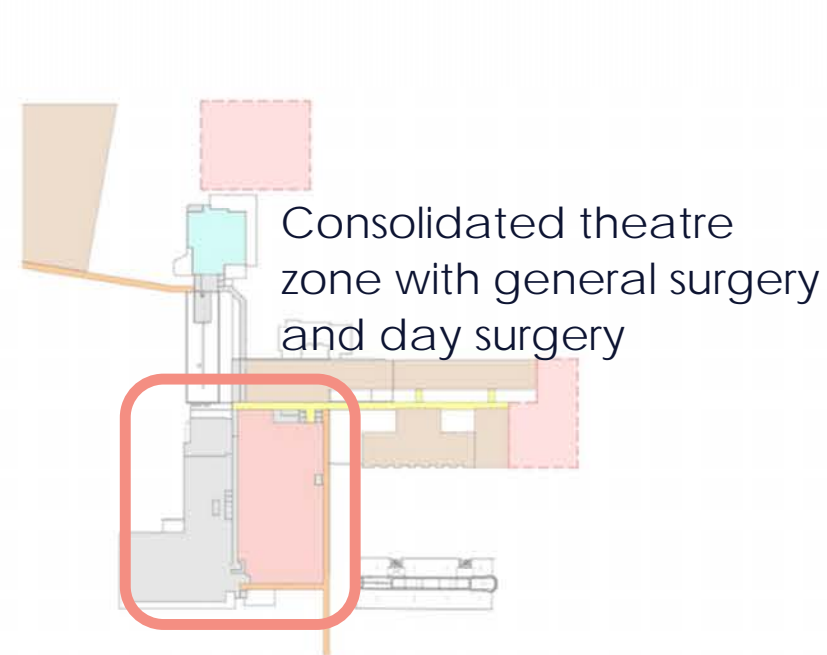
Level 2



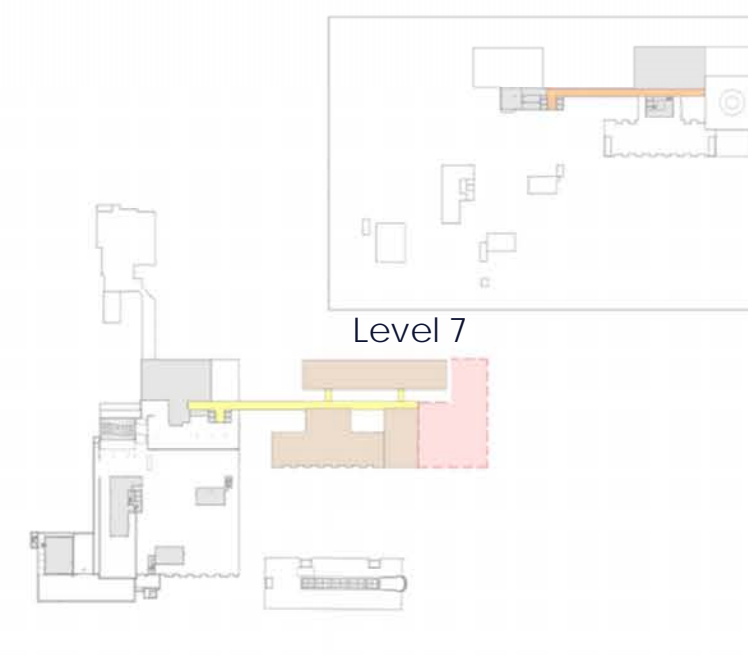
Level 3



Level 4



Level 5



Level 6

Level 7

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| ■ Inpatient | ■ Support |
| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

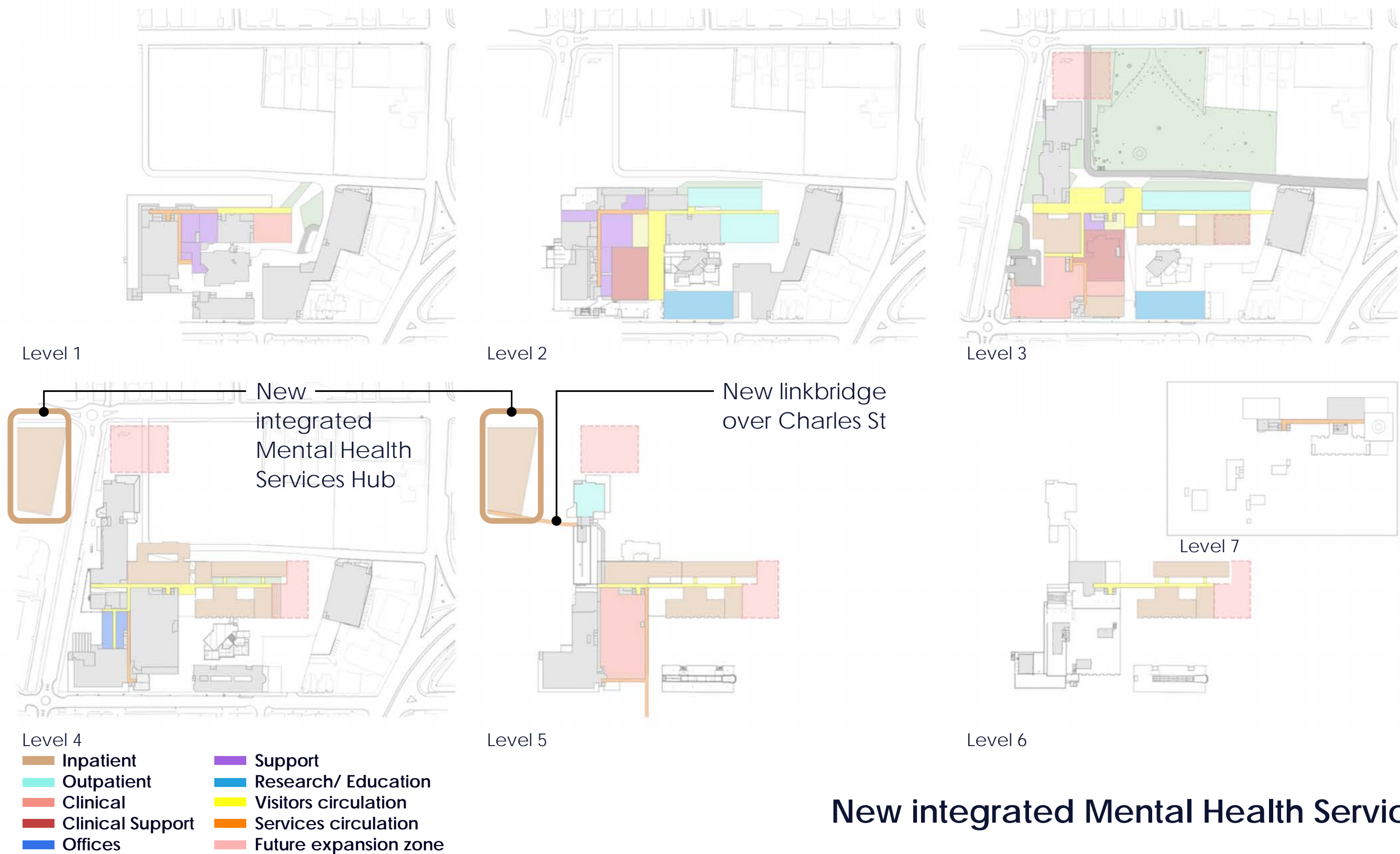
Consolidated theatre zone with general surgery and day surgery

Consolidated Operating Theatre

Level 5 will become the consolidated theatre floor. The new department will include day surgery services, the Surgical Short Stay Unit (SSSU) and theatre supports such as change rooms and offices that were previously located on level 4 of the hospital.

The relocation of day surgery services will allow sharing of resources, recovery bed bays and theatre

supports such as CSSD services. The proposed relocation provides opportunity to create new theatres and to assign smaller existing theatres to service day surgery cases instead. It also provides opportunity for the expansion of the CSSD.

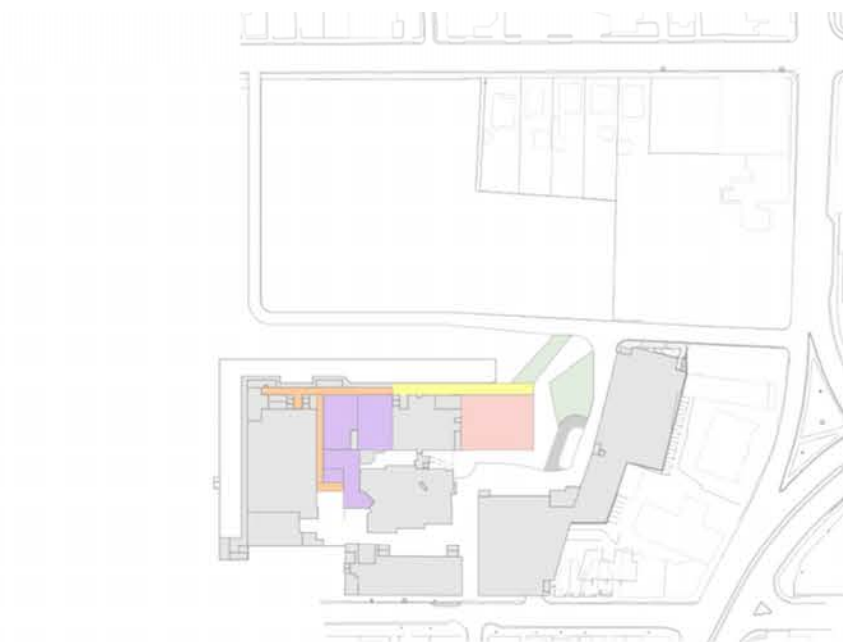


New integrated Mental Health Services Hub

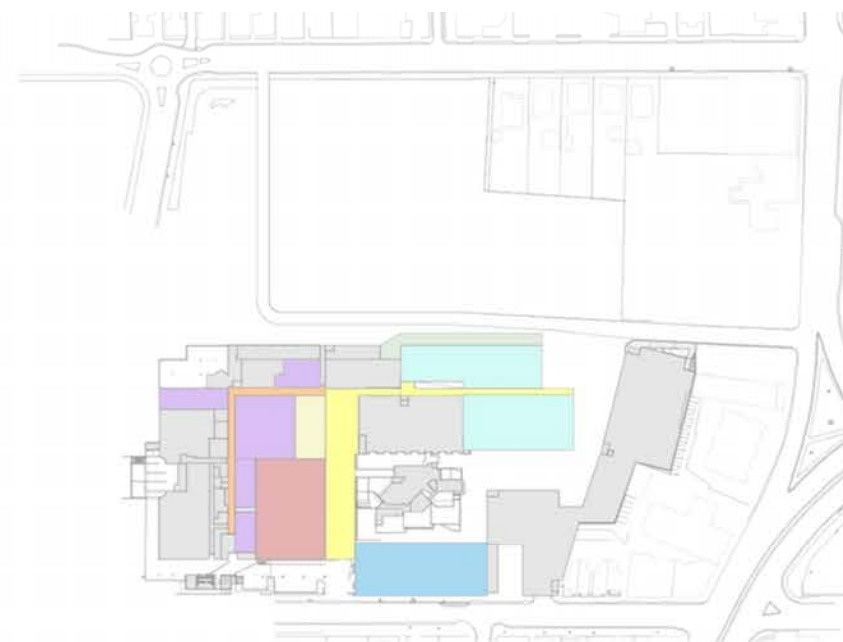
The Anne O'Byrne site will be utilised for the new Integrated Mental Health Services Hub. This new facility will consolidate the following services:

- Acute mental health inpatient from Northside Mental Health Unit
- Mental health outpatient services from Viewpoint site
- Drug and Alcohol services from the Mulgrave building adjacent to Allambi.
- Social works and other community mental health and outreach services

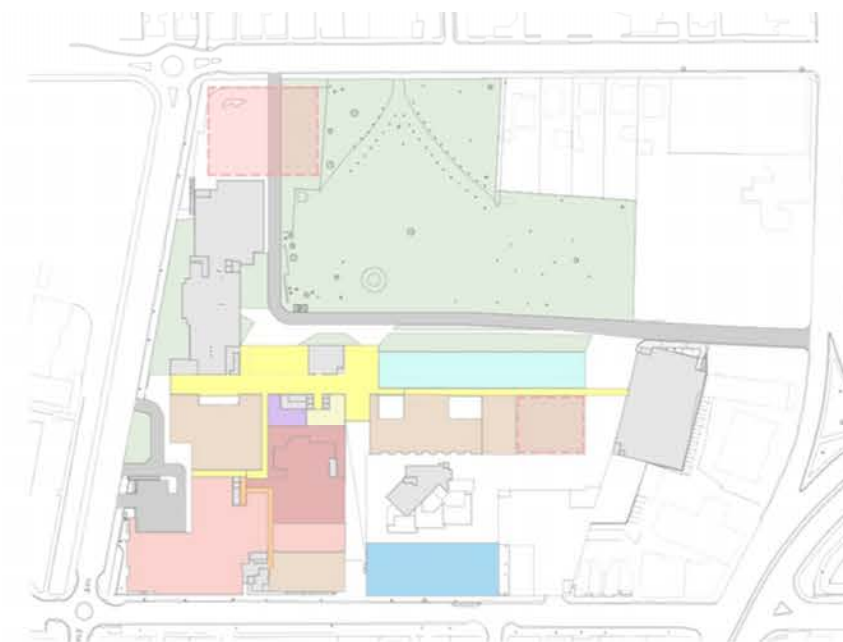
The facility will be directly connected to the hospital via K-block allowing transportation of patients, services traffic and rapid deployment of the code blue team where required.



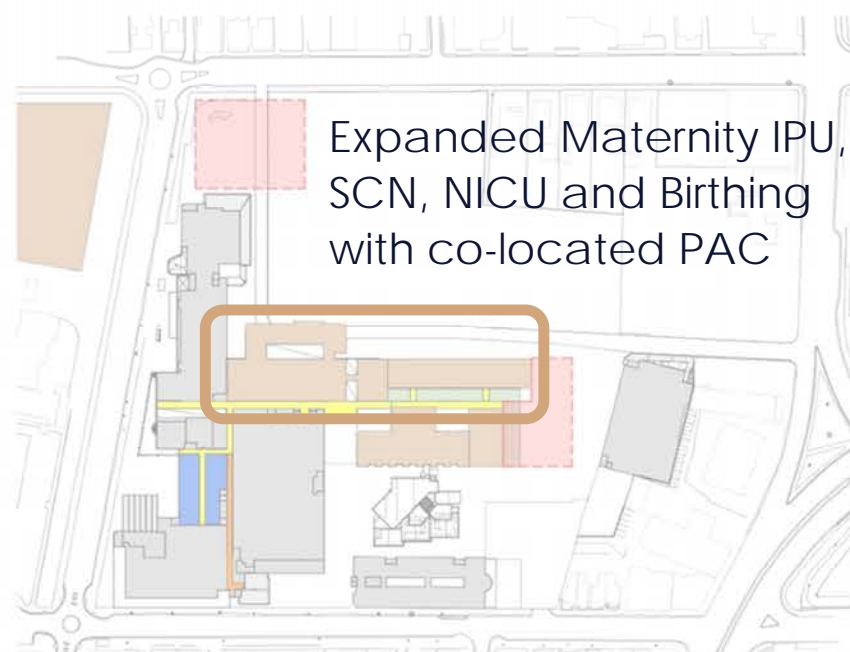
Level 1



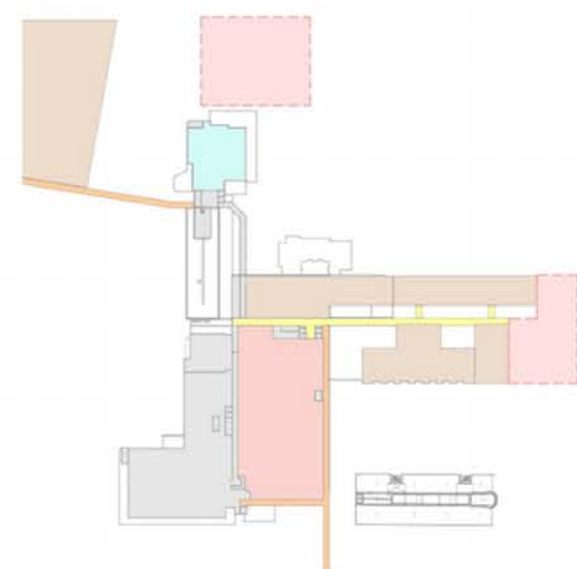
Level 2



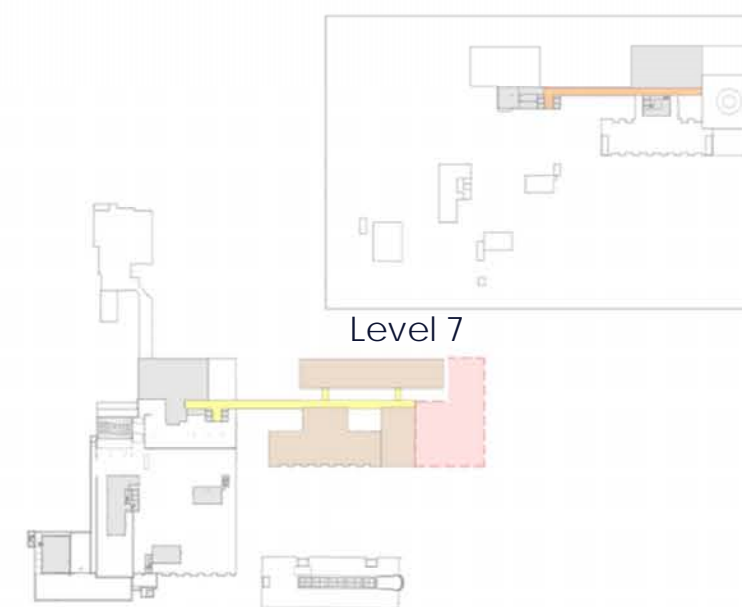
Level 3



Level 4



Level 5



Level 6

Level 7

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| ■ Inpatient | ■ Support |
| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

Expansion to the maternity and birthing services are completed in three phases. The first phase requires the relocation of the existing paediatric allied health into level 5 of K block.

The Woman and Children's administration unit would be relocated into this space temporarily with its current existing location occupied by the Pregnancy Assessment Clinic (PAC). This allows the latter to be in close proximity to the birthing unit which improves the staffing work flow.

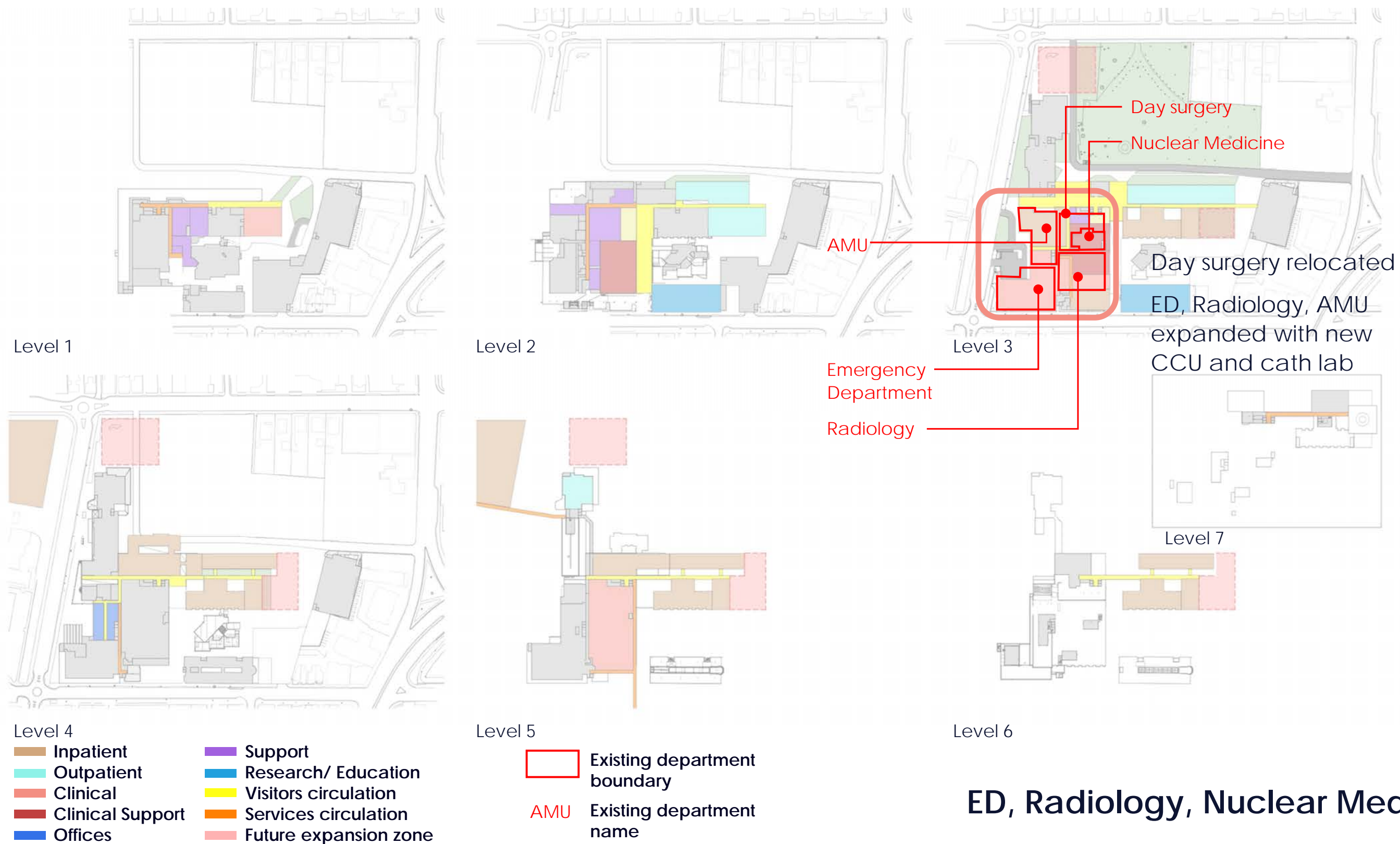
In the second phase, which happens in Stage 4 of the master plan, the maternity IPU will be relocated into the new R block on the same floor and connected directly into the existing birthing unit.

