NBRS

NSW GOVERNMENT Health Western NSW Local Health District | Health Infrastructure

BLAYNEY MULTIPURPOSE SERVICE REDEVELOPMENT

DESIGN DEVELOPMENT REPORT

AUGUST 2023 | REVISION 02

NBRS & PARTNERS PTY LTD

4 Glen Street, Milsons Point NSW 2061 Australia | +61 2 9922 2344 | nbrsarchitecture.com | Nominated Architect Andrew Duffin NSW reg. 5602 | ABN 16 002 247 565

CONTENTS

APPENDICES

NBRS.

NBRS & PARTNERS PTY LTD

ABN 16 002 247 565

Nom. Architect: Andrew Duffin – NSW 5602

4 Glen Street, Milsons Point NSW 2061 Australia

nbrs.com.au | architects@nbrs.com.au

p. +61 2 9922 2344

Date	Issue	Issued By
16.08.2023	Draft for Review	PR
24.08.2023	Amended Draft	PR

1.0 EXECUTIVE SUMMARY

1.1 PROJECT SCOPE

The Blayney MPS is a small rural health facility located in the Southern Sector of the Western NSW Local Health District (LHD) and it is the first line health provider for the people of the Blayney catchment. It is located in the Blayney Local Government Area (LGA) in central NSW. Blayney Health Service (BHS) operates as a Multi-purpose Service (MPS) and is co-located with a HealthOne providing primary health care services. Blayney Health Service currently has 29 beds with a mixture of high care residential beds, inpatient beds and 4 treatment bays within the ED treatment space.

Major redevelopment of the Blayney MPS is proposed to meet the current and projected demand for services.

Key development considerations for Blayney Health Service include:

- Ageing population and demand for residential high care,
- Providing a range of outpatient care services integrated with the existing HealthOne,
- Providing integrated Emergency, Acute with Ambulatory Care services, and
- Improved connectivity of existing services.

After analysis of the consultation findings, current service models, service mapping, population needs and health service utilization data, the most appropriate service redevelopment would be to have a new facility to expand the inpatient zone, enhance the residential aged care supporting infrastructure (such as communal areas), and expand consultation capacity at HealthOne Blayney. The new service will promote staff and patient safety, improve functional relationships, and enable best practice models of care to be implemented. Generally services are provided at a role delineation level of one or two.

The new facility would incorporate the NSW Health Multipurpose Service Principles of patient/resident-focused care environments with a high level of functional efficiency suitable for regional and rural facilities.

The Blayney MPS will provide:

- **Residential aged care** accommodation providing care to aged care residents with high care needs including clients with
- dementia who have been assessed as suitable for an MPS. Blayney MPS also provides respite care for low and high care residents.
- **Inpatient services** that will provide low level acute care to patients including palliative care in line with the agreed role delineation.
- **Emergency services** including stabilization and management in preparation for admission or transfer of care in line with level 1 role delineation.
- **Imaging services** including general x-ray with a visiting Radiographer onsite from the Cowra Health Service – two days a week.
- **Western NSW LHD community health**, outpatient / ambulatory services and Hospital in the Home (HiTH).

Space requirements associated with the above services including shared activity/ lifestyle areas, quiet room/family room, clinical support, non-clinical support and office space are detailed in the Schedule of Accommodation appended to this report.

Overall, the goal for the project team is to deliver a sustainable long-term health service precinct that can be efficiently delivered in a regional context and staged to support the operational continuity of the hospital.

The masterplan explored four options for the redevelopment of the facility. Option B was the preferred option endorsed by the governance and was taken further through to the Concept Design.

The primary concept that developed during the concept and schematic design phases was around connecting with country. A strong connection to the outdoors was established right from the main entry along all the major public areas. Most of the RAC bedrooms are designed to have doors that open to the courtyard spaces enhancing the outdoor connection among the residents.

During Concept and Schematic design, the staging of the facility was looked at in detail with all stakeholders to ensure the impact on existing services is minimized or managed effectively. The project will be delivered in 3 main stages.

Stage 1 –

Relocation of existing staff carpark and other sheds at the back of house.

Construction of new IPU and RAC wing along with the Courtyard.

Construction of a Temporary link to connect existing and new hospital buildings.

Stage 2 –

Demolition of existing RAC and IPU wing.

Construction of the rest of the new health service building including HealthOne.

Stage 3 –

Demolition of the rest of the existing buildings and temporary link after complete relocation to the new facility.

Completing front-of-house carpark and landscape areas.

2.0 TERMS OF REFERENCE

2.1 PROJECT TEAM

Company	*Discipline*	*Team Members*
The APP Group	Project Management	Nicholas Crossingham Angelina Janevski
NBRS	Architecture & Interior Design	Priyanka Rathod Anselmo Matsui Branka Adamec Dorian Brennan Casie Ng
	Landscape Design	Jon Kane Mengling Fu
Genus Advisory	Cost Management	Nam Nguyen Insook Kim
Jacobs Group	Design Manager	Mihaela Serban
	Civil	Kathy Lau
	Structural	Chris Williams
	Electrical	Mihaela Serban
	Mechanical	Jeff Ryan
	Fire Systems	Jerry Sywak
	Security & Risk	Guy Clifford
	Hydraulic	Alan Booth
	Section J/ JV3	William Limb
Blackett Maguire & Goldsmith	BCA	Michael Potts
Premise	Registered Surveyor	Sam Byrnes
Lehr Consultants International	ESD	Le Han Tan Jason Lei
Acoustic Logic	Acoustic	Alex Washer
Cini LIttle	Kitchen Design	Andrew Frost

Apart from above, there are specialist consultants such as Planners, flood, Ecologist, Arborist, Geotech, Radiation are involved in providing advise to the project team informing the decisions.

Figure 2.1: Table – Project Team

2.2 METHODOLOGY

The Blayney Health Service Masterplan Report has been prepared by NBRS in collaboration with the Project Team and in consultation with Western NSW Local Health District (WNSWLHD) and NSW Health Infrastructure (NSWHI). APP are the Project Managers and Genus Advisory are the cost planners within the project team.

The existing Hospital site was the preferred site from the Master Plan phase. The design for the site and the building was developed based on the preferred location during the Concept Design. The Schematic Design phase developed the layouts further for the building and the site in consultation with the stakeholders.

Design Development finalised the planning and floor layout developed in previous stages and provided room layout sheets to assist stakeholders to visualise the space and make decisions in regards to functionality, safety, security, maintenance, and suitability for the consumer-centred facility.

Based on the consultation process, the design team developed the Design Development proposal outlined in this document. The focus of this phase of design included the finalisation of the plan arrangement and the development of room layouts to satisfy the brief.

The plans were coordinated with all consultants including structure, civil, mechanical, electrical, hydraulic, fire, traffic, ESD, BCA, and acoustic. The coordination resulted in the final Design Development documentation of the architectural, landscape and services design.

2.3 USER ENGAGEMENT

The user group engagement was facilitated by APP and NBRS. Group members included representatives from the Health Service, Local Health District, HealthOne as well as specialists when required such as NSW Ambulance, Pathology, Dental, Imaging. The user group consultation also had consumer representatives. The consultations enable the development of the Room Layout Sheets and detail the Design Development Plan.

The design phase included the following consultations:

- 3 x Project User Group (PUG)
- 3 x ICT Working Group
- 1 x Finishes Review
- 3 x Security Working Group
- 3 x FFE Working Group
- 2 x LHD Maintenance Review
- 3 x Connecting with Country
- 2 x Arts Working Group

The consultations also considered the following:

- Movement & Access,
- Colocation and proximity,
- Travel paths and distances,
- Protecting People and Property issues,
- Alignment with functional brief.

Most consultations and workshops were conducted on existing hospital site as well as online using video-conferencing with maximum opportunities for in-session discussion. All user group questions and comments were minuted and circulated for the next discussion.

2.0 TERMS OF REFERENCE

2.4 COMMUNITY ENGAGEMENT

From the outset of the project, it was identified that Indigenous guidance and local knowledge is integral to the projects design, longevity and future use. Aboriginal Focus Groups were facilitated by NSWHI and the FWLHD. They involved talking to local elders about the project design and actively listening to their needs and concerns. The sessions allowed the opportunity to talk to the various community members for feedback on the design and to understand their needs and priorities.

The following points have been adopted to ensure cultural safety for participants and the design team for the life of the engagement.

- Indigenous-led,
- Community-specific,
- Share knowledge and collaborate,
- Demonstrate respect and honour.

The following consultations were undertaken during the Design Development phase.

- 3 x Connecting with Country
- 2 x Art Working Group
- 1 x Staff Information session

The design and engagement process has resulted in the project team establishing broader connections with the Wiradjuri and the local community. The engagement has received supportive feedback from the Indigenous community. The process and outcomes are consolidated in the Connecting with Country report.

There was very active participation from all the groups and the feedback received was very positive and supportive of the design. The project team has responded to feedback received from all the groups and has made necessary inclusions in the design.

Community Engagement and Walk on Country

3.0 SITE REVIEW

3.1 SITE LOCATION

The site is a crown land title DP 1097082 and the address is listed as 3 Osman Street, Blayney NSW, 2799.

The main vehicular access to the site is on South of Osman Street close to the intersection with Mid Western Highway (Martha Street).

There is a paved single lane road connecting the site on Southwest to the Blayney Ambulance Station.

On Osman Street there is a secondary vehicular exit way from the car park.

From Queens Street there is a paved area that supports vehicular parking.

Pedestrian access happens alongside Osman street frontage with the 2 major entry points being between the existing car park and the internal road.

The Site has existing patient car parking as well as staff Car parking and adjacent sheds for service vehicles.

The Ambulance Service NSW is located to the West of the Hospital Block with direct access to Site.

There is no opportunity for parking on Mid Western Highway. However, within the vicinity of the Hospital on Osman Street, 18 marked car spaces were identified. Osman street is quiet and residential; with an opportunity for cars to park in unmarked positions along the street where applicable.

3.2 SITE SUMMARY

The site is an existing hospital site and is zoned R1 General Residential in the Blayney Local Environmental Plan 2012. Health services facility is permitted with consent under the LEP.

Plan – Aerial – Vehicular and Pedestrian Access

Image – Aerial view of the existing site

Image – Aerial view of the existing site

Image – View of main admissions entry

Image – Rear access from Queen Street

Image – View of existing residential aged care gardens

Image – View from Existing Car Park

Blayney Health Service is located in the Blayney Local Government Area (LGA) in central NSW; on the south area of the town, margin the Mid Western Highway (locally Martha Street). The figure below shows the location in context with other health services within Blayney region.

1.	Bathurst Health Service	38km
2.	Bathurst Private Hospital	39km
3.	Orange Health Service	36km
4.	Orange Private Hospital	35km
5.	Dudley Private Hospital	34km
6.	Cowra Private Medical Hospital	71km
7.	Cowra Health Service	69km
8.	Canowimdra Soldiers Memorial Hospital	68km

3.3 SITE INVESTIGATIONS

All project team members including consultants visited the site and carried out investigations related to their disciplines. A detailed survey has also been carried out during the concept design phase. All this information has assisted the concept design process outlined in this report.

BIODIVERSITY

The current identified area for development impose minimal impact on the existing biodiversity/ landscape of the site. An arborist assessment will be undertaken as required during the future stages of the development.

HERITAGE

There are no listed historic values associated with the Blayney Health Service site.

BUILT FORM

The current hospital is located adjacent to the Great Western Highway and consists of one main single level structures with brick cladding and a metal roof. There are ancillary buildings, also single storey supporting the health service engineering, maintenance and other requirements.

DEVELOPMENT AREA

The western side of the site primarily contains the staff carpark and workshop area. With a temporary arrangement of these, the area can be cleared for new construction without much impact to the operations of the existing facility. The stage one of the construction will primarily utilise this area for location of new RAC and IPU wings.

TOPOGRAPHY

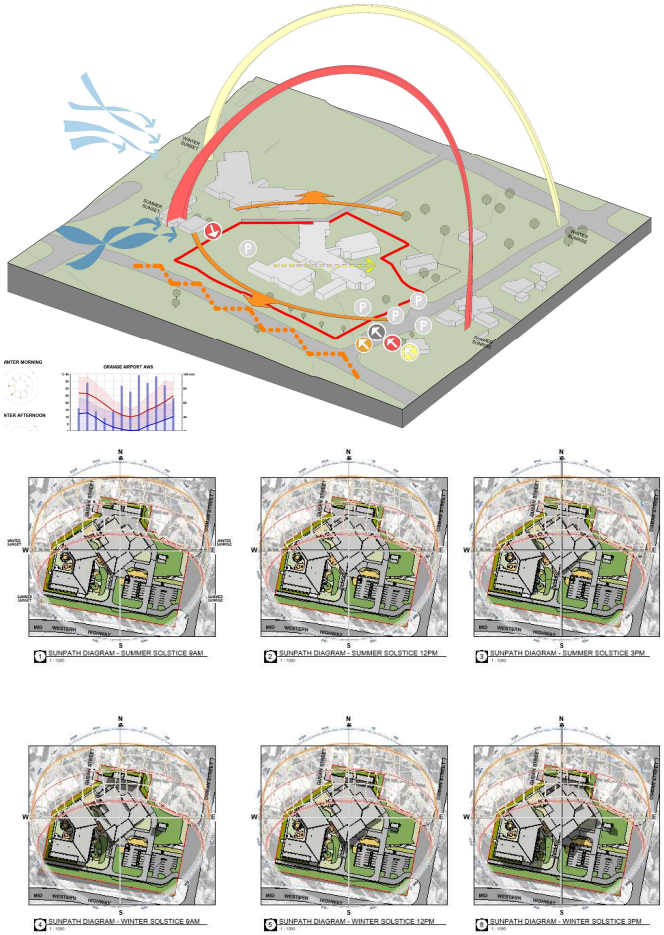
The site location is generally level with a slight slope to the north east.