Refurbished Birthing

The arrangement allows the third phase of the unit's expansion allowing a gradual phased 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.

The final completed department would allow the birthing unit to include the pregnancy assessment clinic (PAC) and the Woman and Children's administration wing, both of which were previously separated, within the unit.

The new department would form a continuous link with existing K-block forming a single Women and Children precinct.



A new CCU would be constructed above the existing services driveway along Frankland Street in Stage 1 of the master plan.

The Neurology outpatient would be relocated into a temporary clinic space on level 5 making available expansion space together with the vacated nuclear medicine unit.

The Radiology would decant into this space allowing a gradual multiphase refurbishment of the unit as well as the creation of a new Cath lab suite which is collocated with the CCU for better patient flows.

ED would then expand into the space previously occupied by the radiology which is unlocked by the outward expansion of the department.

The Day Procedure unit would be relocated to level 5 to form a consolidated Operating Theatre complex in the final stage of the master plan allowing expansion of the Radiology in the same stage.

Alternatively, it is also an option to relocate the CCU to level 5 instead.

Level 5 Cath Lab Alternative



It would relocate into the space currently occupied by Clifford Craig and the maternity plantroom. This option allows the opportunity for new maternity plant, which needs replacement, which will be located on top of the birthing unit on the same floor.

In Stage 2 of the master plan the cath lab services can be temporarily relocated to level 5 by building a new Cath lab by:

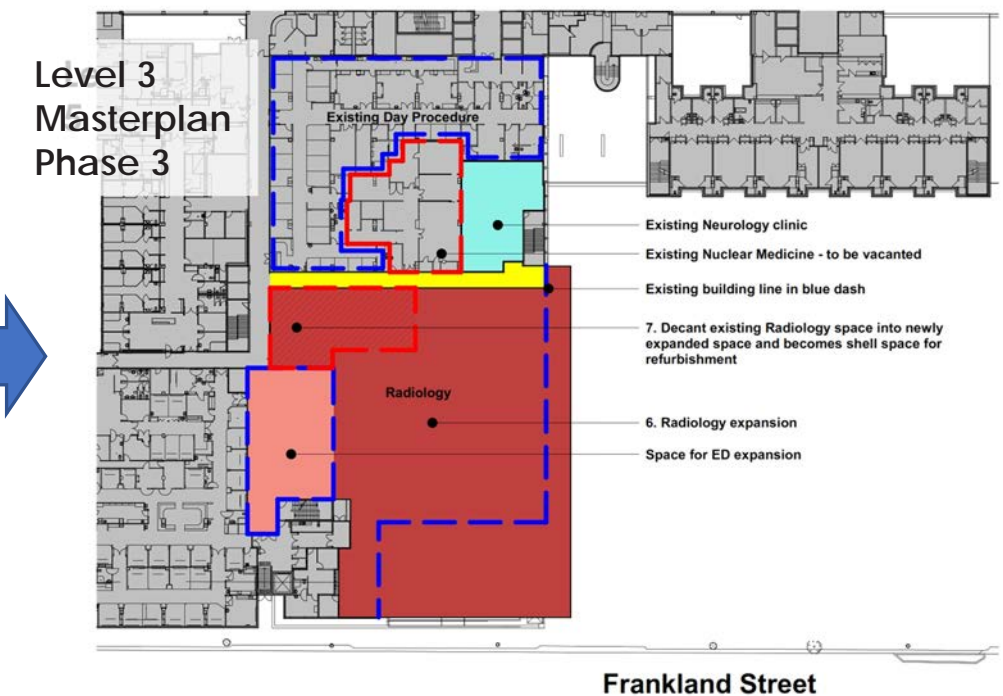
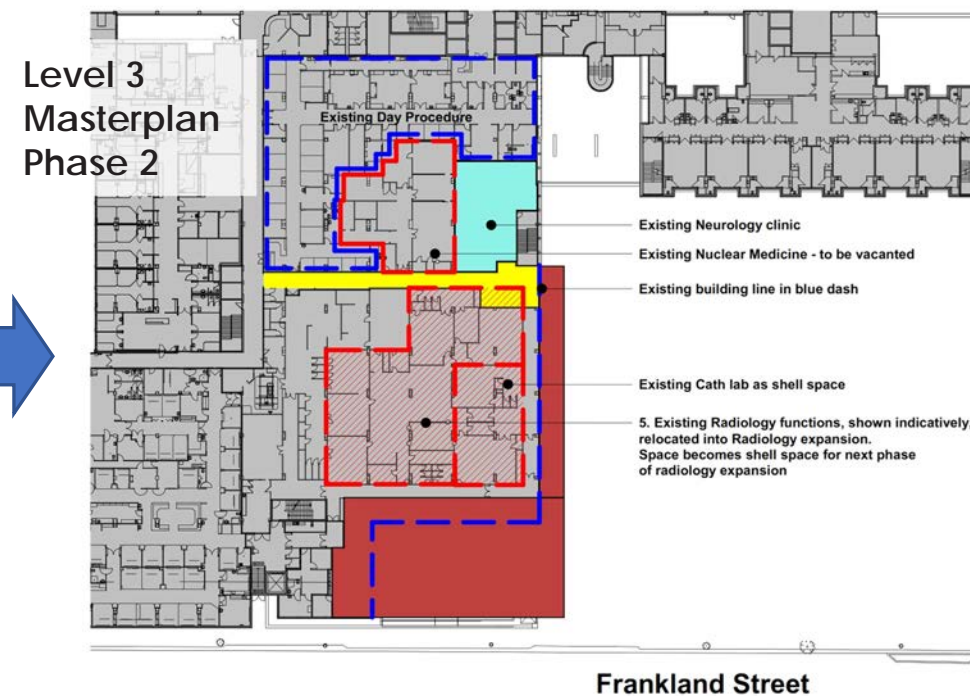
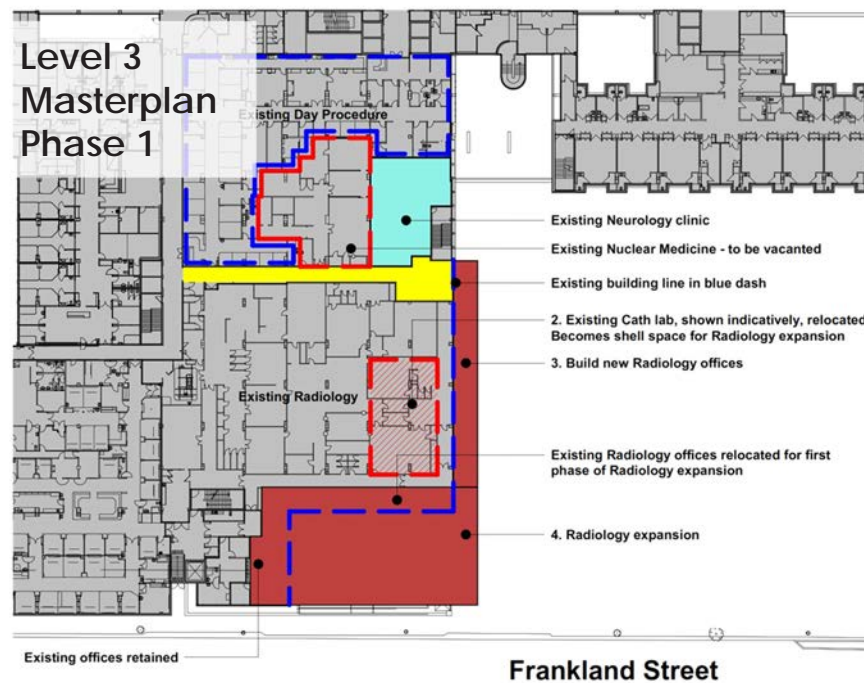
- Utilising spaces from support spaces of the SSSU
- refurbishing an operating theatre
- demolishing 6 beds from the surgical ward

In all three options the new cath lab suite would be dependant on the neighbouring SSSU and the existing theatre complex for holding/ recovery bays and support spaces until Stage 5 of the master plan which would consolidate the cath lab as part of the consolidated operating theatre complex.

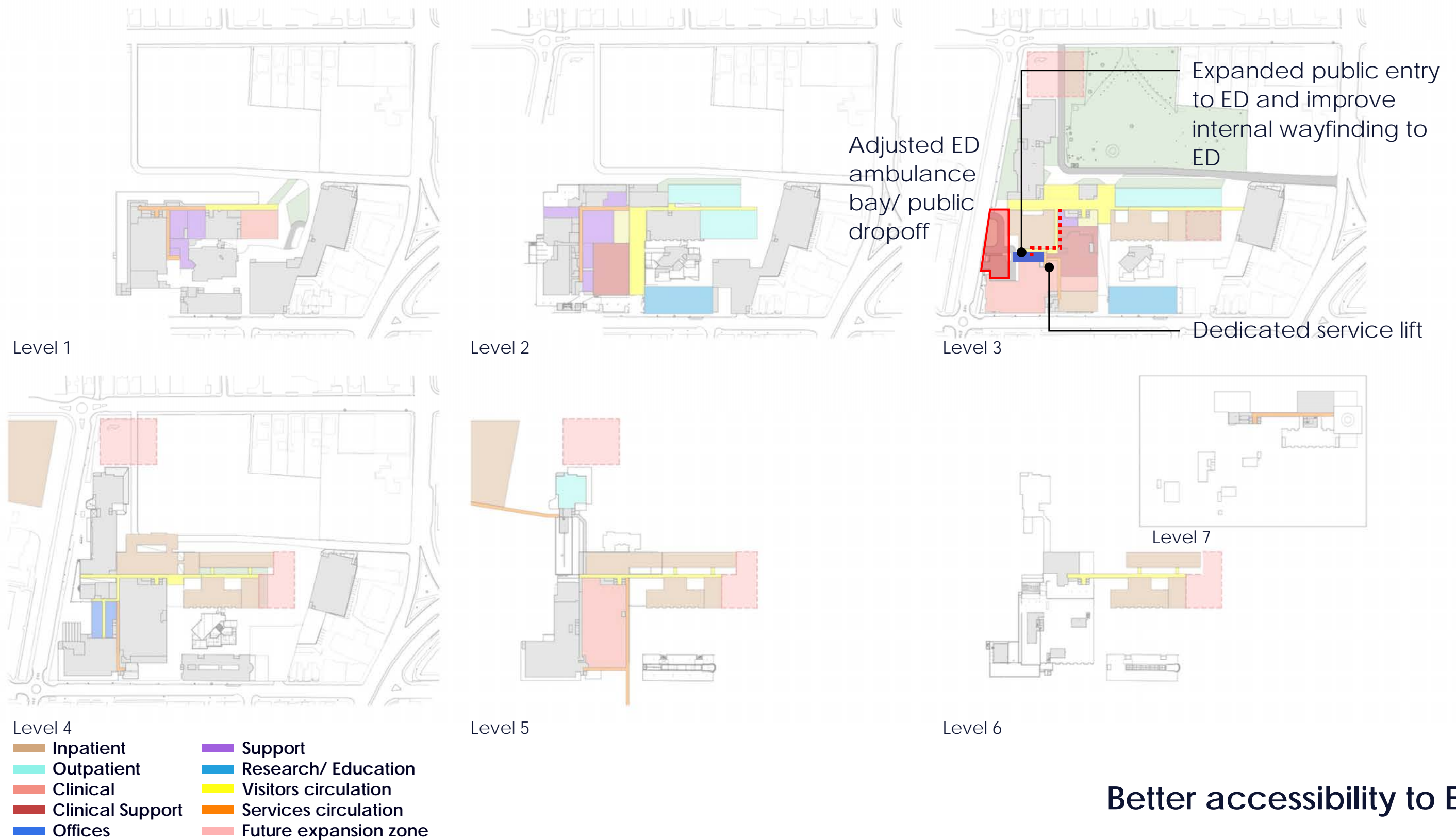
Noting that consolidation only means consolidation of holding/ recovery bays and support spaces. The cath lab can still remain external to the sterile zone for staff work flow reasons.

It may also be possible that cath lab services are provided by the existing hybrid theatre on level 5 in the interim instead therefore even lower capital cost to this option.

This alternative option allows more decanting and expansion spaces for the Radiology on level 3 which would simplify the expansion strategy of the department, reduce risk of services interruption as well as better opportunity to deliver the best outcome as there will be less restrictions arising from the decanting strategy that may contradict good health facility planning principles.



This option would also allow for more spaces on level 3 which would be dedicated as front of house spaces but are also soft expansion spaces for expansion of the Radiology and ED in the future beyond the requirements of the master plan.

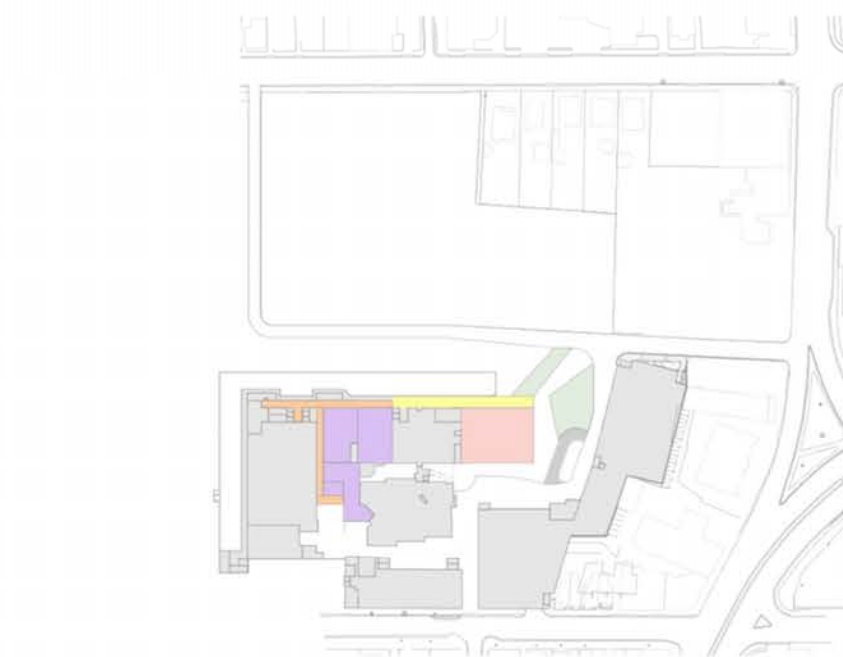


Better accessibility to ED

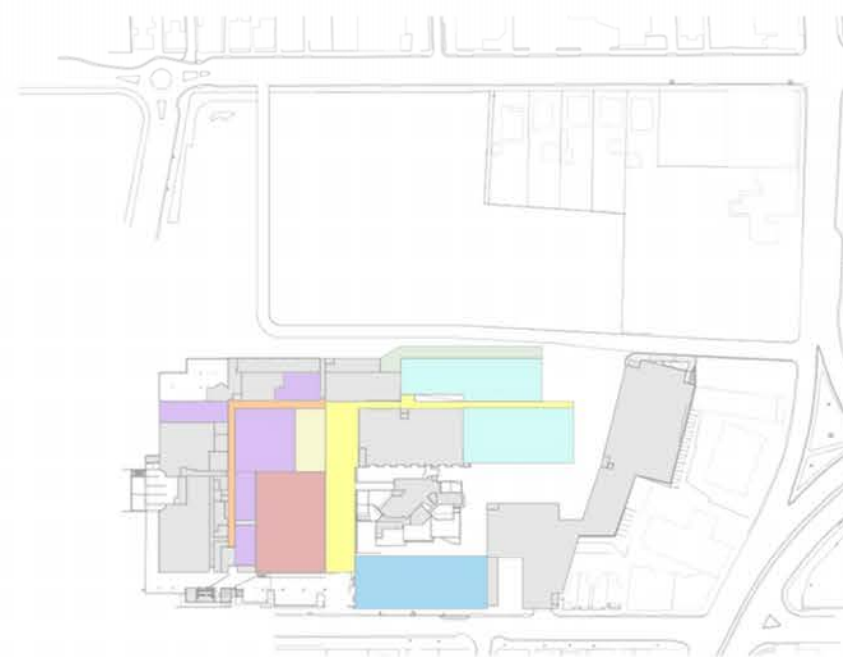
The master plan will improve accessibility into ED in the following ways:

- Lengthened visitors dropoff from Charles Street allowing two lane driveway with one of the lane dedicated for dropoff.
- Reorganised ambulance parking bay with a separate entry and exit driveway allowing unidirectional travel and additional ambulance bays
- New emergency department waiting room
- Better physical and visual separation of the ambulance triage bays from the public area

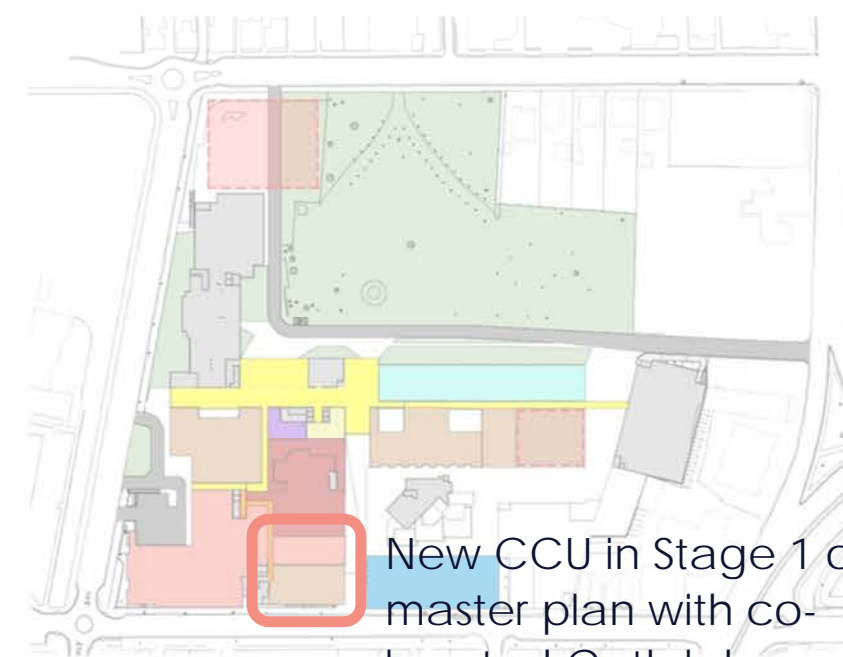
- Better external pedestrian pathway linking the emergency department entry from the Charles St entry
- Better internal visitor corridor connection with easy access from the central heart of the hospital.
- Allows an additional bank of dedicated service lift for patient transportation to ICU, theatres and the wards.