Figure 3.6: Western NSW LHD Map of public hospital locations

Figure : View of rear vacant zone behind the existing RAC buildings

SUN AND WIND

The climate of the Blayney region is cool climate with mild summers temperatures and cold winters, and highest rainfall is in the June to November period. Breezes are generally present from south-west and westerly direction throughout the year. Persistently south-westerly winds from late winter and throughout spring. Shading to the façade is generally preferred. Sheltered outdoor areas should be protected from winds from



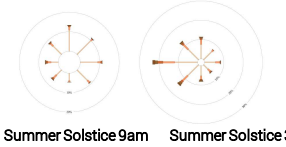
GEOTECHNICAL

The 1:100,000 series geological map of Blayney (Geological Survey of NSW, Geological Series Sheet 8730) indicates the site to be underlain by Wombiana Formation, generally comprising siltstone and limestone. An alluvial profile associated with Belubula River is present about 500m east of the site.

The boreholes have disclosed a generalised profile of fill overlying predominantly residual silty clay, with occasional layers of clayey silt. No bedrock was encountered, although the deeper clays showed remnant rock structure. Groundwater is present at relatively shallow depth in some areas of the site.

HAZARDOUS MATERIAL

Envirowest Consulting undertook a detailed site investigation. Asbestos containing materials were identified in the buildings. Non-friable asbestos was identified in Buildings 1 externally as cement sheeting and Building 3 internally and externally as cement sheeting and bituminous resin board. The asbestos materials were in a good to damaged condition with low accessibility and pose a very low to low health risk.



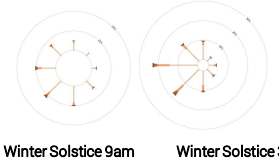


Figure - Site Analysis

Friable asbestos was identified throughout Building 3, emergency generator room as gaskets. The asbestos materials were in good condition with low accessibility and pose a low health risk.

Lead paint was identified in Building 3, emergency generator room as white paint on the walls. The material was in a fair condition with medium accessibility and is a moderate health risk.

Synthetic mineral fibres were identified in Buildings 1, 3, 4 and 6 as insulation in the ceiling cavities, hot water systems and heaters and pipes. The material was in a good condition with low accessibility and is considered a low health risk

Flammable and combustible materials were identified in Building 1 X-ray room, chemical storeroom, oxygen storeroom and throughout the building as oxygen tanks and hand sanitiser. Building 4 contained diesel and petrol stored within a flammable liquid cabinet. The material was in good condition with low accessibility and is considered a low health risk. Radioactive sources were suspected to be located within the X-ray room but were not identified at the time of the inspection. The materials are expected to be in a good condition with low accessibility.

Detailed findings are recorded in the Hazardous Material Audit.

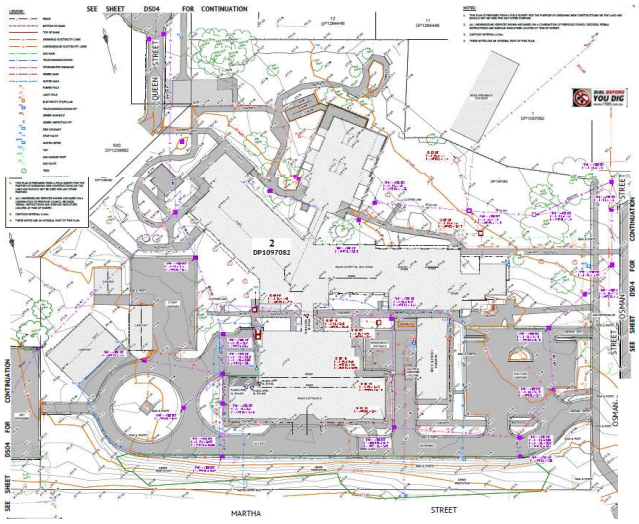


Image: Plan – Site Survey

4.1 SERVICE AND FACILITY PLANNING

4.1.1 CLINICAL SERVICES PLAN

The Blayney MPS is a small rural health facility located in the Southern Sector of the Western NSW LHD and it is the first-line health provider for the people of the Blayney catchment. Major redevelopment of the Blayney MPS is proposed to meet the current and projected demand for services.

The service redevelopment would include a new facility to expand the inpatient zone, enhance the residential aged care supporting infrastructure (such as communal areas), and expand consultation capacity at HealthOne Blayney. The new service will promote staff and patient safety, improve functional relationships, and enable best practice models of care to be implemented. Generally, services are provided at a role delineation level of one or two.

The Blayney MPS will provide:

- Residential aged care accommodation providing care to aged care residents with high care needs including clients with dementia who have been assessed as suitable for an MPS. Blayney MPS also provides respite care for low and high care residents.
- Inpatient services that will provide low level acute care to patients including palliative care in line with the agreed role delineation.
- Emergency services including stabilization and management in preparation for admission or transfer of care in line with level 1 role delineation.
- Imaging services including general x-ray with a visiting Radiographer onsite from the Cowra Health Service – two days a week.
- Western NSW LHD community health, outpatient/ambulatory services and Hospital in the Home (HiTH).

Space requirements associated with the above services including shared activity/ lifestyle areas, quiet room/family room, clinical support, non-clinical support and office space are detailed in the Schedule of Accommodation.

4.1.2 FUNCTIONAL PLANNING

The Blayney MPS and HealthOne will continue to provide an important vehicle for the implementation of the integrated health care service model for the rural community.

The MPS model is generally suitable for small rural communities where there is:

• An ageing population.

• A lack of, or limited, nursing home and hostel accommodation

• Difficulty in sustaining stand-alone hospital, health, community and aged care services.

Many staff that work in the MPS will provide services across residential, acute care and emergency service areas. As a consequence, services tend to be arranged around 'clusters' with a core zone that includes a staff station and associated utility and equipment rooms. The model for each of these broad services is unique.

The arrangement of space within the building will be important to ensure efficient staffing models can be achieved.

Key elements for the planning are:

- A single main entrance for the public to the MPS,
- A central waiting area and reception for patients and visitors, with sub wait areas for HealthOne,
- Central staff / support areas – minimal staff overnight (2-3) and includes a staff station and utilities that supports the areas operating as a 24/7 zone across IPU, ED, Residential aged Care,
- Minimised travel distance across the various areas,
- Optimal staff safety – no-one working in isolation,
- Optimise observation of clinical areas,
- Internal link /access between MPS and HealthOne.