Level 1

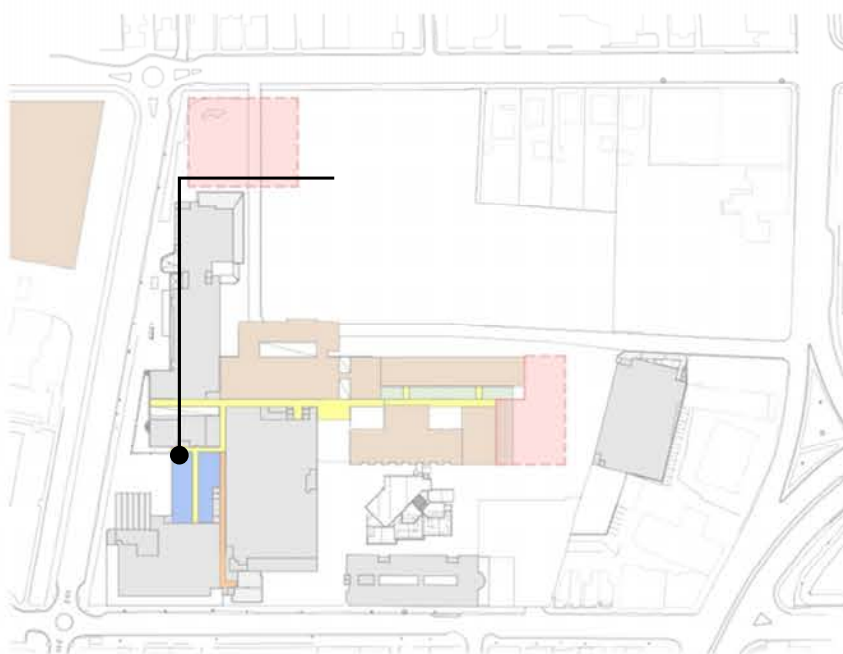


Level 2

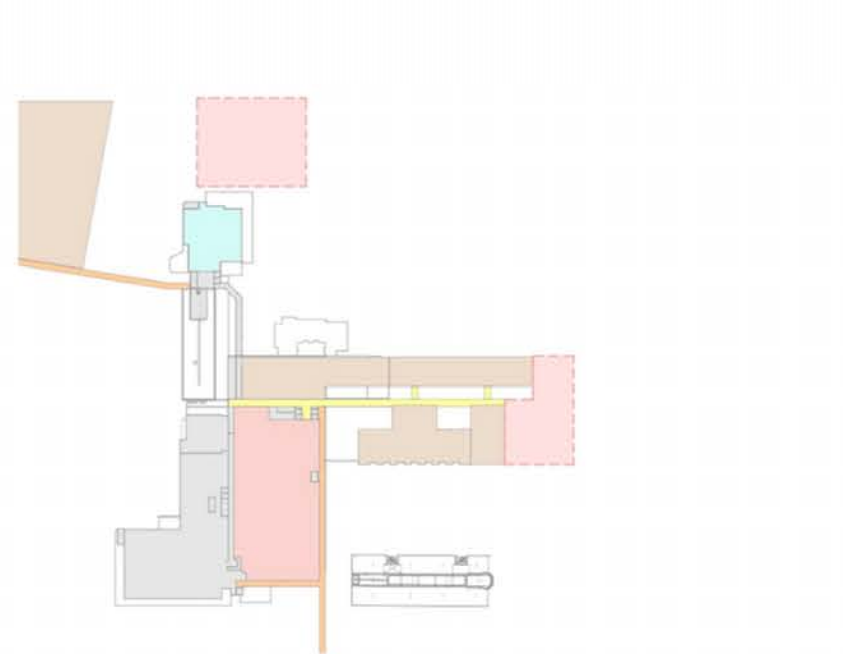


Level 3

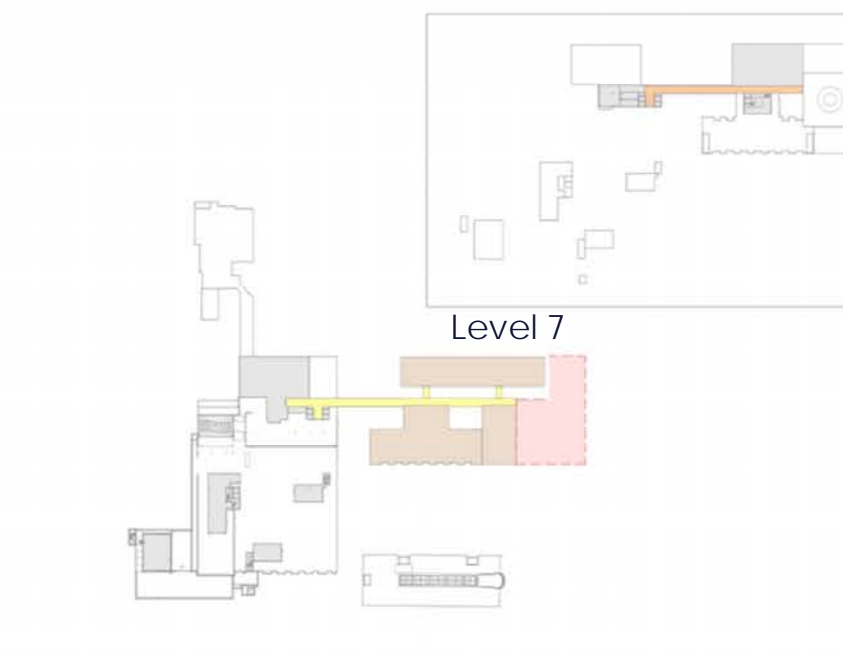
New CCU in Stage 1 of master plan with co-located Cath lab



Level 4



Level 5



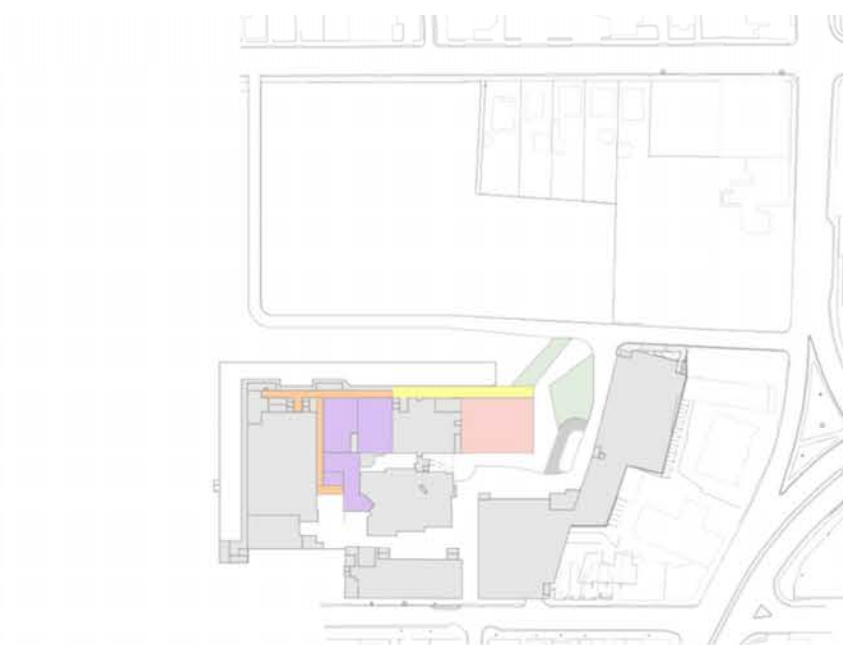
Level 6

Level 7

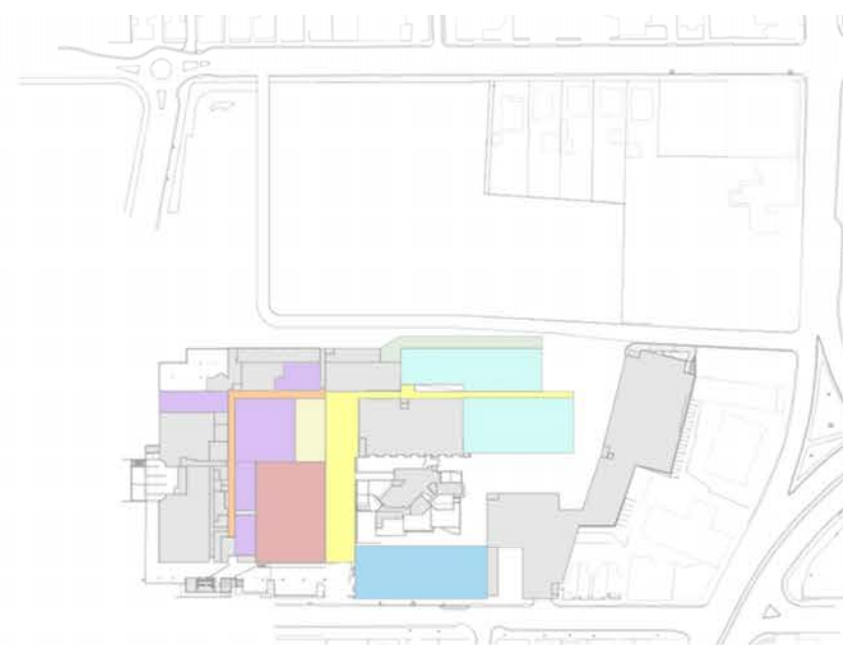
- | | |
|---|--|
| ■ Inpatient | ■ Support |
| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

The new coronary care unit (CCU) would be constructed in Stage 1 of the master plan which also allows for the collocation with the Cath lab. The new space would have sufficient area for 2 cath labs and associated support spaces. It is assumed that it may be possible for some support spaces to be shared between the CCU and Cath lab or between the Radiology and Cath lab.

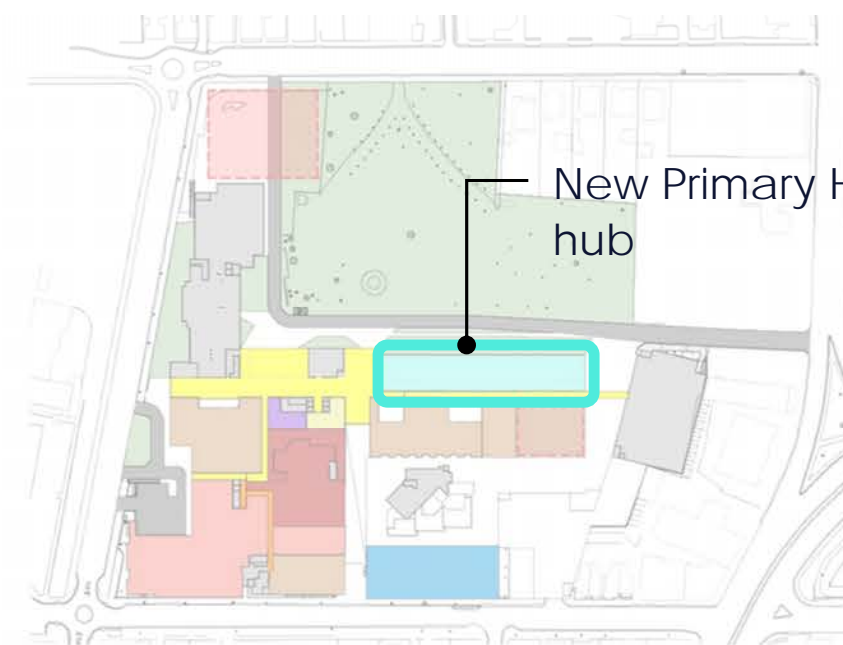
Co-located Cath lab and CCU



Level 1

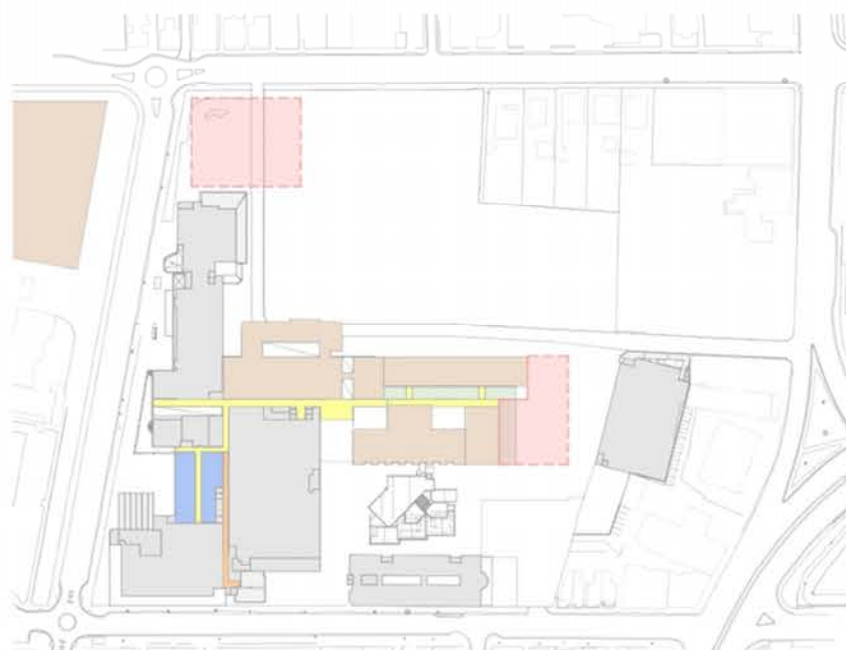


Level 2

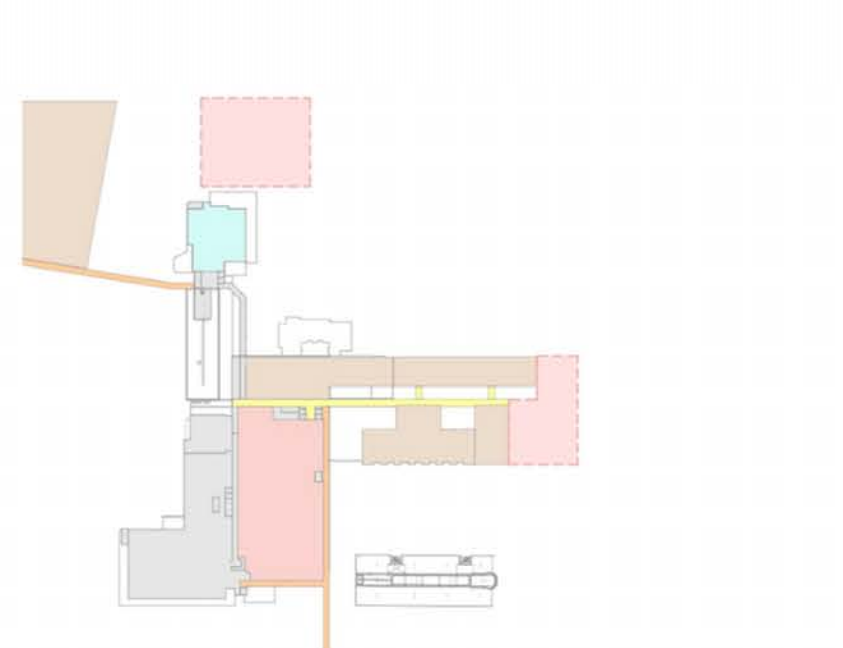


Level 3

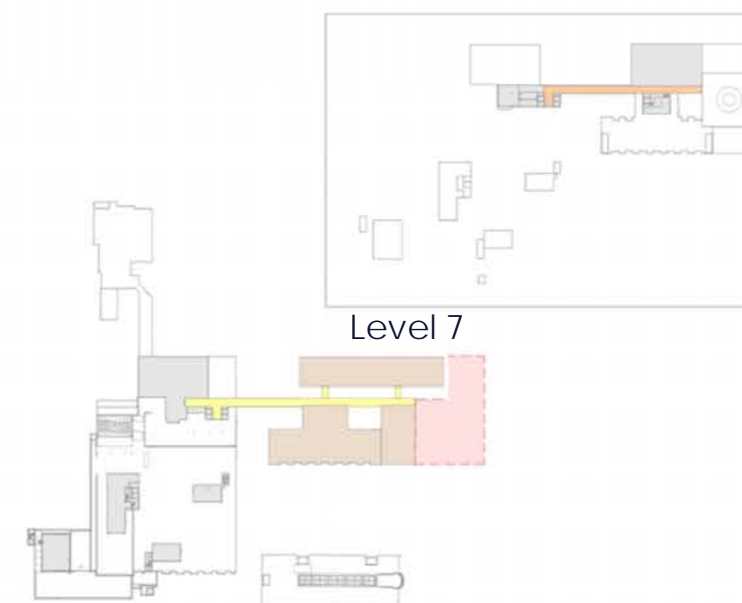
New Primary Health
hub



Level 4



Level 5



Level 6

Level 7

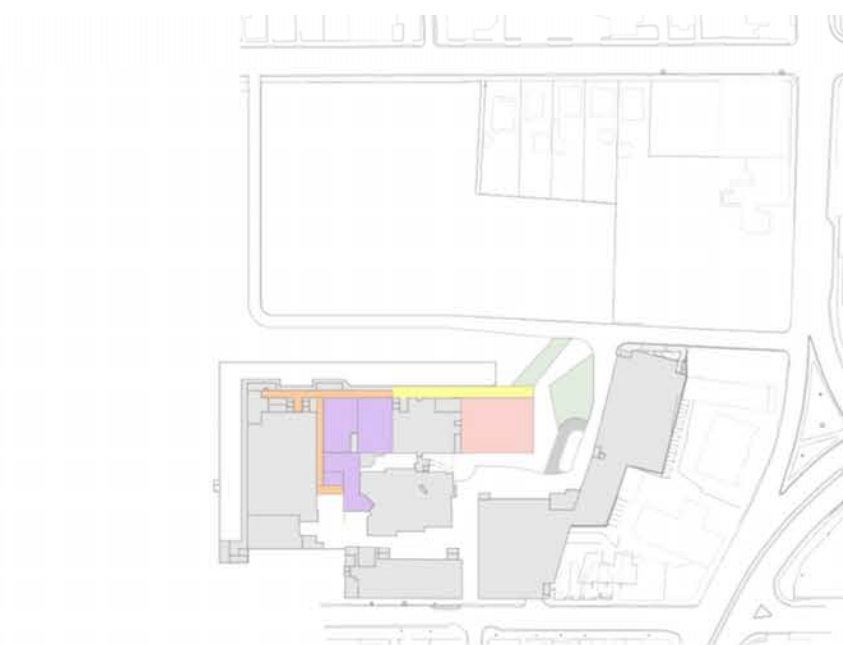
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| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

A new Primary Health hub would be established on level 3 of the hospital in the new outpatient wing currently occupied by the R block.

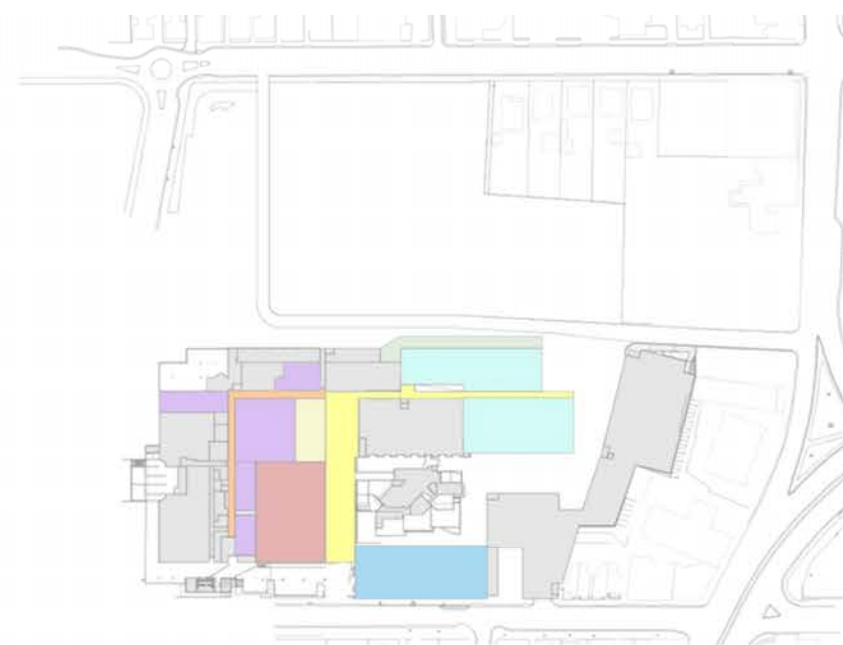
The hub is located conveniently at the new main entry of the hospital and is connected directly to the hospital carpark via the new linkbridge facilitating convenient access for patients and visitors.