The functional relationship diagram developed by Johnstaff during the development of the functional design brief shows the key adjacencies required for the Blayney MPS.

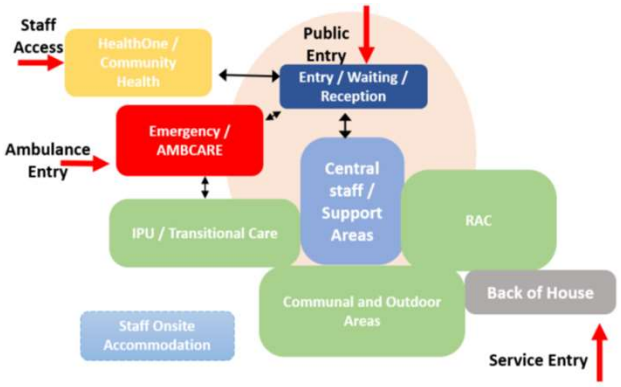


Diagram - Functional Relationships Concept Design

4.2 DESIGN PRINCIPLES

During the Masterplanning phase the objectives for the service were identified as per below.

1. Support the health and wellbeing of the Blayney community.

2. Support contemporary, integrated Models of Care.

3. Support acute and sub-acute care models in the one facility, considering safety and efficiency.

4. Enhance current relationships with education providers, both local and remote, for training and support of undergraduates.

5. Support optimisation and coordination of the local health service profile including partnership opportunities with local providers.

6. Support the provision of sustainable health services that can be resourced.

7. Be easily accessible to the people of Blayney and the surrounding community.

8. Support the local health service with a new facility, within an efficient timeframe.

9. Minimise any adverse impacts of the redevelopment on the community.

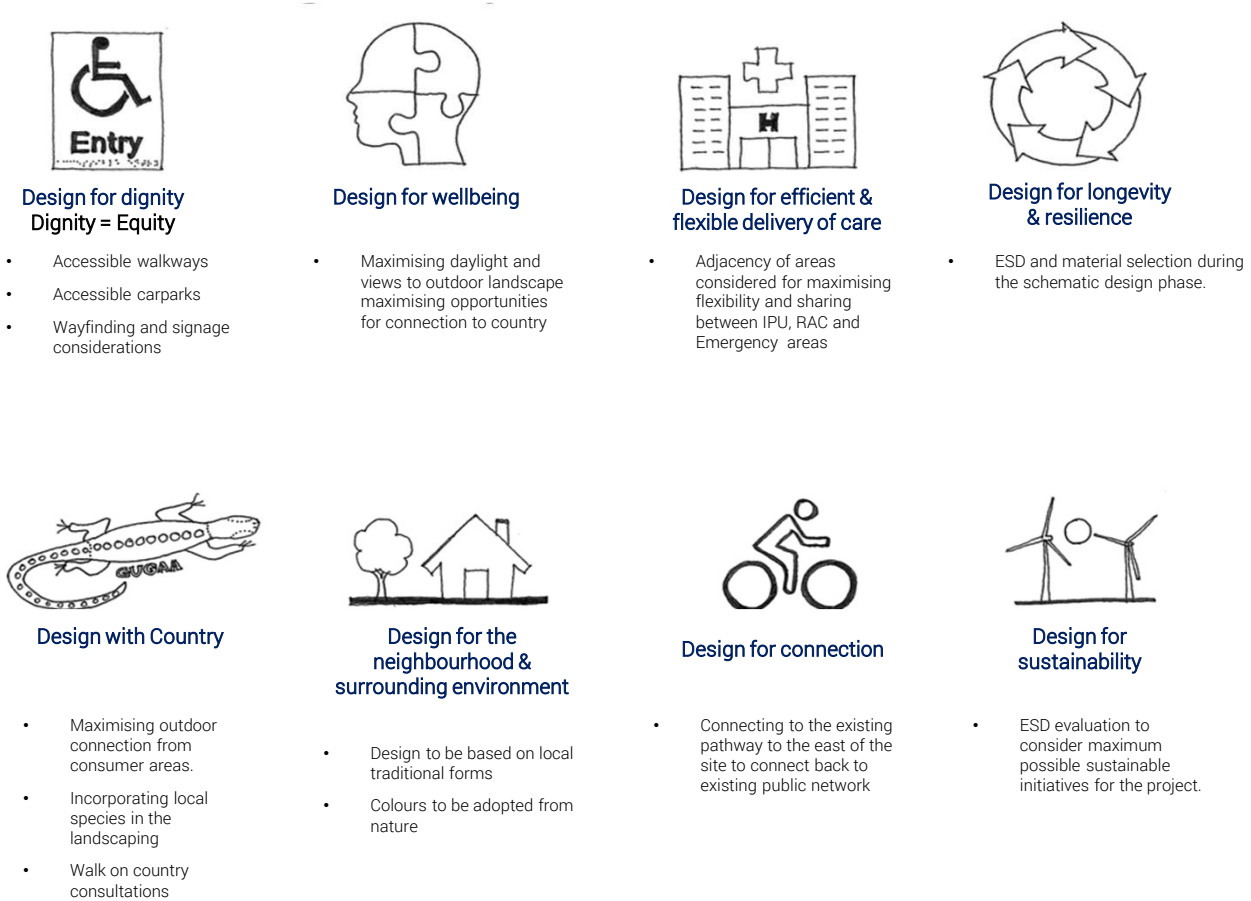
10. Enable the provision of safe and reliable health care including the flexibility to respond to unplanned events.

11. Allows for future scalability and provides space to expand the Hospital and/or other ancillary services easily in the future.

12. Provides good spatial opportunities for 'connection to country'.

Overall, the goal for the Project team is to deliver a sustainable long-term precinct which can be efficiently delivered in a regional context and staged to support operational continuity of the hospital.

The design principles inform the key approach to facility planning and developing the design. With a contemporary model of care, following the set of guiding design principles developed by HI in line with NSW Government Standards and policies. The connection to the country with an outlook to the nature forms one of the major design principles informing the building and the precinct plan.



Design for dignity
Dignity = Equity

- Accessible walkways
- Accessible carparks
- Wayfinding and signage considerations

Design for wellbeing

- Maximising daylight and views to outdoor landscape maximising opportunities for connection to country

Design for efficient & flexible delivery of care

- Adjacency of areas considered for maximising flexibility and sharing between IPU, RAC and Emergency areas

Design for longevity & resilience

- ESD and material selection during the schematic design phase.

Design with Country

- Maximising outdoor connection from consumer areas.
- Incorporating local species in the landscaping
- Walk on country consultations

Design for the neighbourhood & surrounding environment

- Design to be based on local traditional forms
- Colours to be adopted from nature

Design for connection

- Connecting to the existing pathway to the east of the site to connect back to existing public network

Design for sustainability

- ESD evaluation to consider maximum possible sustainable initiatives for the project.

Figure 4.2: Design Principles

4.3 MASTERPLAN

The concept design phase investigated the option for building at the north-west part of the existing hospital site. Based on the preferred building location, the precinct plan was developed to consider the engineering services requirements, access to the neighbouring ambulance station, and the future expansion of the service.

The master plan addressed the following key design considerations:

- Better wayfinding opportunity to the building entry from the main entrance of the site,
- Less staging during construction for minimising the impact on the operation of the existing facility.
- Strategic landscape design to maximise retention of the existing vegetation and connection to the pedestrian pathways,
- Carparking close to the hospital,
- Identifying location for future Staff Accommodation area,
- Identifying future expansion possibilities.

The plans were presented to PUG to consider their comments. In general, to maintain the operations of the existing service, the construction of the new building will be done in two stages. The RAC and IPU wing will be constructed in the first stage and the rest of the facility will be constructed in the second stage.

As the building is located within the existing hospital site, the infrastructure is largely supported by the existing networks servicing the current hospital. Existing services infrastructure will be upgraded to support the new development as required. Some of the services will be relocated to support the new development.

The project incorporates new parking as the expansion of the existing parking. Apart from patient and visitor parking, there will be staff and fleet parking provided for the project.

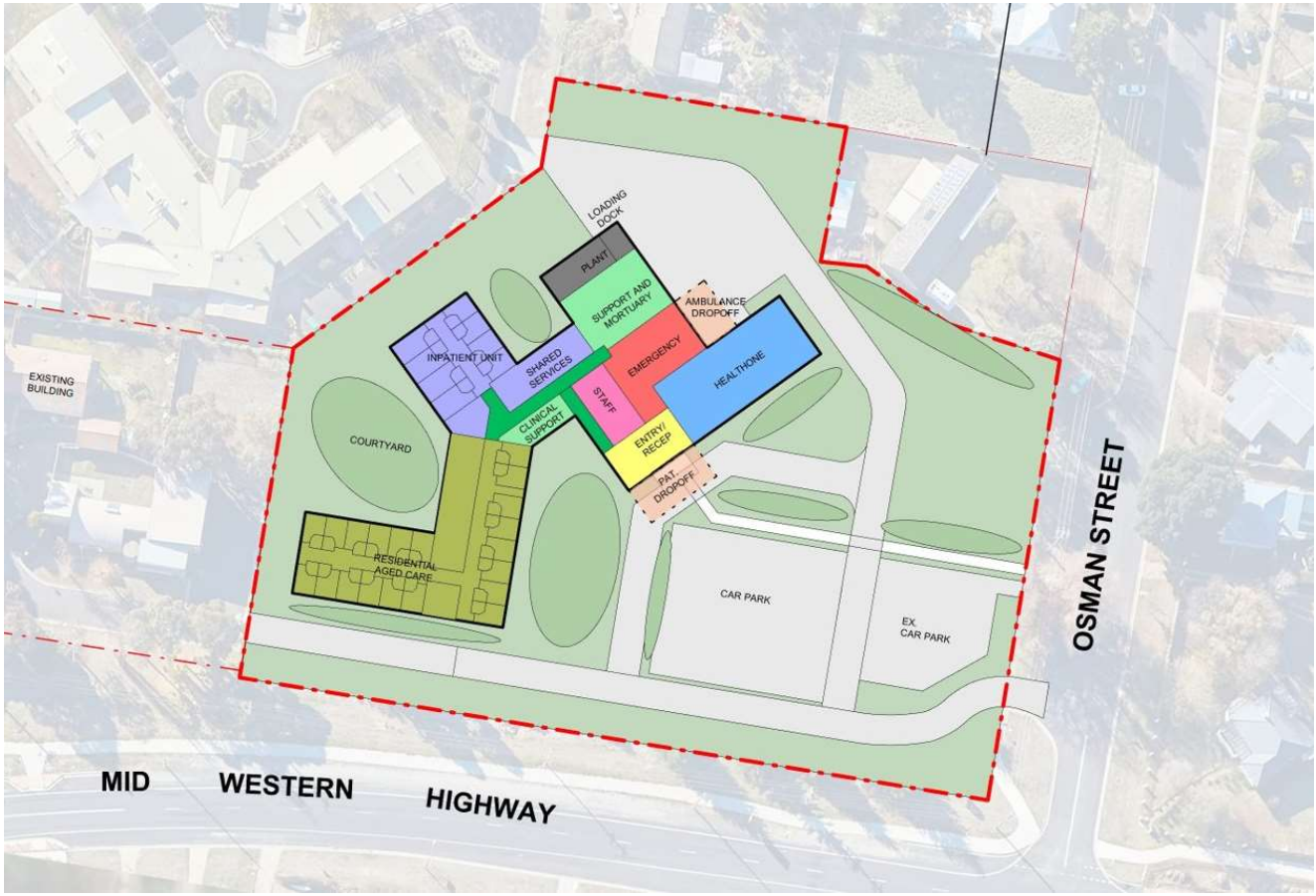


Figure 4.3 Precinct Plan

4.4 VALUE ENGINEERING

A value engineering exercise was undertaken to identify opportunities to improve the costs of the project. The primary objective of this exercise was to identify potential cost-saving without compromising the quality or performance of the project. The team identified areas such as glazing and landscaping to align with the design and quality while maintaining cost-effectiveness.

The key items implemented from the recommended options are as per below.

- Rationalisation of glazing extent.
- Reduction in Landscape area consolidating detailed landscaping to key areas of the project.
- Rationalisation of roof as a Tender option,

The exercise contributed to optimise the overall project value.

4.5 SoA RECONCILIATION

A Schedule of accommodation outlines detail area of each department. The service will provide 20 RAC and 12 IPU beds:

20 x RAC Bedrooms. Two of them are interconnected with a door if a family is together.

4 x IPU Two Bedrooms,

2 x IPU Single Bedroom

1 x Palliative Care Bedroom,

1 x Bariatric Bedroom.

The Palliative care bedroom is co-located with a family lounge and an outdoor courtyard for exclusive use.

The Living and Rehab areas for the RAC consist of Lounge, Dining, ADL Kitchen, ADL Laundry, Multi-purpose Room. There are shared services such as Activity Room and Gym closer to the main entry of the facility. They are central and well-located to maximise outdoor connections.

The Multipurpose Lounge is located near the staff station can be used by family members of the RAC and Inpatient Unit. This area can also serve as a space for a salon. This space is also suitable for accommodating extensive family gatherings that extend to the outdoor area.