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

New Primary Health Hub



Level 1

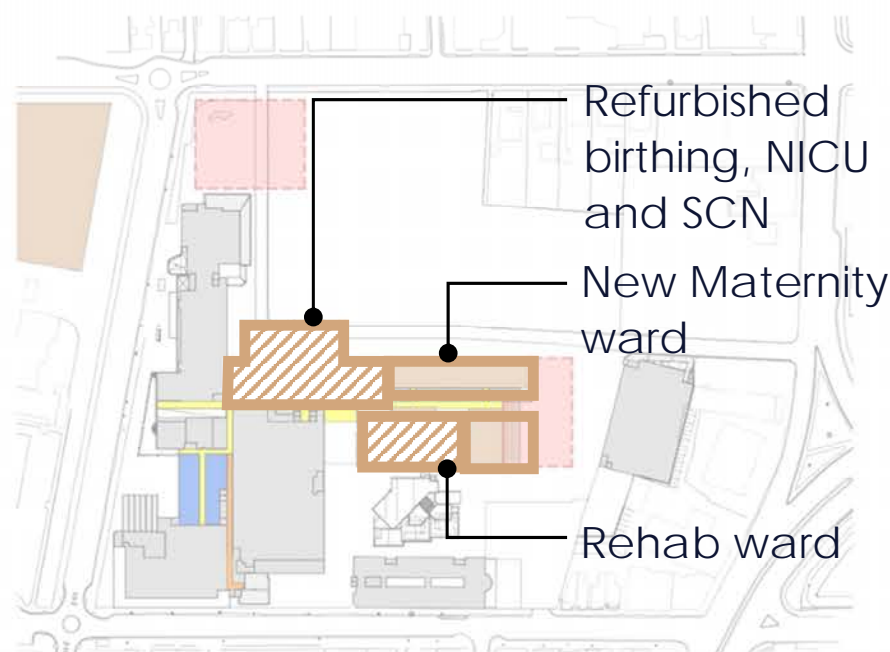


Level 2



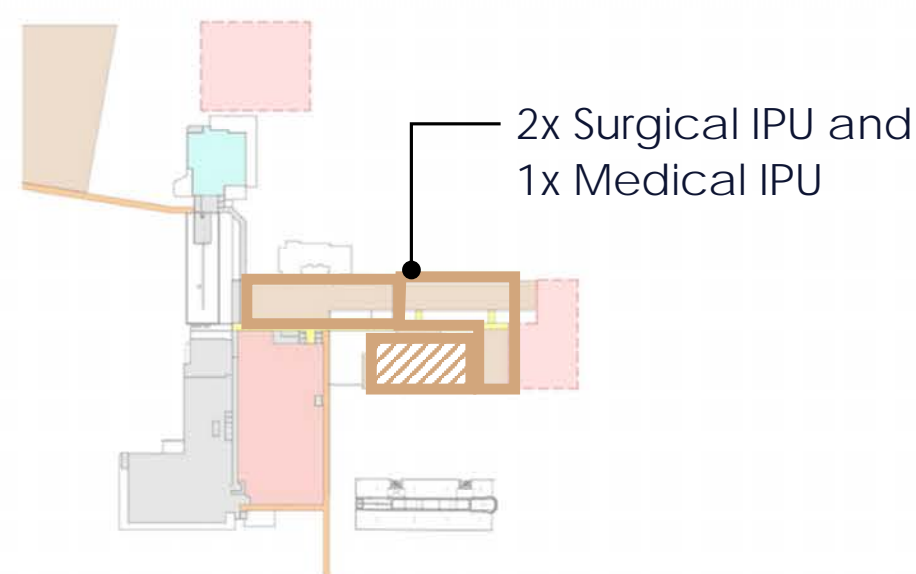
Level 3

New IPU for medical patients with complex behaviours



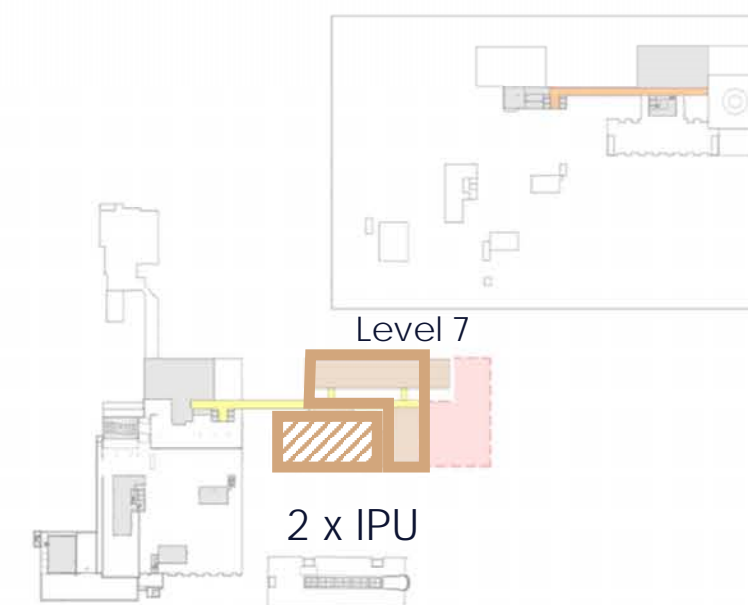
Level 4

- Inpatient
- Outpatient
- Clinical
- Clinical Support
- Offices
- Support
- Research/ Education
- Visitors circulation
- Services circulation
- Future expansion zone



Level 5

- New build
- Refurbished existing



Level 6

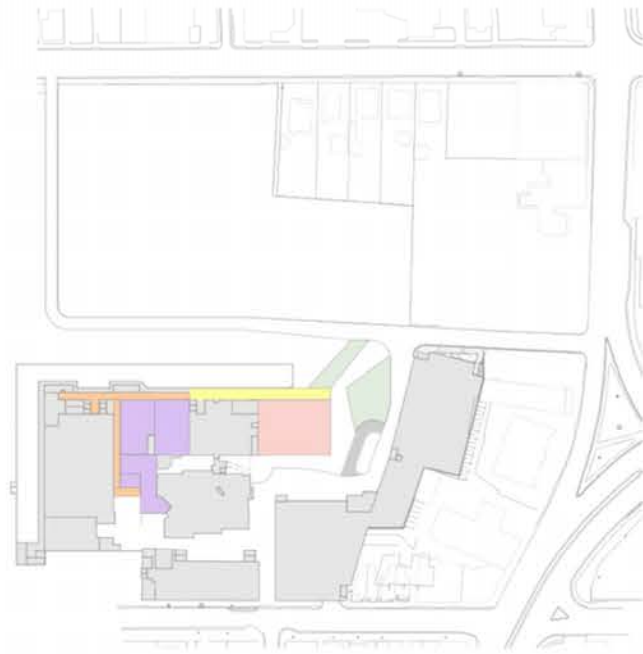
Level 7

2 x IPU

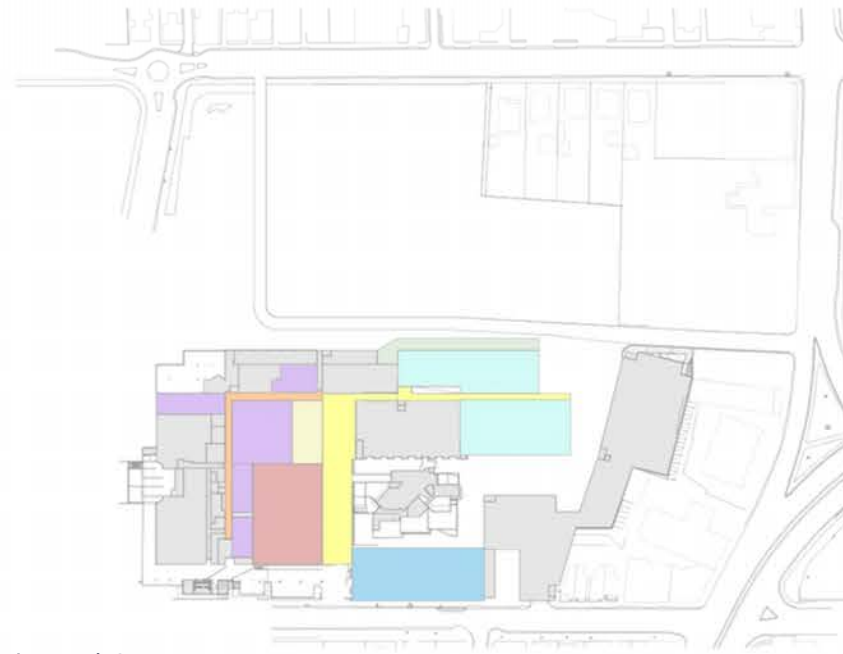
New Inpatient unit tower

The master plan would establish a new inpatient unit precinct in the form of a tower. This tower would consist of the existing inpatient unit tower Block D which would be refurbished and expanded to reduce the number of shared beds without reducing the number of beds in the ward. The tower would also be expanded southward towards the Ockerby Gardens to enable a second inpatient unit ward on each floor of the tower.

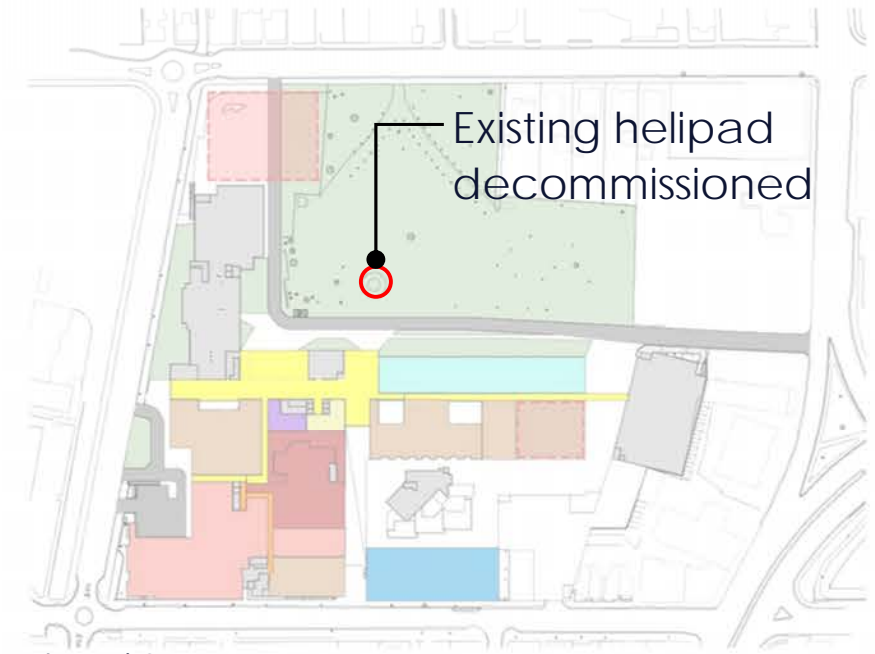
The rehab ward would be located directly above the new inpatient ward for medical patients with complex behaviours on level 3 and allied health on level 2. The three floors would be interconnected via a set of travel stair to facilitate staff travels between the three departments.



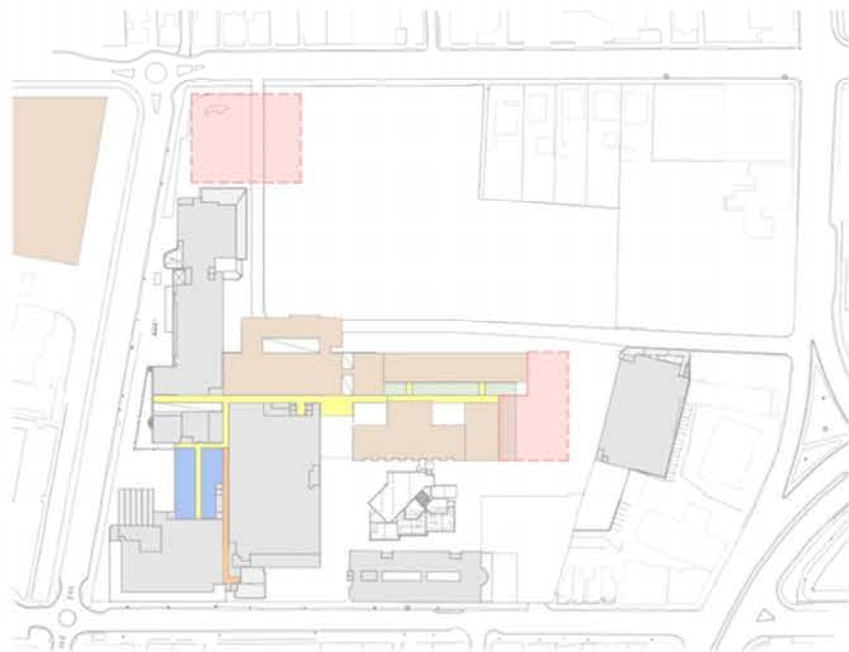
Level 1



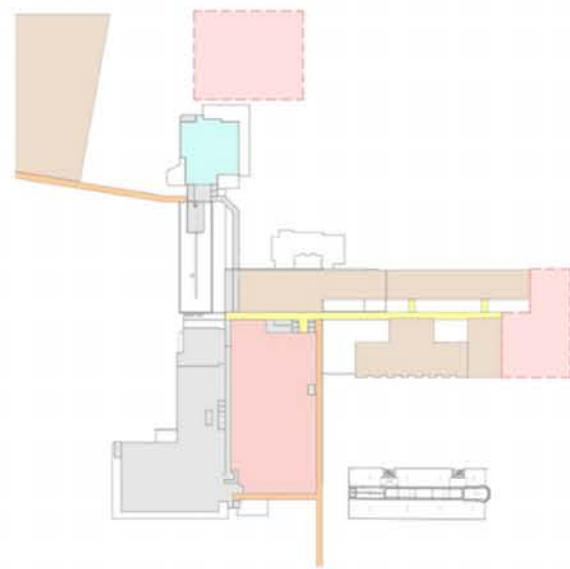
Level 2



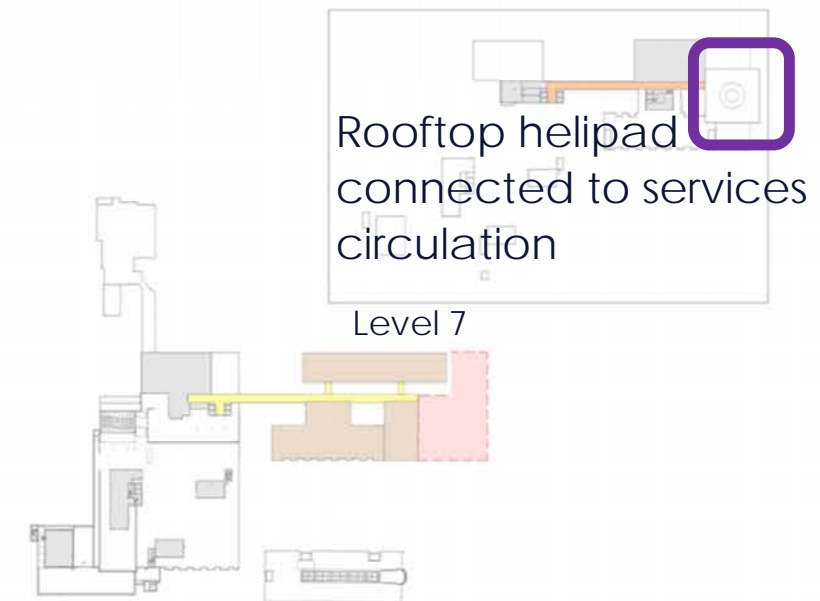
Level 3



Level 4



Level 5



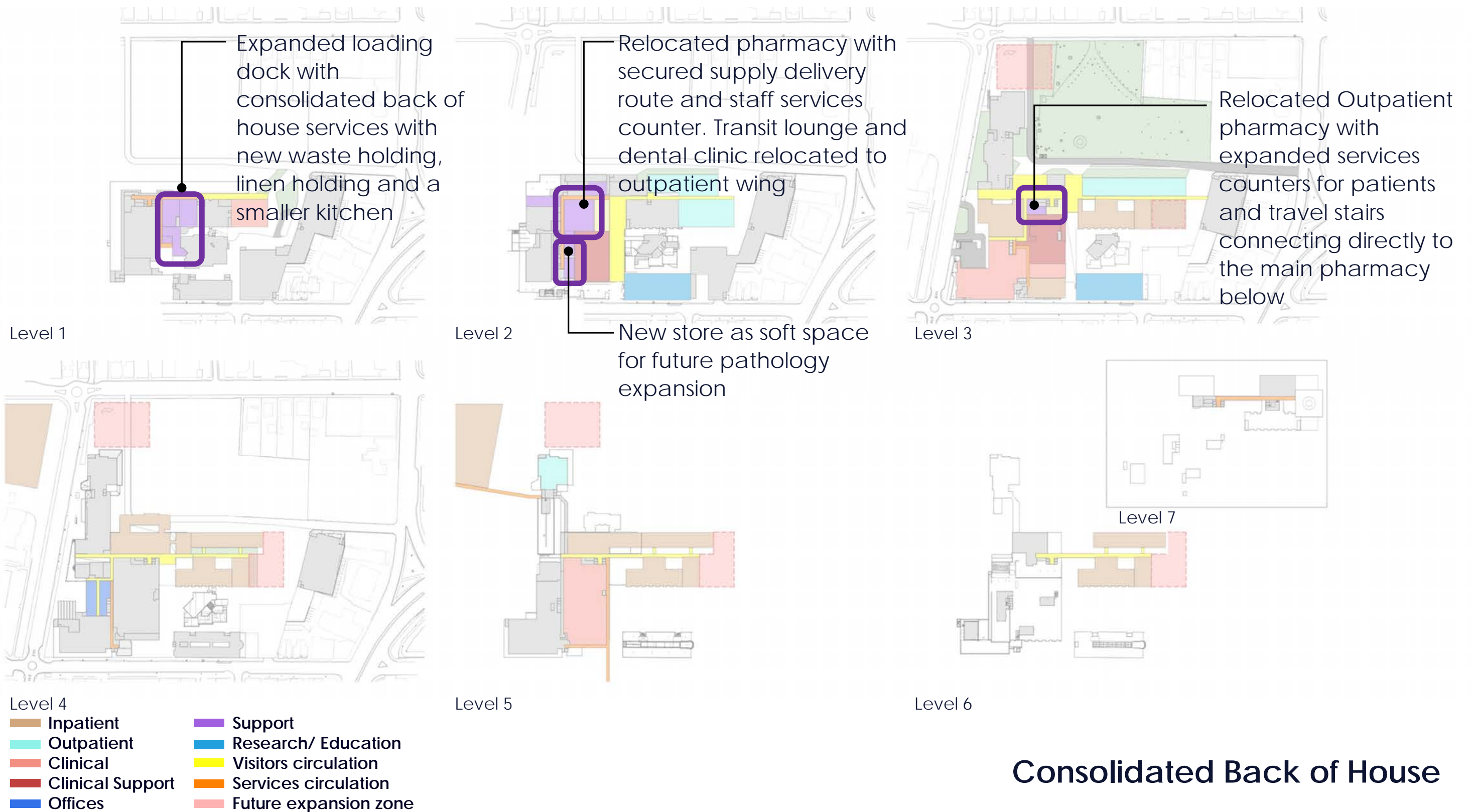
Level 6

Level 7

- | | |
|---|--|
| ■ Inpatient | ■ Support |
| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

The new inpatient unit tower would allow for a new helipad which would be linked and connected directly into the hospital circulation system allowing discreet patient transportation to and from the helicopter.

New Helipad



Consolidated Back of House

The existing kitchen will be relocated offsite leaving a smaller kitchen on level 1 to service the café and as a backup.

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
- both soil and clean linen holding facilities

The loading dock would have sufficient spaces for truck manoeuvring spaces to enable forward in and forward out motion for large trucks. Traffic control signal and devices would be required to manage the bottleneck along the existing bunkers.