The staff zone will be comprised of clinical support areas including staff station and utility rooms, storage and service spaces. A zone for staff offices and amenities are located away from patient areas and be utilised by clinical and support staff.

4.6 VARIANCE FROM APPROVED SCOPE/ AusHFG

There is no significant variation from the approved scope and the briefed area

Removal of 1 x Staff Toilet	A staff toilet was deleted as the layout allowed staff area to be located close to the clinical support. This means all staff can use the centralised staff toilets.
Nook for Interview room	The interview room in Emergency is designed for Methodone dosing. For privacy, dignity and staff safety, a nook outside the interview was designed with an openable window.
Removal of Staff Base in Emergency	The Staff station in IPU was expanded to allow for min 3 staff to work in the area. To balance this increase, the staff station in an emergency was deleted,

Department	Brief Area (as per SoA)	Designed Area	Variance	Comments
Entry & Waiting	37 sqm	39.5 sqm	+1.5 sqm	- Layout adjustments of waiting area
Reception/ Admin	49.5 sqm	52.4 sqm	+2.9 sqm	- Increased reception area to accommodate all user requirements.
HealthOne	281 sqm	290.3 sqm	+9.3 sqm	- Minor layout adjustments to to accommodate structural grid. - Staff room is increased to accommodate user requirements.
Emergency Services	151.5 sqm	169.4 sqm	+17.9 sqm	- Ambulatory care size is increased to allow for circulation within the room.
Staff Amenities	69 sqm	71.9 sqm	+2.9 sqm	- Minor layout adjustments
Inpatient Services	253 sqm	259.1 sqm	+6.1 sqm	- Design adjustments to accommodate structure grid and room layouts
Residential Aged Care Service + Shared services	710 sqm (620 sqm + 90 sqm)	819.5 sqm (719.5 sqm + 100.2 sqm)	+119.5 sqm	- Additional area required to complexities around irregular shape rooms. - Increased Dining and Kitchen area to accommodate required circulation. - X-ray area increased to provide clearances required for the existing machine.
Clinical Support	45 sqm	80.8 sqm	+35.8 sqm	- Increased Staff Write-up area - Additional Bay for Obs machines behind Staff Write-up bay
Non Clinical Support	158 sqm	177.7 sqm	+29.7 sqm	- Increased kitchen size as per the design requirements.
Circulation	561 sqm	654.3 sqm	+93.3 sqm	- To accommodate irregular shape of the building required for staging.
Travel and Engineering	533 sqm	237.2 sqm	-295.8 sqm	- Outdoor plan area for mechanical plants
Total	**2990 sqm** (incl Planning contingency 5%)	**2943.7 sqm**	**-46.3 sqm**	- Excludes outdoor areas such as Dirty Workshop, Garden Shed etc.

Figure 4.6 Table – Variance from Brief area / SoA

The table above shows a summary of the Variance between SoA areas and designed areas. The Schedule of Accommodation appended to the report shows the itemised Brief and Designed areas.

4.7 DETAILED DESIGN

The site and building plans from the earlier design phase were developed further during the Design Development phase. Addressing the functional areas and key adjacencies as required for the building operation, the design addresses the primary aspiration of providing an open, welcoming and safe facility that is well-connected to the landscape and outdoor elements.

During the Detailed Design phase, consultations as outlined in User Engagement and Community Engagement sections above, were undertaken to incorporate comments and feedback from the stakeholders.

The feedback from all stakeholders was addressed in the design with its opportunities and constraints. The plan was accepted by the PUG members and is finalized for Design Development phase. There were consultations to review interior and landscape design as well.

The design is coordinated with engineering (mechanical, electrical, ICT, lighting, hydraulics, fire), BCA and DDA requirements.

Figure 4.7.2: Diagram – Design Development Plan

Figure 4.7.2: Diagram – Schematic Design Plan

4.8 STAGING PLANS

Stage 1 includes moving the sheds at the back to allow for the construction of the RAC and IPU Wing. A temporary link will also be constructed to connect new and existing buildings. At the end of Stage 1, existing RAC and IPU will be moved to the new facility.

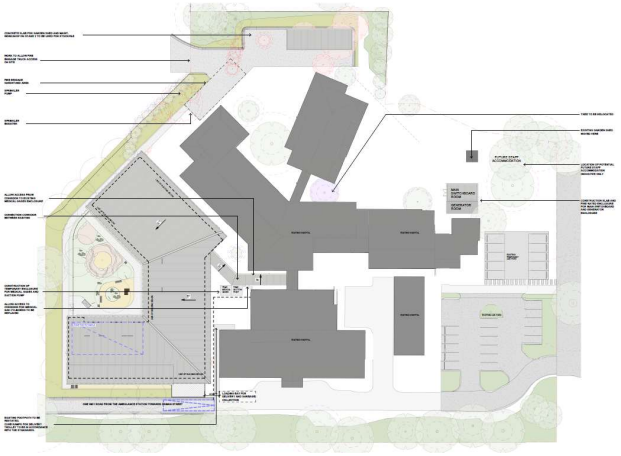


Figure 4.8: Stage 1

Figure 4.9 Stage 2

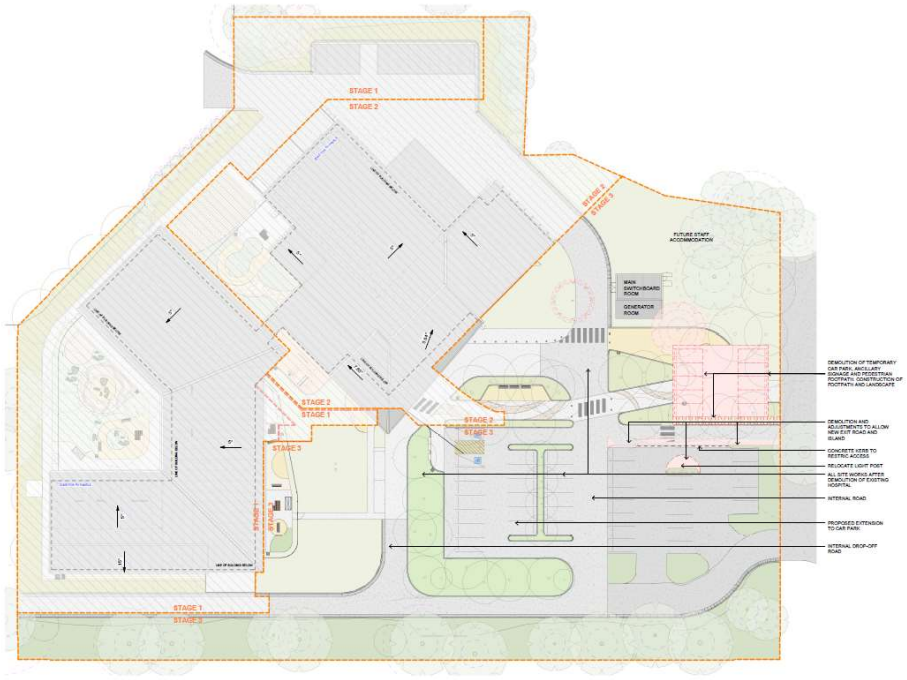


Figure 4.10 Stage 3

Stage 2 involves demolition of existing IPU and RAC wing. The rest of the new health service building including HealthOne will be constructed after the demolition.