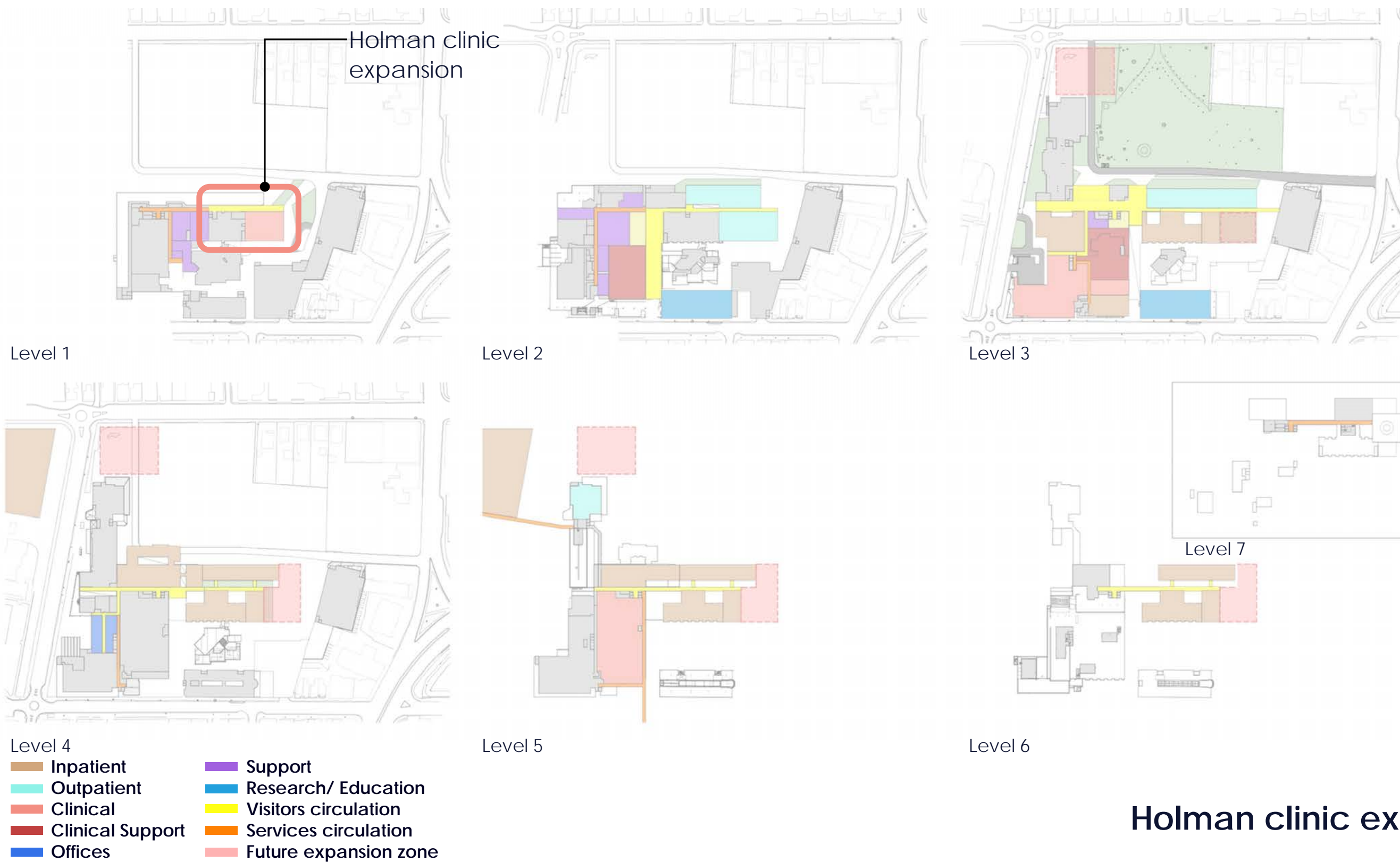
The main hospital pharmacy would be relocated to level 2 and can be supplied from either the level 2 loading dock or from level 1 loading dock pending on the size of the delivery truck and hospital management of the loading dock.

The department would also be accessible via staff restricted corridors improving security to the unit and the delivery and would allow for sufficient expansion spaces in the future for adoption of robotic equipment in the pharmacy workflow if required.

The main pharmacy is connected directly to the outpatient pharmacy on level 3 via a set of travel stairs.

The level 3 outpatient pharmacy counters are located near the hospital main entry in close proximity to the outpatient departments.

Relocation of the offices from level 2 allows for new stores that are also soft spaces for future expansion of the Pathology beyond the master plan is required.

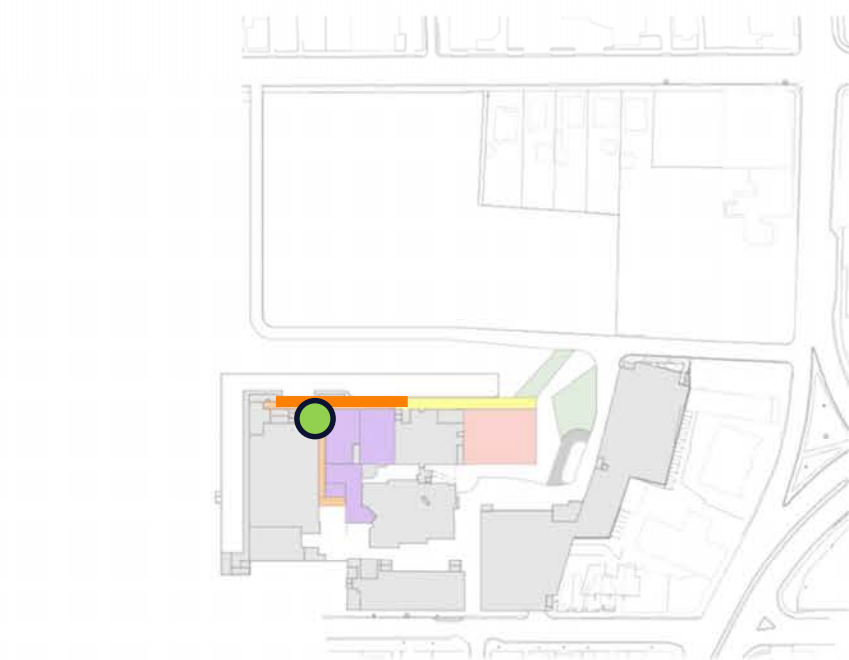


Holman clinic expansion

The Holman clinic would be expanded as part of the new inpatient unit tower expansion and would contain new recliner treatment hall and new consult rooms. A new level 1 dropoff accessed from Cleveland Street allows visitors dropoff to Holman clinic and the new level 1 entry.

The expansion of this unit enables the construction of the new kitchen which allows for the consolidation of the new level 1 back of house area.

The new level 1 which also serves as the hospital entry from pedestrian traffic from Wellington street and is aligned to the hospital internal street on level 2 and level 3 allowing opportunity for stair or escalator connection to the central heart of the hospital on level 3.



Level 1



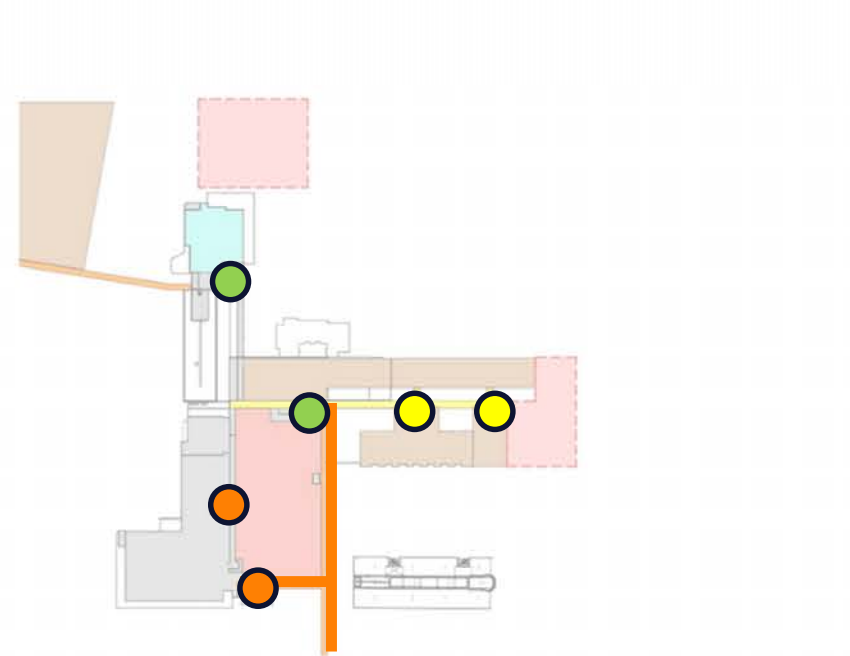
Level 2



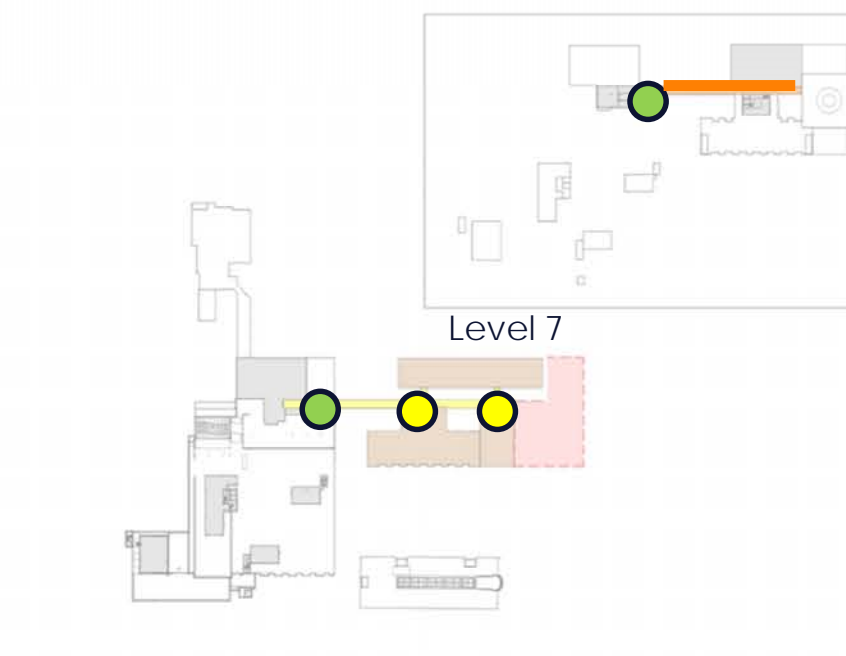
Level 3



Level 4



Level 5



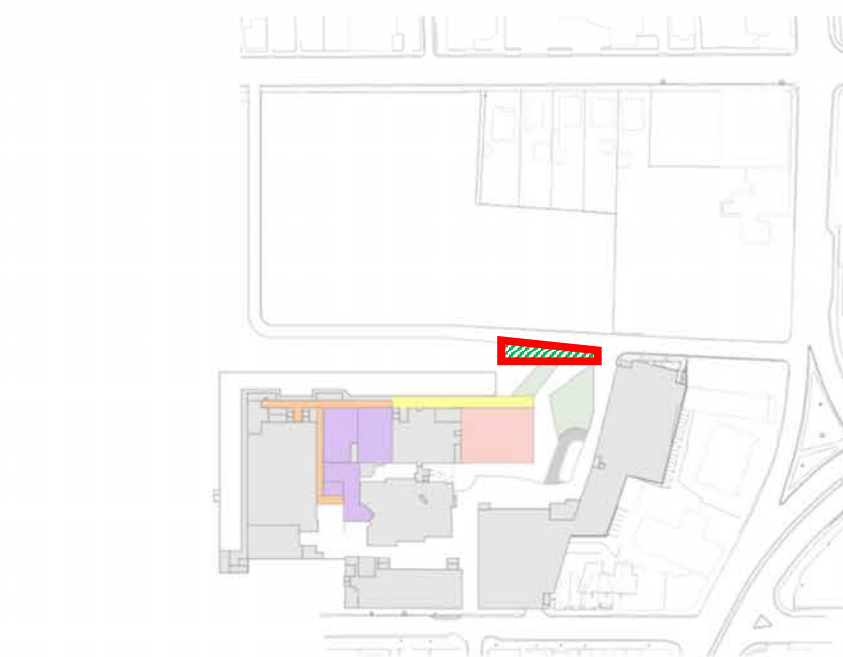
Level 6

- | | |
|---|--|
| ■ Inpatient | ■ Support |
| ■ Outpatient | ■ Research/ Education |
| ■ Clinical | ■ Visitors circulation |
| ■ Clinical Support | ■ Services circulation |
| ■ Offices | ■ Future expansion zone |

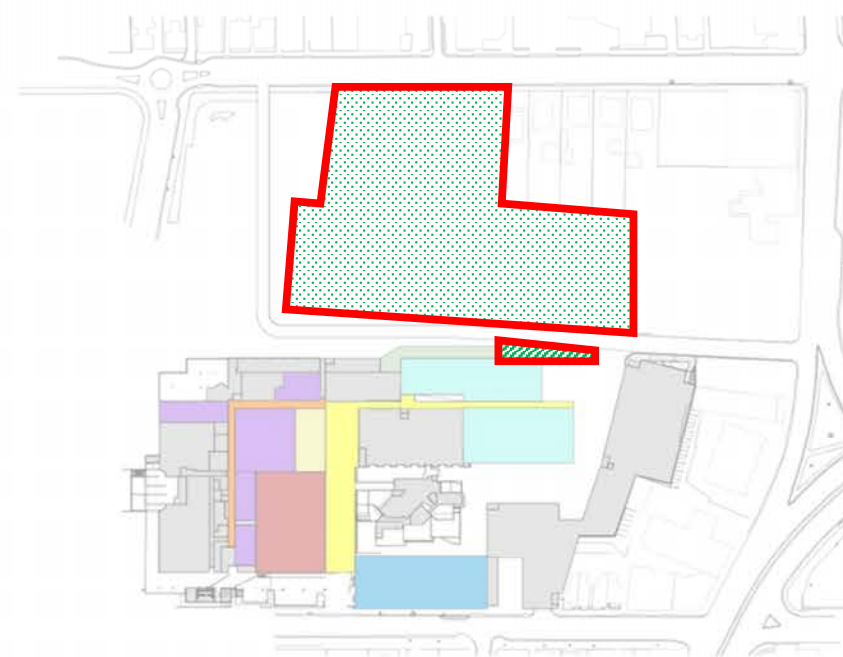
- Services Lift
- Visitor Lift
- Mix Lift

Dedicated services spine

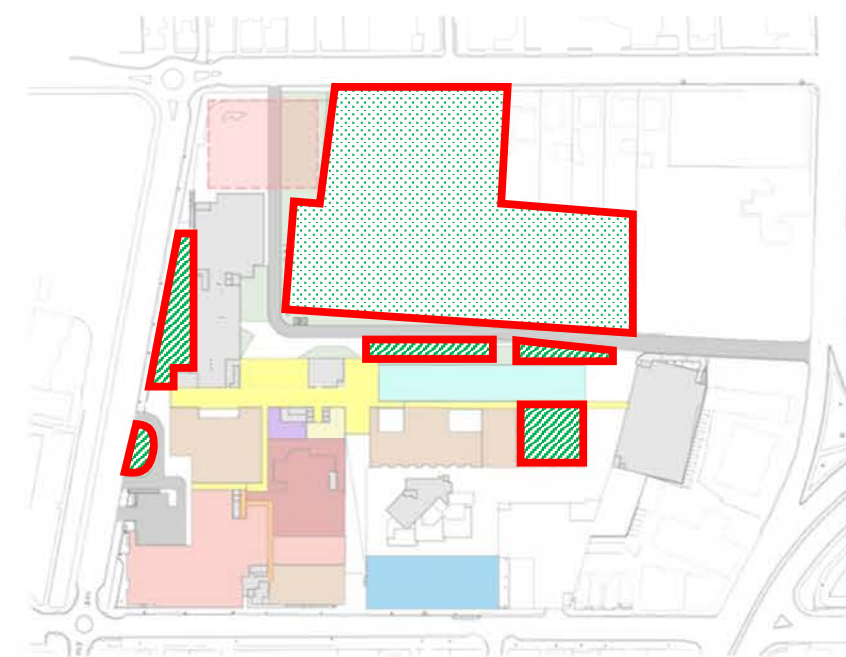
A number of existing corridors were repurposed as restricted staff access only corridors to enable separation of services traffic from visitors traffic. In turn this allowed some of the existing lifts to be repurposed to cater for services traffic only. Services and support from the back of house to core clinical departments such as ED, radiology and theatres can strictly travel in the dedicated services circulation system.



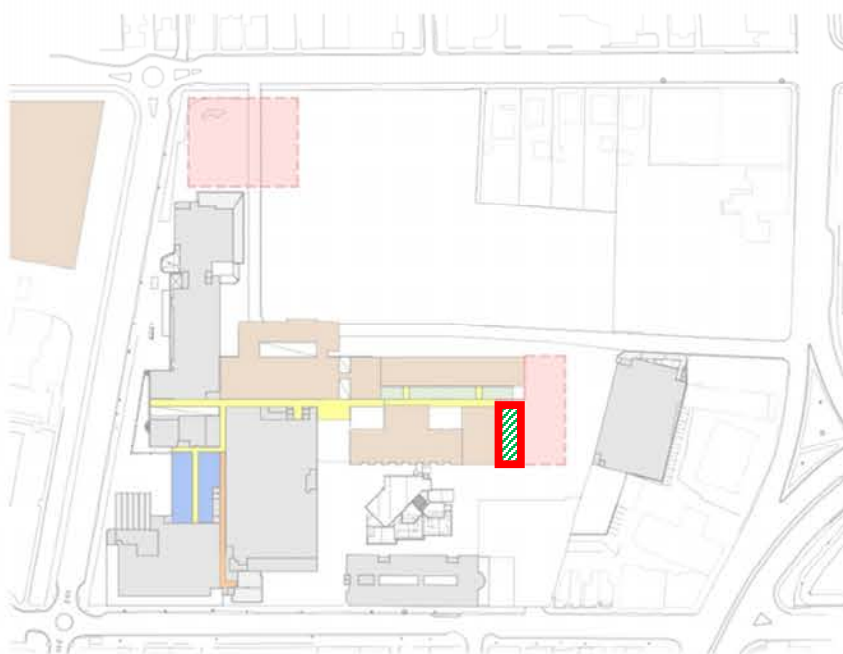
Level 1



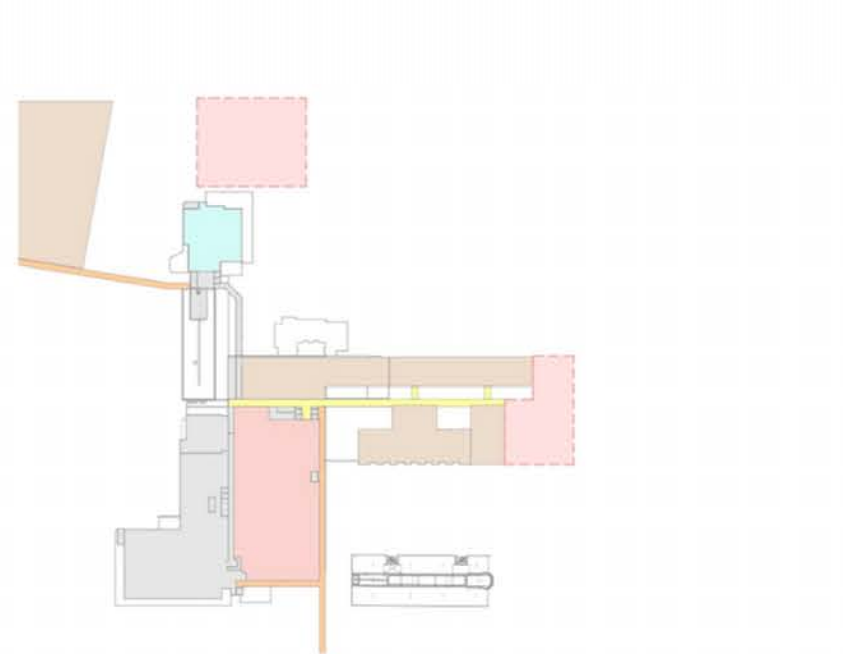
Level 2



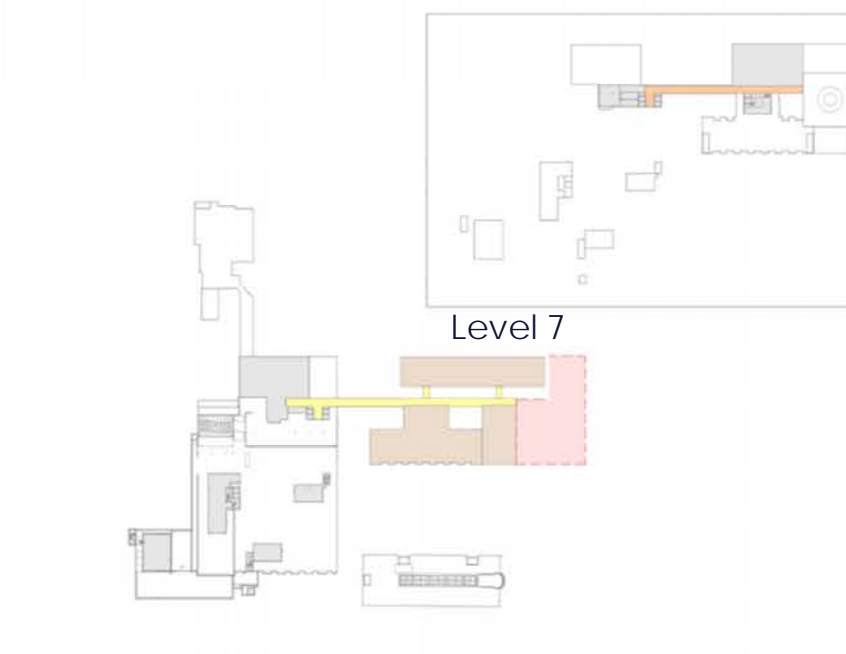
Level 3



Level 4



Level 5



Level 6

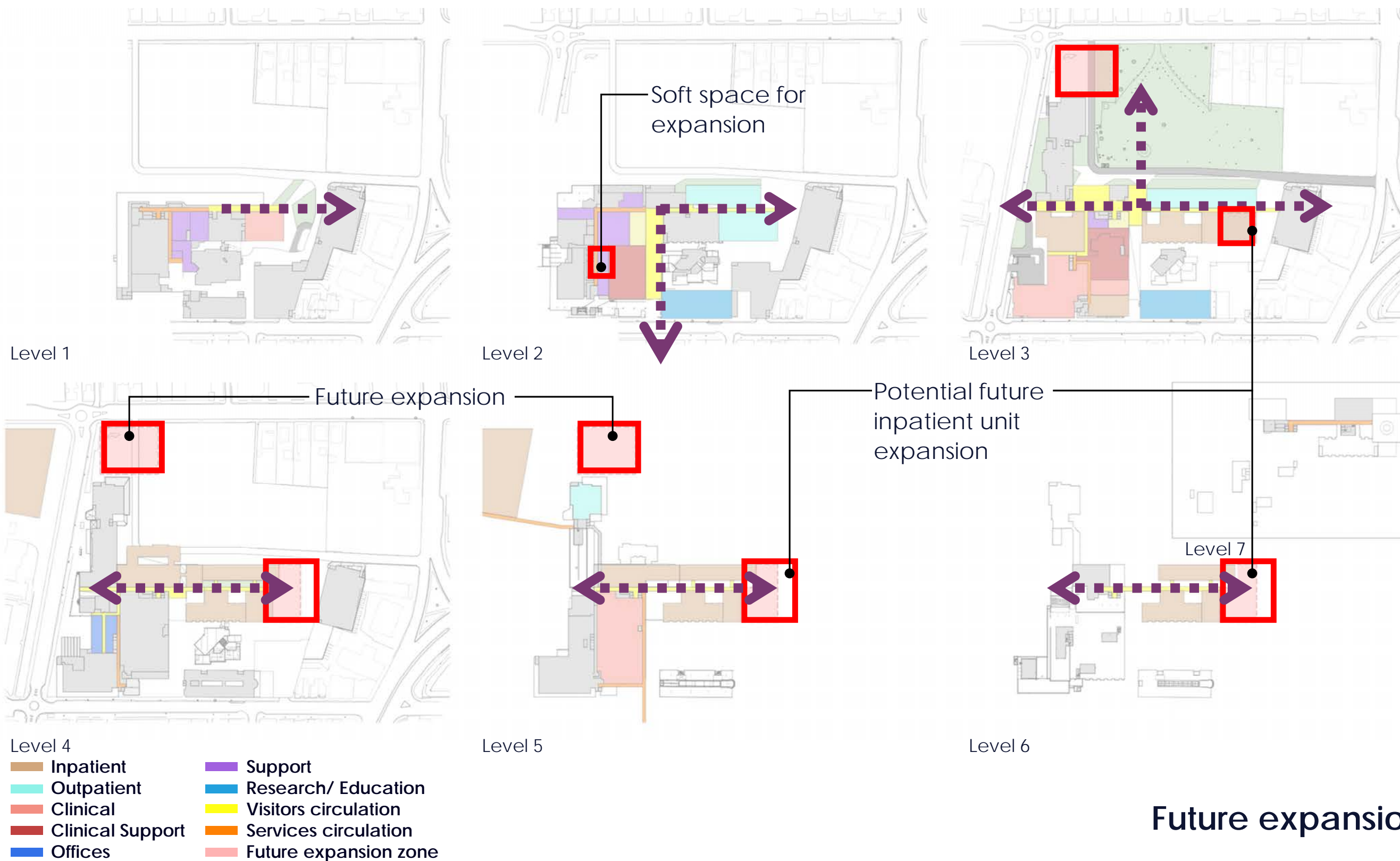
Level 7

- | | |
|--|---|
| Inpatient | Support |
| Outpatient | Research/ Education |
| Clinical | Visitors circulation |
| Clinical Support | Services circulation |
| Offices | Future expansion zone |

- | |
|--|
| Existing landscaping |
| New landscaping |

Integrated Landscaping

The new Cleveland Street entry allows for the opportunity for the hospital to reconnect with Ockerby Gardens. The master plan has also introduced new landscaping at the entry forecourt of the hospital and roof top landscaping that are integrated into the hospital for staff, visitors and patients alike to enjoy without venturing outside the main hospital building.

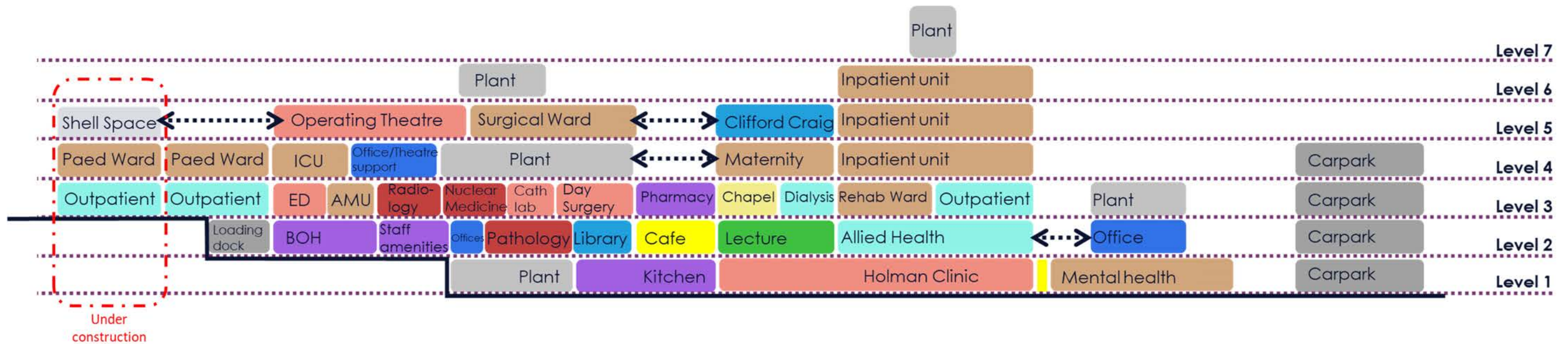


Future expansion zones

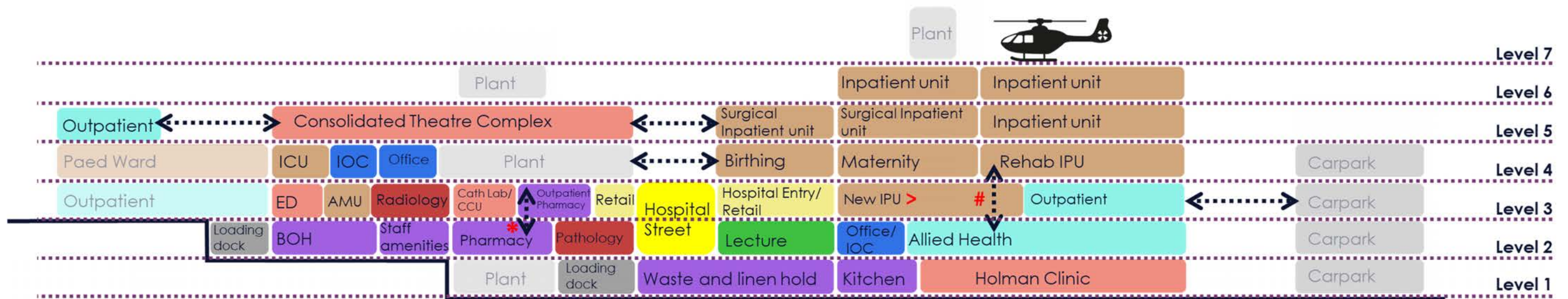
There are available future expansion zone beyond the master plan:

- The inpatient unit tower can be further expanded towards the carpark for new additional ward
- Soft space on level 2 for future expansion of pathology and the pharmacy beyond the master plan.
- The existing Howick Street carpark can also be developed into a new multistorey carpark or outpatient services expansion.

- Viewpoint site is also available for expansion of the hospital's core clinical function and inpatient services should the co-location of the private hospital does not proceed. It can be readily connected back to the main hospital block via a link bridge over Frankland Street on level 5 and would have good access to the existing theatres, ICU and ED.



Existing

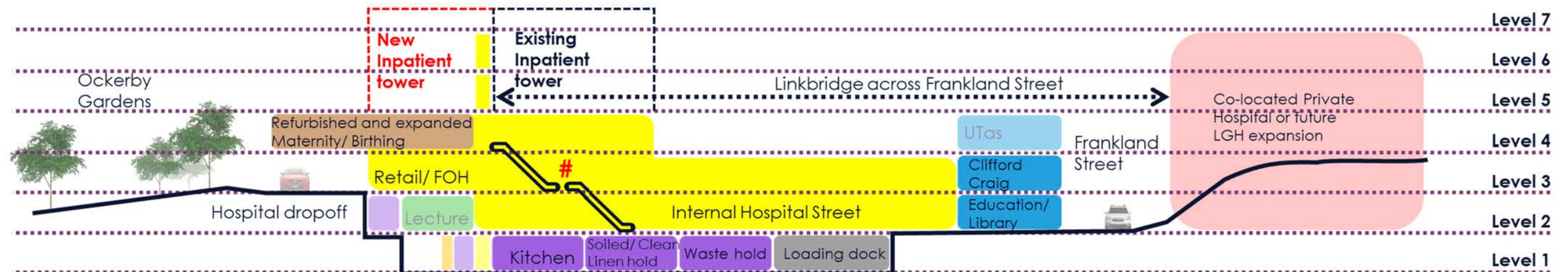


Proposed

- > New IPU for medical patients with complex behaviors.
- # Staff only travel stair connecting rehab inpatient ward on level 4, new inpatient ward on level 3 and allied health on level 2
- * Staff only travel stair connecting outpatient pharmacy on level 3 to pharmacy on level 2



Existing



Proposed

New feature stairs connecting level 4, level 3 and level 2 encouraging healthy lifestyle and improving lift efficiency

Indicative Staging

The master plan can be staged as follows.

Stages	Commencement of Stage	Estimated Length of Stay	Number of new / refreshed physical beds	Proposed Scope of Works
Stage 0	Year 2021	12 Months		-Isolation rooms in existing wards -K-block level 5 fitout to Paediatric Allied Health -Refurbishment at 39 Frankland St for offices in preparation for decanting Anne O'Byrne
Stage 1	Year 2022	24 months	27 beds	-New Integrated Mental Health Services hub -New ED dropoff and ambulance bay rearrangements with Charles St forecourt improvement -New IPU for medical patients with complex behaviours -Temporary relocation of PAC and WAC admin - New CCU. Existing CCU absorbed by AMU - Clifford Craig relocated into NICS
Stage 2	Year 2024	18 months		-Radiology expansion - ED expansion -Temporary relocation of Neurology outpatient -Demolish existing Northside site - New cath lab suite with 2 Cath labs
Stage 3	Year 2025	24 months	99 beds	-New loading dock and back of house consolidation on level 1 -Block D expansion and refurbishment to existing block D IPU -Ward 4D converted to Rehab IPU -Expand allied health and relocate allied health office hub + orthotic to new expansion. -Holman Clinic expansion -New helipad
Stage 5	Year 2027	24 months	90 beds	-Demolish R-block -Expansion to inpatient unit tower block -New outpatient wing - New Primary Health hub
Stage 6	Year 2029	24 months	90 beds	-New Cleveland St entry -Consolidated operating theatre floor -SCN and NICU refurbishment and expansion -New Birthing and PAC -Last phase of radiology expansion -AMU expansion -Relocate IOC and offices -Library and education relocated into NICS to form a consolidated education zone -Allambi refurbishment for rural cancer patient accommodation

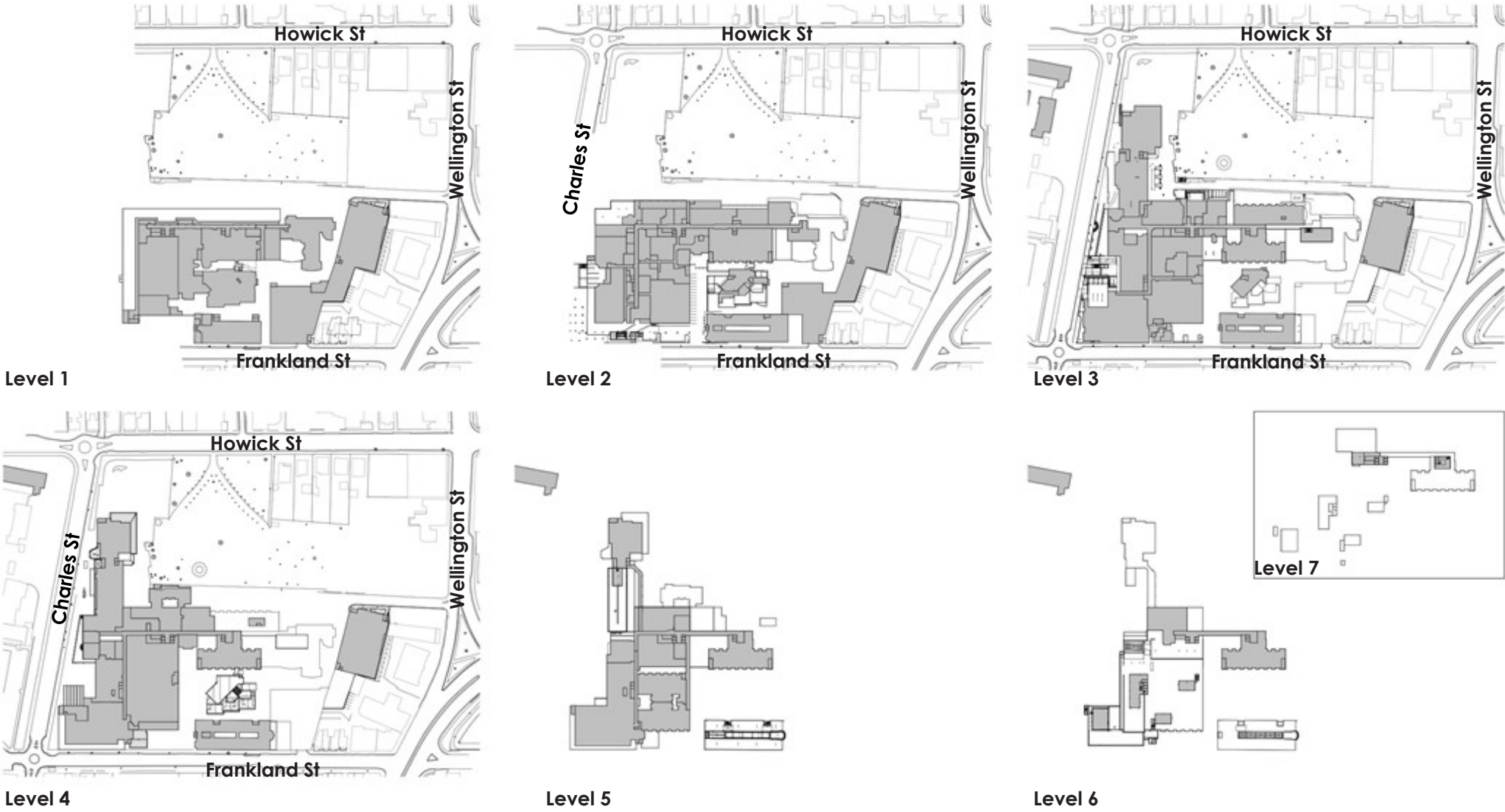
Note the following:

The number of new/refreshed physical beds are based on the number of beds that would be refurbished or created based on a physical arrangement of 30 beds per standard wards. It does not take into account the demand projections from a clinical service plan as it is unavailable at the time of the design nor the potential funding of the beds. Practically the facility may have more capacity than what is required as per the demand projection. The latter of which would advise on the actual number of funded beds per health services and hence departments.

The commencement of stage is based on an assumption that stages would begin one after another with no delay. The precise commencement of stages could be delayed by budgeting cycles or advanced by commencement concurrently with another stage. The latter may not be possible to some stages due to availability and decanting reasons.

The following few pages are indicative of the staging as described in the staging table.

Existing



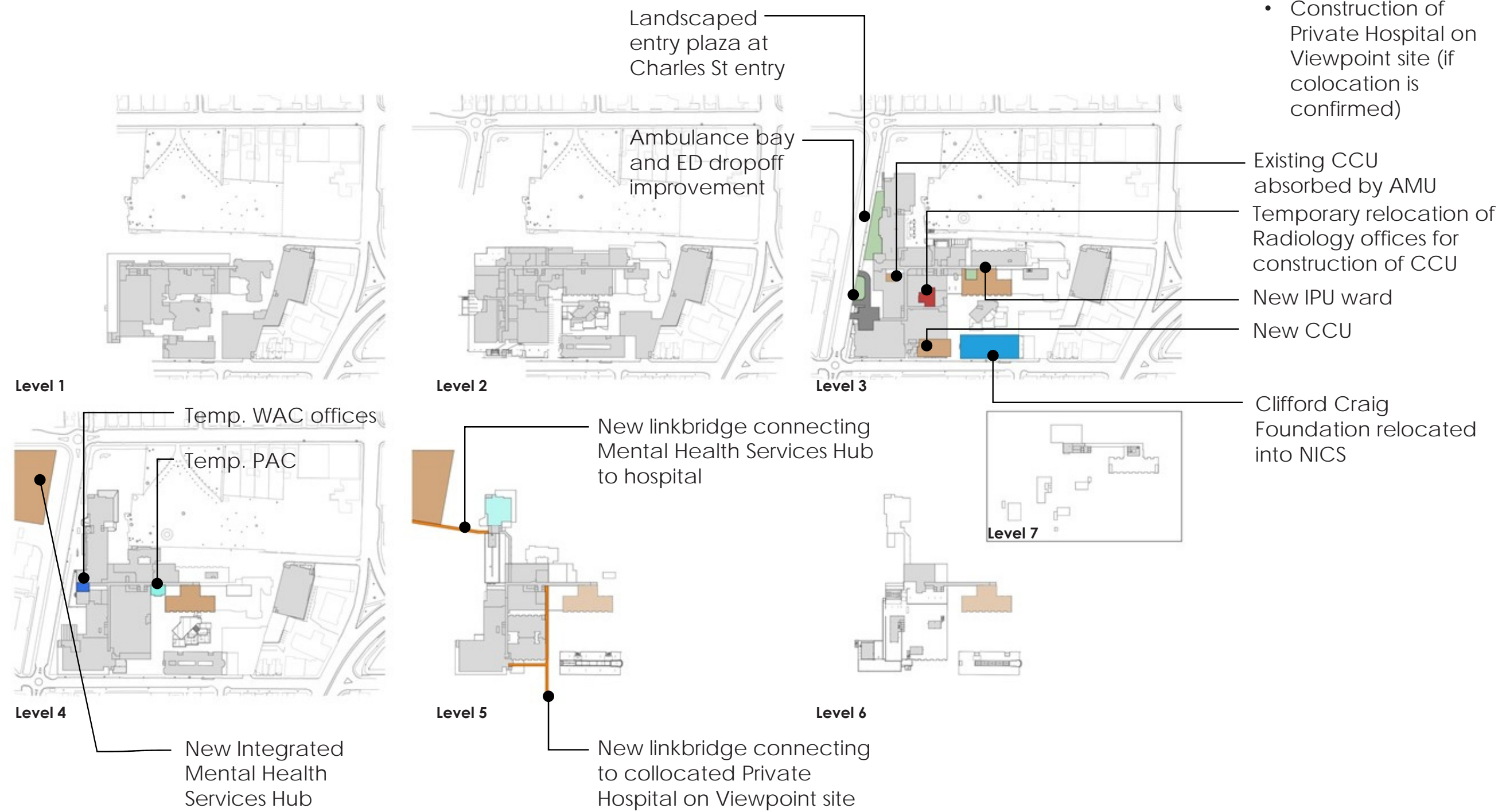
Stage 0



Proposed development outside main campus:

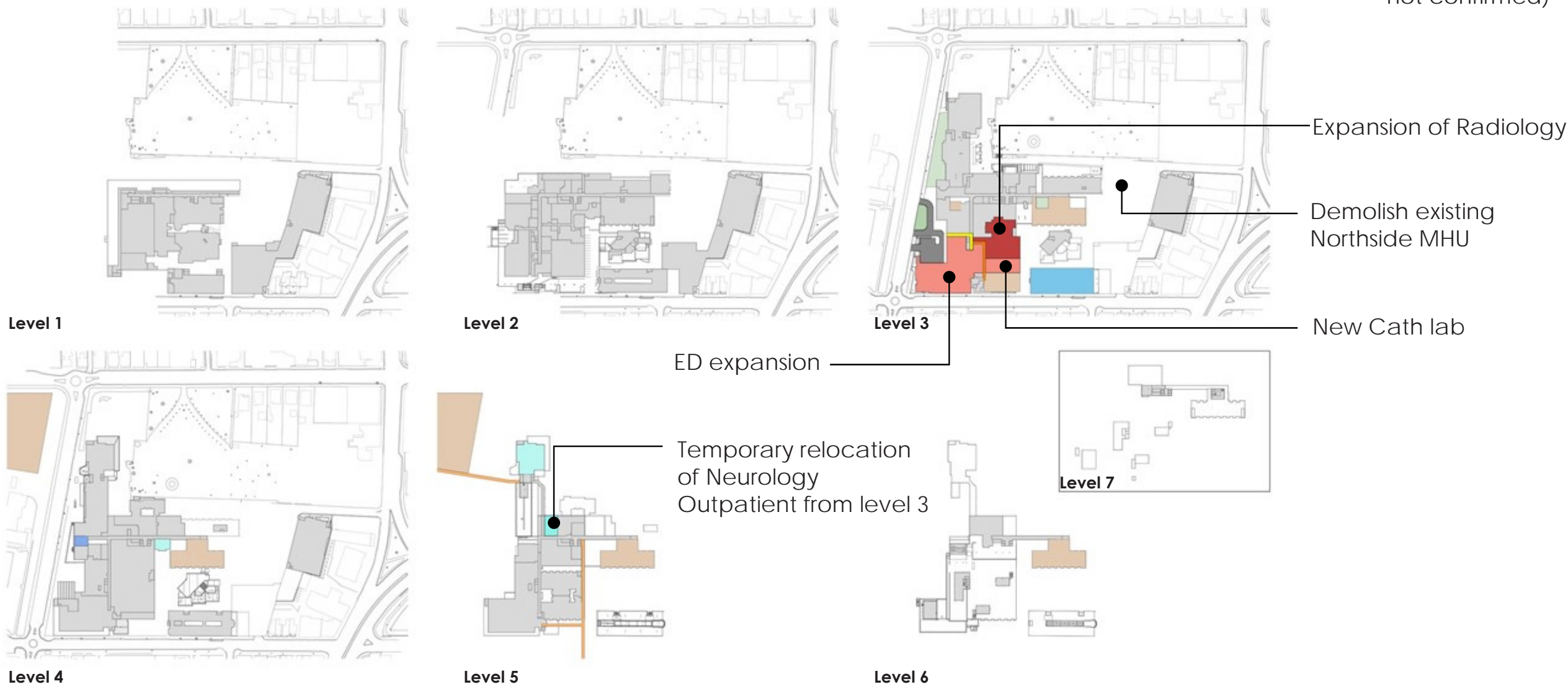
- Vacate and demolish Viewpoint (if private hospital colocation is confirmed)
- 39 Frankland St refurbished as offices for Anne O'Byrne relocation

Stage 1

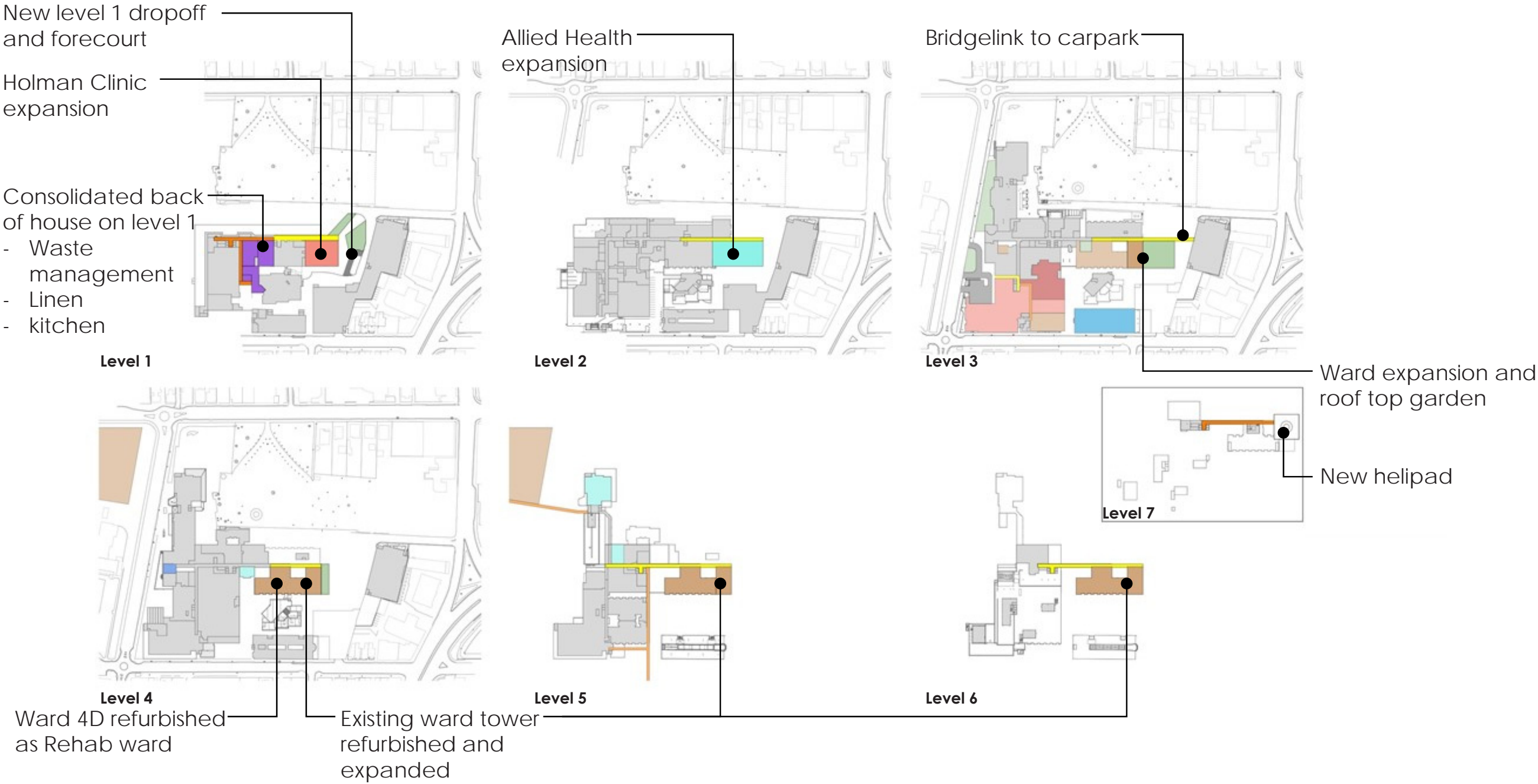


Stage 2

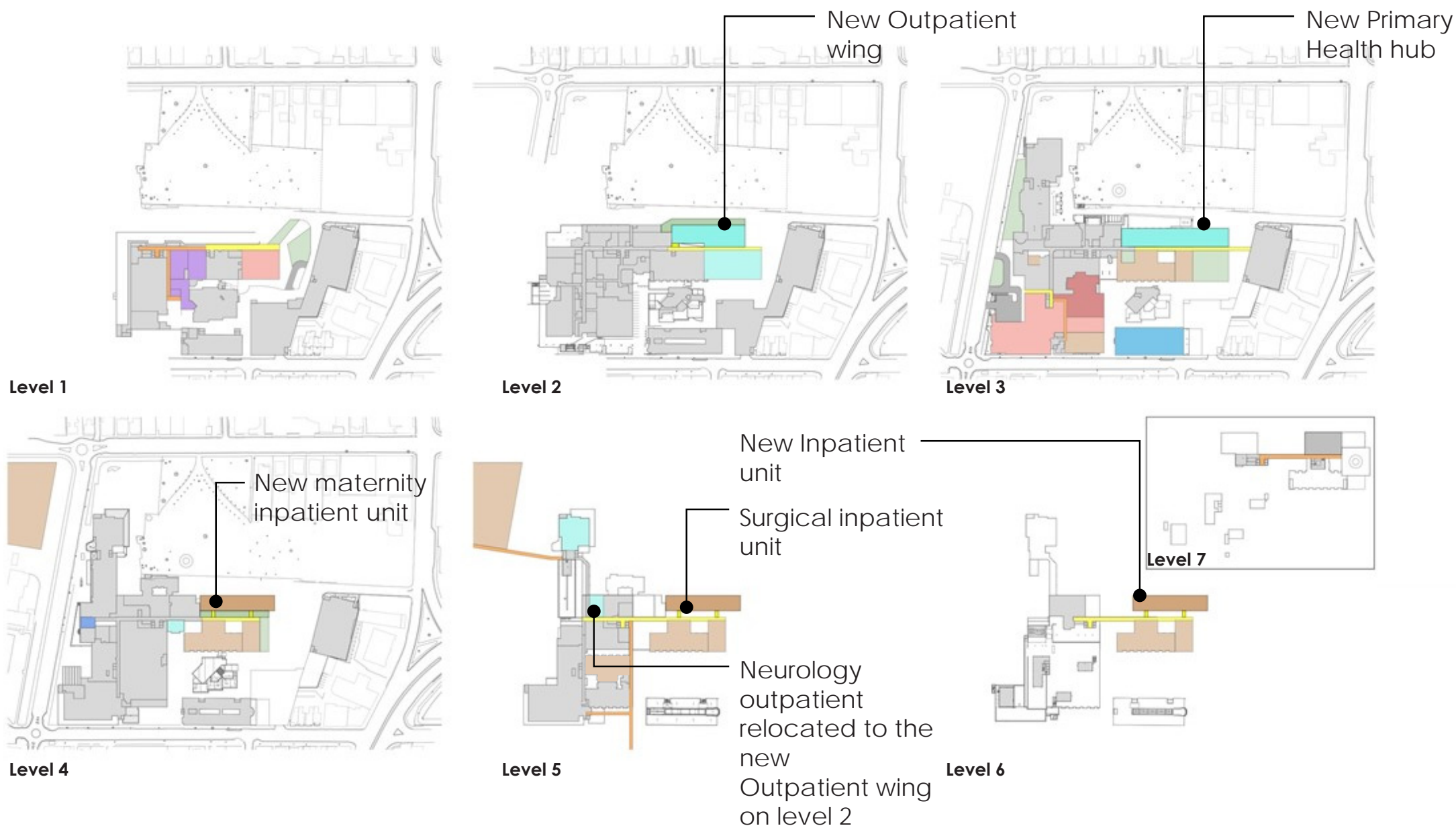
- Proposed development outside main campus:**
- Vacate and demolish Viewpoint (if private hospital colocation is not confirmed)



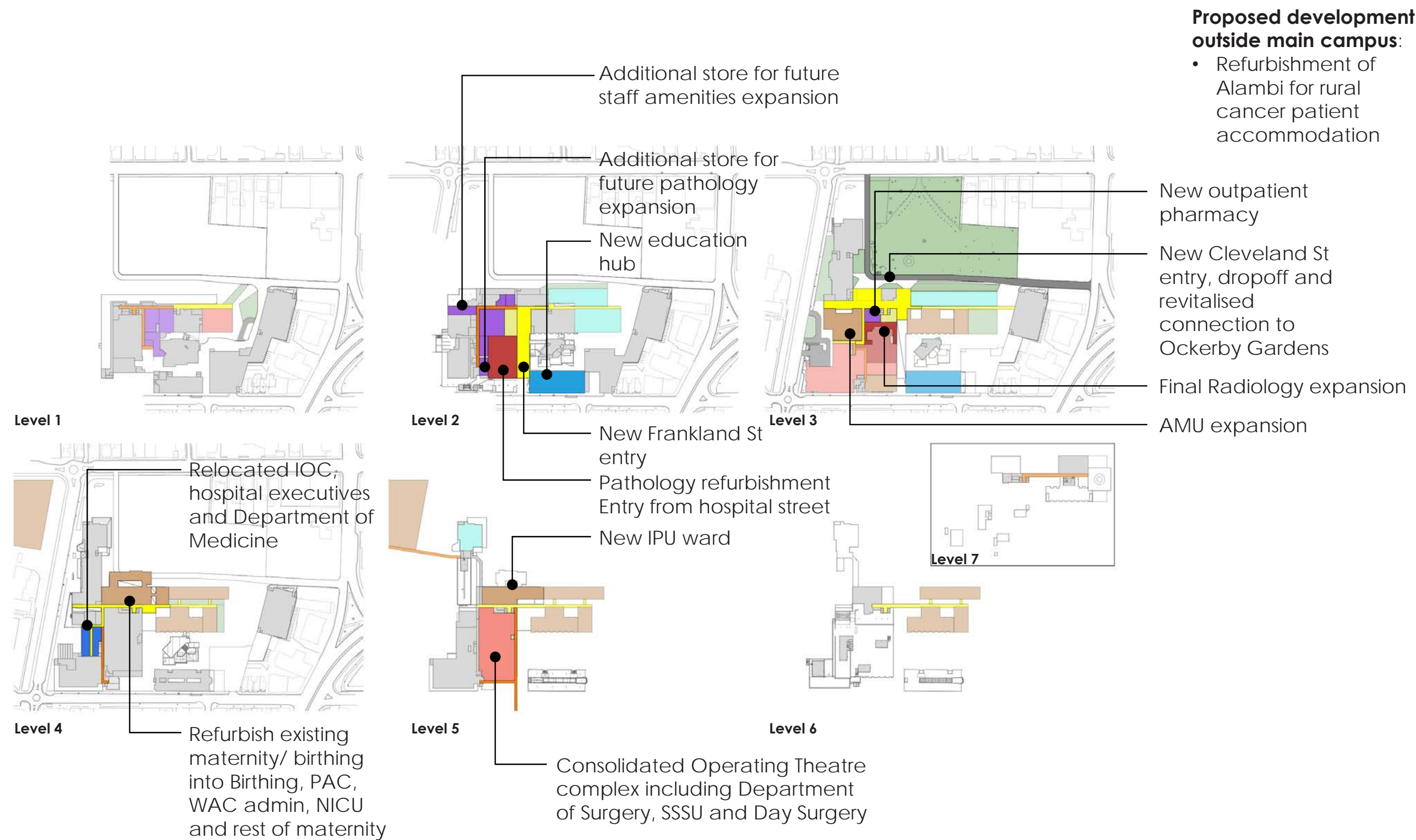
Stage 3



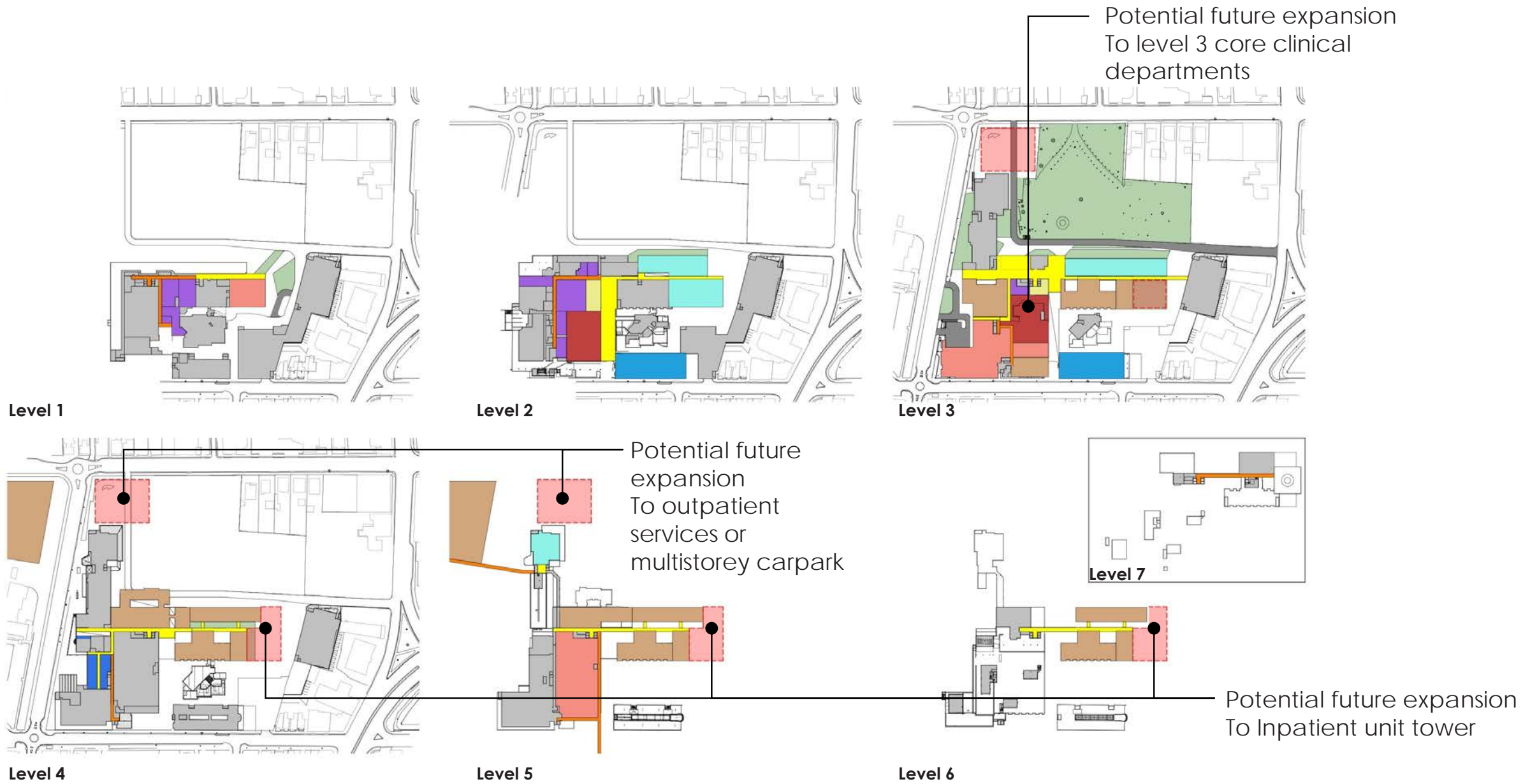
Stage 4



Stage 5



Proposed Master Plan and future expansion



Bedroom Numbers per Stage

This Tables shows the changes in bed numbers and refreshment of beds at each stage of the master plan

Block	Block Reference	Department	Existing	Stage 01	Stage 02	Stage 03	Stage 04	Stage 05
Main Block	A1	AMU	22	28	28	28	28	28
Main Block	A1	CCU	6	10	10	10	10	10
Main Block	A1	Intensive Care Unit	18	18	18	18	18	18
Main Bock	A1	SSSU	22	22	22	22	22	22
Main Block	A1	Ward 5A	32	32	32	32	0	0
Main Block	A1	Ward 5B	32	32	32	32	0	0
Main Block	A1	New Ward 5A						30
D Block	A2	Ward 3D	0	17	17	26	26	26
D Block	A2	Ward 4D	32	32	32	30	30	30
D Block	A2	Ward 5D	32	32	32	30	30	30
D Block	A2	Ward 6D	32	32	32	30	30	30
R Block	A2	Ward 3R	26	26	26	26	0	0
R Block	A2	Ward 4R					30	30
R Block	A2	Ward 5R					30	30
R Block	A2	Ward 6R					30	30
B Block	A6	Maternity	30	30	30	30	30	0
B Block	A6	NICU	10	10	10	10	10	10
K Block	A7	Paed	33	33	33	33	33	33
Total			327	354	354	357	357	357
Number of Refreshed / New Physical Beds				27	0	99	90	90
Cumulative Number of Beds Refreshed / New Physical Beds				27	27	126	216	306
Changes in Number of Beds				27	0	3	0	0
Cumulative Increase of Beds				27	0	30	30	30

Table Legend:

- X = Changes to bed numbers in this stage
- X = Refreshment of beds in this stage (May or may not change the number of beds in this unit)

8. Stage 0 and Stage 1

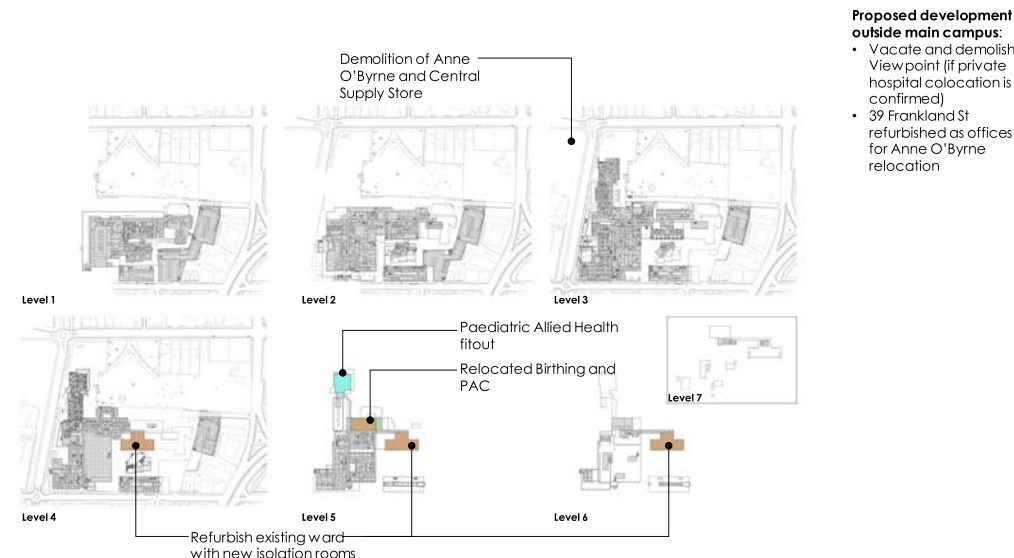
Stage 0 works are redevelopment projects that are either already in preparation of taking place or are planned to take place soon in the year 2021.