Stage 3 will see the demolition of the existing facility where the front of house carpark and landscape works will be undertaken to complete the project.

5.0 ARCHITECTURAL DESIGN

5.1 CONCEPTUAL FRAMEWORK

The existing hospital site is surrounded by other properties along north and west boundaries. The other two boundaries are along the Great Western Highway and the Osman Street. As such, creating the outlook internally for patients and staff is very important. Key considerations to address this in the design are outlined below.

- Glazing overlooking landscape along entry, waiting and main hospital corridor,
- Internal courtyard for RAC and IPU patients,
- Access to outdoor areas for shared services such as Therapy room and Gym,
- Staff areas to incorporate outdoor connection,
- The landscape design with maximise the connection to nature

5.2 SITE SETTING

The northern boundary of the existing hospital site is shared with 2 single dwelling houses. The north-west boundary is along the Lee Hostel, a private aged care facility. The western boundary is adjoining Ambulance NSW. The site is bound by Osman St to the East and Martha St to the south.

The main entry to the site is from Osman street to the east. There is a connection to Queen Street to the northwest corner that is currently being underutilised.

The main hospital building is located central to the site with entry and drop-off to the south, HealthOne to the east and RAC wings to the north.

The western area of the site is being used for staff parking and workshop areas. Therefore, it will be easier to relocate these services for new building works, without major impact on the current operations.

Figure 5.1: Plan – Building zones and Access

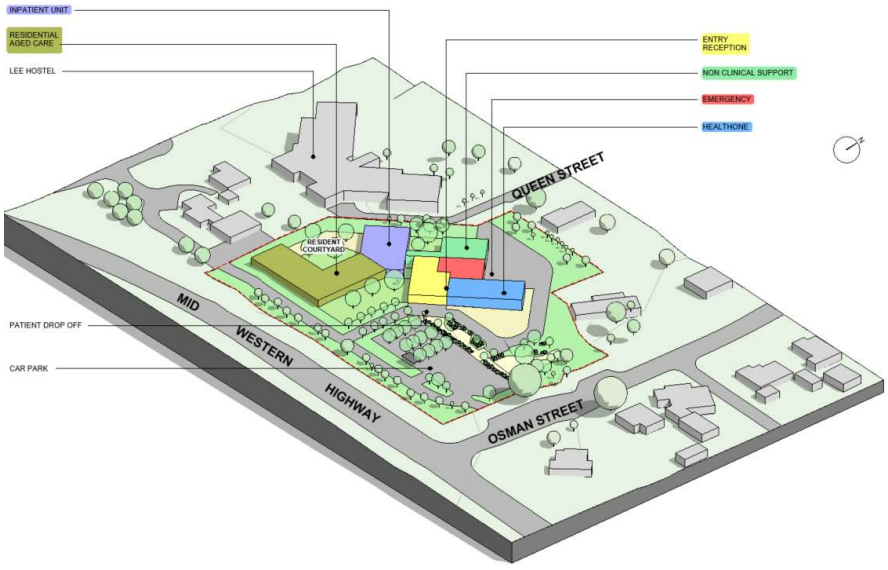


Figure 5.2: Concept View – Isometric View

5.3 ACCESS AND CIRCULATION

The existing hospital site has a single main entry from the Osman street on east. The existing access road will be retained and a new road will connect the site access to the building entry, drop-off area and new carpark. A new north south road will connect ambulance and the loading area to the front if required. However, there is a separate loading and Ambulance entry from the Queen St in the north west corner.

There will also be pedestrian paths to connect existing public road footpath to the main hospital entry.

For the new health service building, there will be a single point for public entry. All visitors will enter via the main entry. An intercom system will be required to provide contact between staff and visitors when the reception staff are not available. Ambulance presentations will enter via the Ambulance entry connected to the Emergency. A service entrance will provide vehicle access for delivery trucks. The Back of House area will accommodate a discreet Staff entry if required.

5.4 CAR PARKING

The existing hospital site has a carpark very close to the site entry which will be retained. The project will also include some new on-grade carparking closer to the proposed hospital building.

A designated undercover drop-off area will be provided near the entry. The accessible carpark spots will be provided very close to the main entry.

The existing Staff Car Park and Covered Fleet Car Parking (including a bus) will be relocated from the existing location to allow for the construction of the first stage.

A temporary car park has been provided alongside Osman Street to balance those staff car spaced removed on the South-West side; until the demolition of the existing hospital takes place and the area for the construction of the car park is available. And the Covered Fleet Car Park will be established on the North-West corner of the site – with access from Queen Street.

5.5 24 HOUR ZONES

Blayney Health Service is operational 24 hours/day, 7 days/week. RAC, Inpatient Unit and Emergency will be operational 24/7. The other areas will mainly be occupied during the day for outpatient activities. Overnight, nursing staff based at the staff station will monitor the 24-hour zones as well as entry and exit points via CCTV and the intercom network.