They are:

- Isolation rooms in existing wards
- K-block level 5 fitout to Paediatric Allied Health
- refurbishment at 39 Frankland St for offices in preparation of decanting Anne O'Byrne

Isolation rooms in existing wards

Stage 0

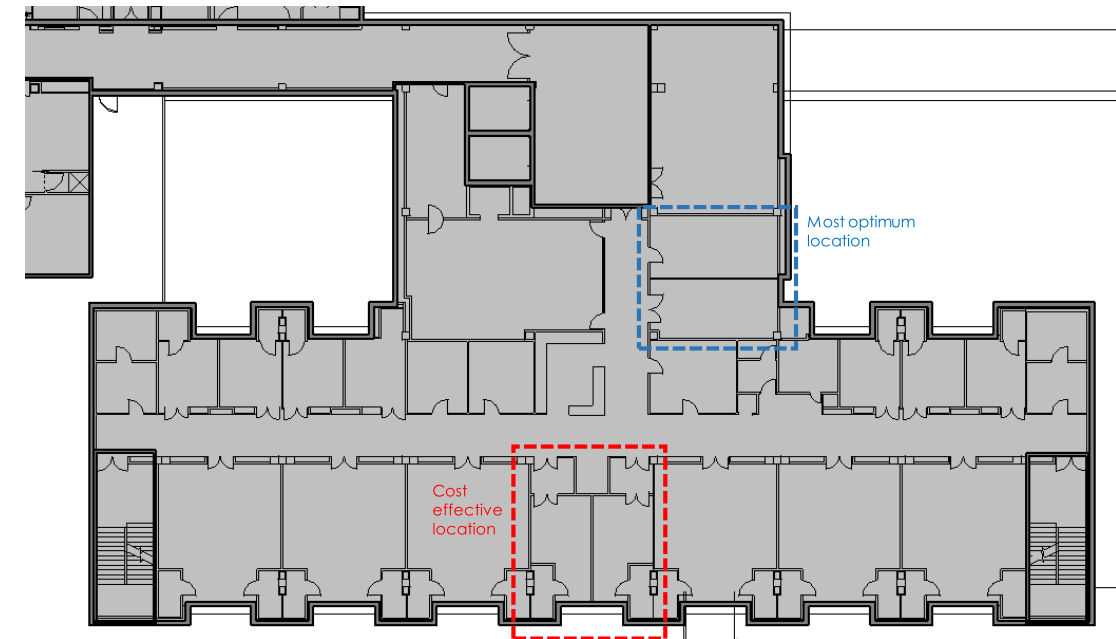


The recent COVID-19 event has shown the need for dedicated isolation room in the general wards of the hospital.

It is noted that there are already isolation room on each floor of Block D however they were only general isolation room without negative pressurisation and at times they were utilised instead for palliative functions.

The most cost effective option would be to upgrade the mechanical services to those rooms to provide negative pressurisation. The upgrade would also require the replacement of the doors to ensure the pressurisation is maintained, refurbishment of the anteroom to provide the necessary sanitary fixtures and shelving for PPE, and installation or upgrade of life support monitoring systems that would be connected to the staff station.

The most optimum solution however would be to convert the spaces near the entrance of the unit for the pressurised isolation room as highlighted in blue. The proposed location allows the transportation of the patient easily without traversing through the centre of the unit. The support spaces that were displaced can be relocated into the spaces currently occupied by the other bedrooms in the same ward.



K-block level 5 fitout to Paediatric Allied Health

The K-block expansion, currently under construction at the time of writing, contains the following:

- outpatient services expansion on level 3
- paediatric inpatient unit including a 6 bed paediatric mental health unit on level 4
- shell space yet to be allocated on level 5

The master plan proposes for the level 5 shell space to be utilised as paediatric allied health. This allows a permanent home for the service which is currently located in a temporary location on level 4 above the Charles St entry and is insufficiently sized for the department.

The relocation will unlock the space to serve as decanting spaces for Department of Surgery allowing the relocation of CCU and cath lab.

Refurbishment at 39 Frankland St for offices in preparation of decanting Anne O'Byrne

Stage 1 works are redevelopment projects that would take place after the completion of Stage 0 projects.

They are:

- New Integrated Mental Health Services hub
- New psychogeriatric ward
- New service driveway down to loading dock
- New Charles St forecourt
- New ED dropoff and ambulance bay rearrangements
- New outpatient expansion

New Integrated Mental Health Services hub

This is the key anchor project for the master plan as its completion allows the demolition of the existing Northside Mental Health Unit and it also unlocks the usage of the Viewpoint site which allows the construction for the collocated private hospital.

New Inpatient Unit on Level 03 for Medical Patients with Complex Behaviours

The new ward will be created on level 3 in Block D in the location previously occupied by the paediatric and antenatal outpatient unit.

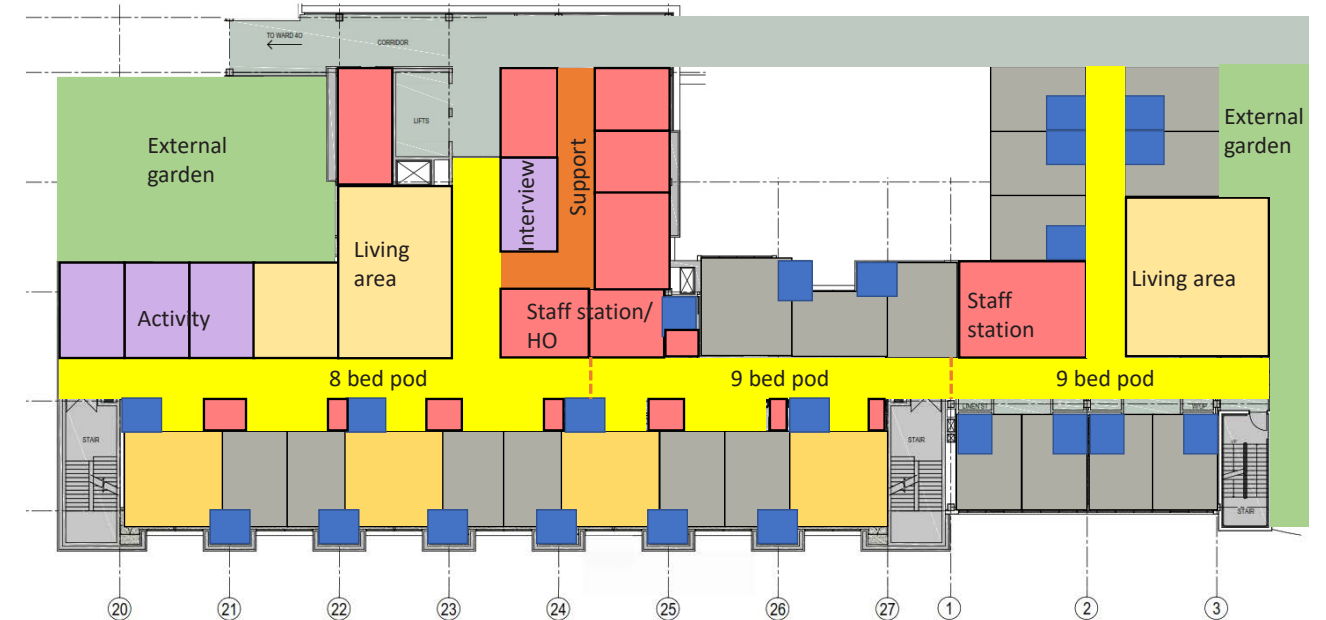
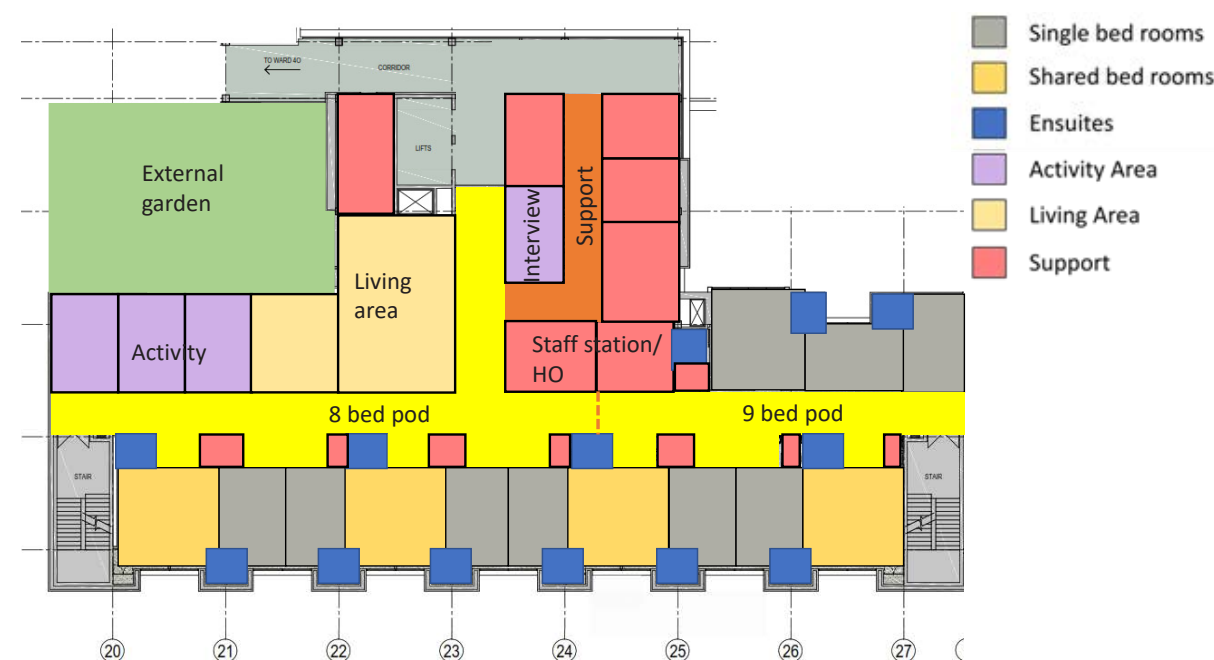
The unit will be designed to cater for patients with mental health co-morbidities and would be centred on providing multidisciplinary services including Rehab and Geriatric Evaluation Management (GEM) services.

The ward should be designed in pods that are easily secured with good access to a dedicated outdoor area that are designed as a looped racetrack allowing patients to wander with points of interest along the way.

There should also be generous number of activity rooms, preferably with external outlook.

Generally shared beds are not recommended however within the existing Block D a maximum number 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 beds room.

The ward can then be expanded to the Northside site for an additional 9 beds pod for a total of 26 beds.

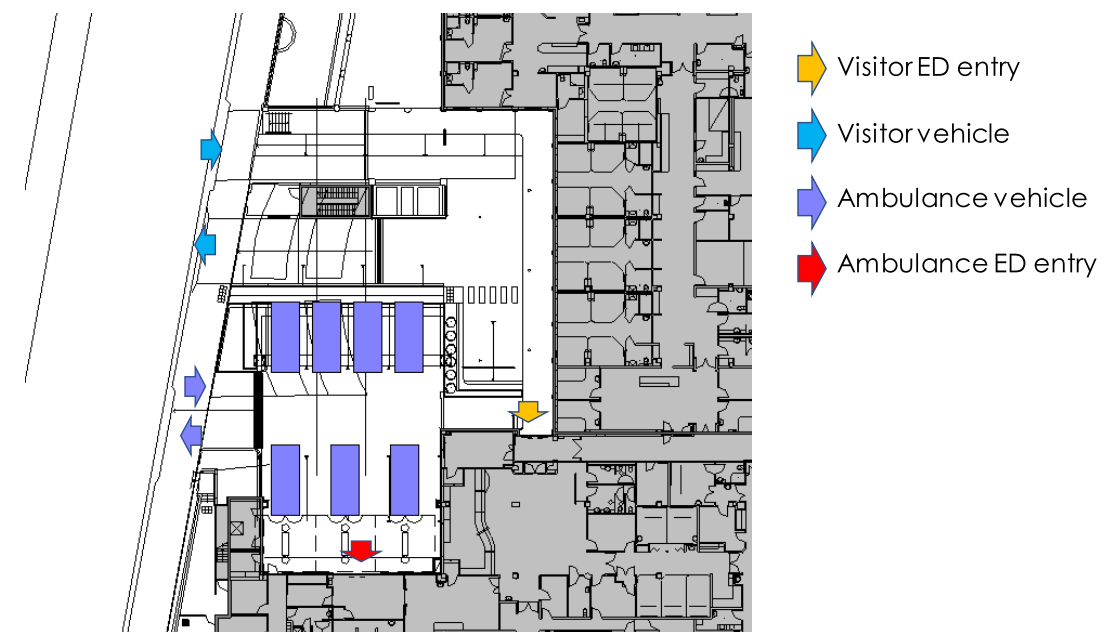


New ED dropoff and ambulance bay rearrangements and new Charles St forecourt

Accessibility to ED is a major design objective in particular to improving the flow of ambulance traffic flow.

There are currently 7 ambulance parking bays and are accessed via a single driveway. Out of the 7 ambulance bays only 3 are for unloading and the other 4 are holding or parking bays. These are reported to be insufficient and will need to have 2 more ambulance bays.

Due to insufficient ambulance triage bays there is a substantial queuing of ambulances and there were also concerns on the lack of visual barrier from the street into the ambulance triage bays.



The master plan proposes a two phase improvement.

The first phase would occur in Stage 1 of the master plan which involves the rearrangement of the ambulance bays and the dropoff driveway.

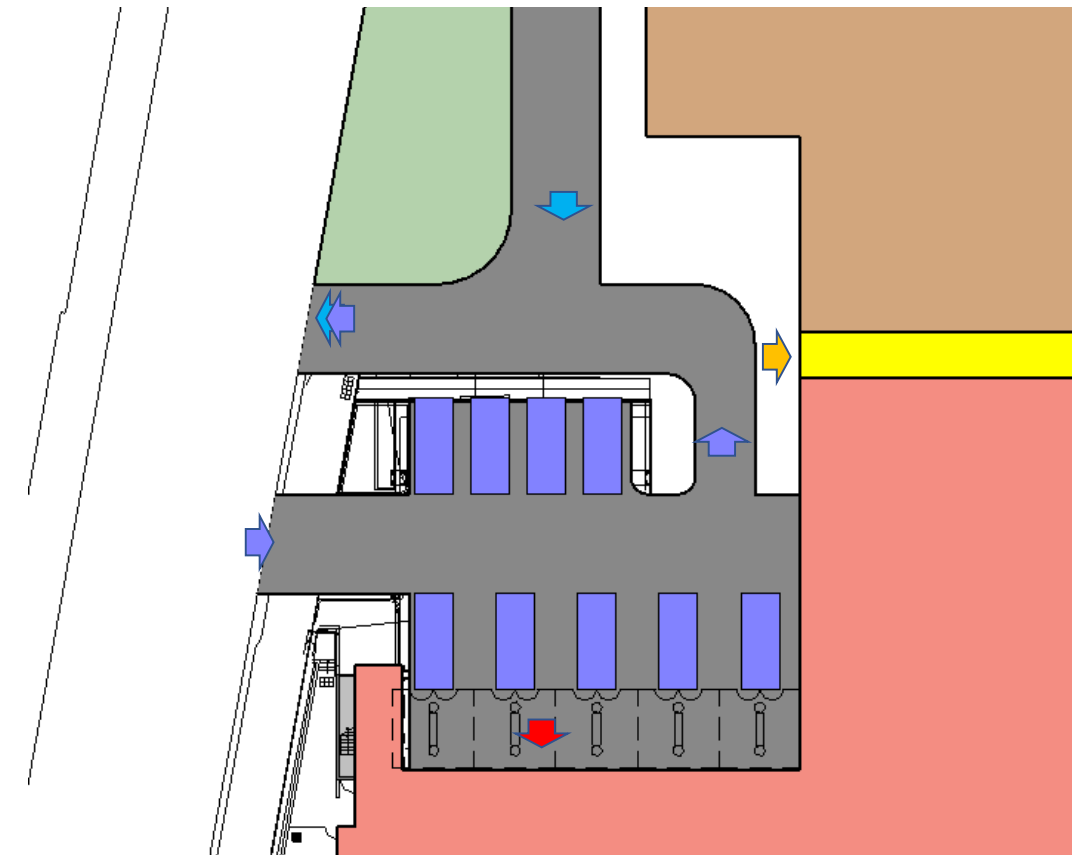
The rearrangement would not require any alteration to the existing emergency department and would achieve the following:

- A unidirectional flow of traffic at the ambulance bay
- Improve on the existing public dropoff to ED
- Increase the number of ambulance bays
- Increases the distance between driveways along Charles Street thereby improving safety and pedestrian amenities.

Following are two potential option that could be explored in the next design phase.



Option 1



Option 2

The second phase would be part of Stage 3 Option 1 where the emergency department would be expanded with a new waiting room with further expansion to the ambulance bay area.

New CCU

New CCU

A new CCU will be constructed over the existing services driveway along Frankland Road in Stage 1.

The new CCU will consist of 10 single bed-rooms and 5 recliners bays in an open hall and will have convenient access from the Cath lab as well as good access to the theatres and ICU above via the adjacent service lift.

In the later stage of the master plan the Radiology department would be expanded and a new Cath lab suite consists of the 2 cath labs would be constructed adjacent to the CCU.

The existing CCU in the AMU will be absorbed by the AMU.

Temporary relocation of PAC and WAC admin

The existing pregnancy assessment clinic (PAC) is located on level 3 in Block D. It needs to be relocated to free up the space for the new IPU for medical patients with complex behaviours it was also separated from the birthing unit which induces inefficiency to staff work flow.

In Stage 1 the existing WAC administration wing would be relocated into the location currently occupied by the paediatric allied health on level 4.

The PAC would be relocated to level 4 in the location vacated by the WAC administration to be collocated with the birthing unit.

These will only be temporary location for these function as they will be relocated once again Stage 5 to be combined with the Birthing and Maternity unit which will in term be connected with the paediatric wing in K block to form a continuous WAC precinct.

Clifford Craig relocation

Clifford Craig will be relocated into the NICS building to free up level 5 space for future hospital expansion. It is also the first step to form a consolidated education zone in the NICS building.

The new location would offer Clifford Craig connection with University of Tasmania as well as a frontage location which will increase its exposure to the public.

9. Recommendations

- Regularly update the Masterplan to incorporate changing priorities.
- Review Masterplan against completed Clinical Services Plan
- Recognise the relocation of Mental Health unlocks the site for expansion both horizontally and vertically.
- Continue to investigate Private Hospital co-location, including possibility of shared services.
- Undertake the fitout of Level 3 & 5 PIU Expansion shell space.
- Roll out of infrastructure upgrades concurrent with new building works.