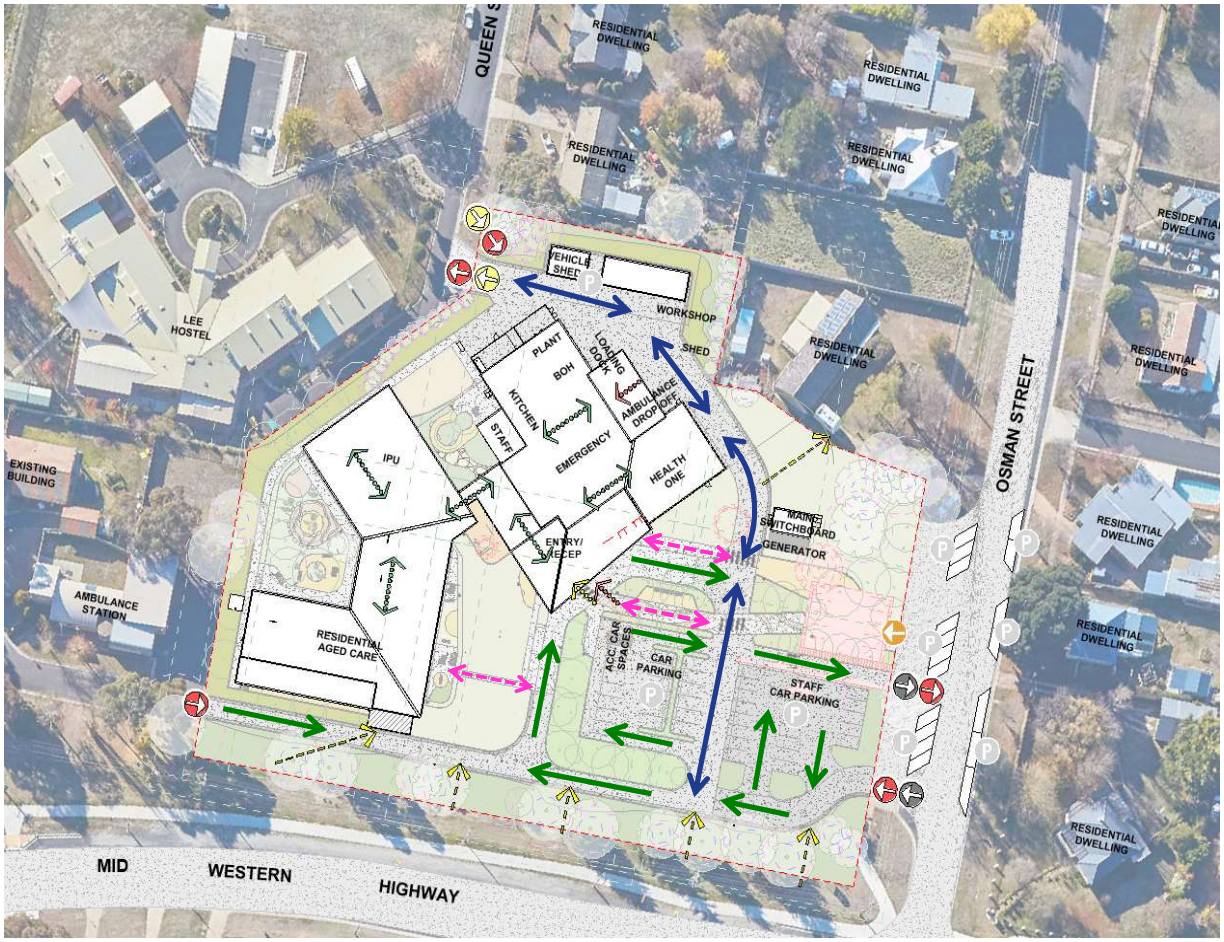


Figure 5.3: Diagram – Access and Circulation

External views
Staff Observation

Figure 5.4: Plan – View & Observation

5.6 BUILDING LEVELS

The new health service will be at RL 874.650 for RAC and IPU wind. The HealthOne will be at RL 874.200. The levels are above 1in 100 flood levels on site.

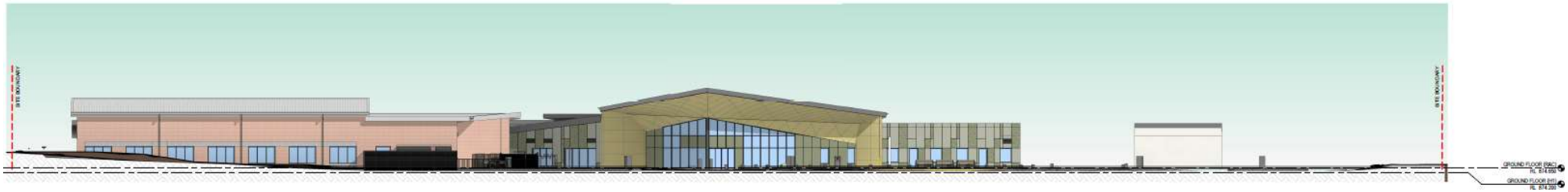


Figure 5.5: External Elevation – South

Figure 5.6: External Elevation – West

5.7 ARTICULATION

The building will be governed by design principles that create meaningful spaces for engagement, including:

A place to be safe & supported: Transparent and connected open plan with windows to let daylight in. Comfortable domestic features with areas to relax and recover.

A place for recovery: Soft natural materials and diffuse light appeal to the senses, creating a restful and calm experience throughout.

A place to meet and engage: A shared environment with opportunities to connect with others.

The building design revolves around creating a strong visual connection to the landscape from the main entry that fosters a harmonious relationship between the built environment and its natural surroundings. By strategically framing views, incorporating glazing at strategic locaitons, and carefully positioning architectural elements, this design aims to achieve the connection as a seamless transition from interior to exterior.

5.8 BUILDING FABRIC

The proposed design will seek to enhance the materiality that draws from the existing local architecture and utilises the colours inspired by the rural landscape.

The building envelope on the main Health Service building primarily will use compressed fibre cement cladding system. Whereas the RAC and IPU wind will be made from brickwork. The high volume space at the entry aim to have a great sense of arrival that provides a welcoming entry for all the local community members. The glazing will have metal framing and the roof will be a metal sheet supported on a steel framing structure.

The chosen color palette for the façade draws direct inspiration from the enchanting hues of the surrounding nature. Keeping it more earthy and natural, the design intends to have a visual connection between architecture and its environment.

The new façade will be designed to exceed the Section J deemed-to-satisfy (DTS) requirements to meet ESD initiatives with insulation in the walls and roofs. Thermal bridging and air tightness will be taken into consideration to ensure thermal performance is maintained. The details are developed to ensure section J and ESD principles are achieved.

Figure 5.7: Images – Conceptual reference

Figure 5.8: Building Fabric Selection

HEALTHONE ELEVATIONS

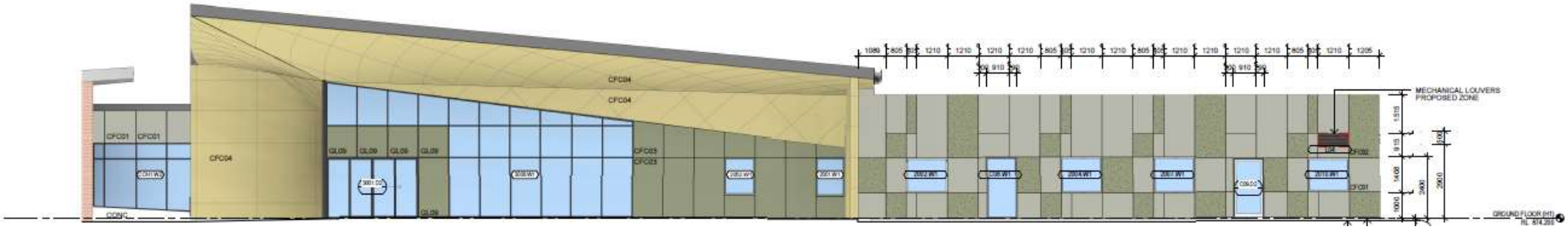


Figure 5.9: Healthone Building South-East Elevation

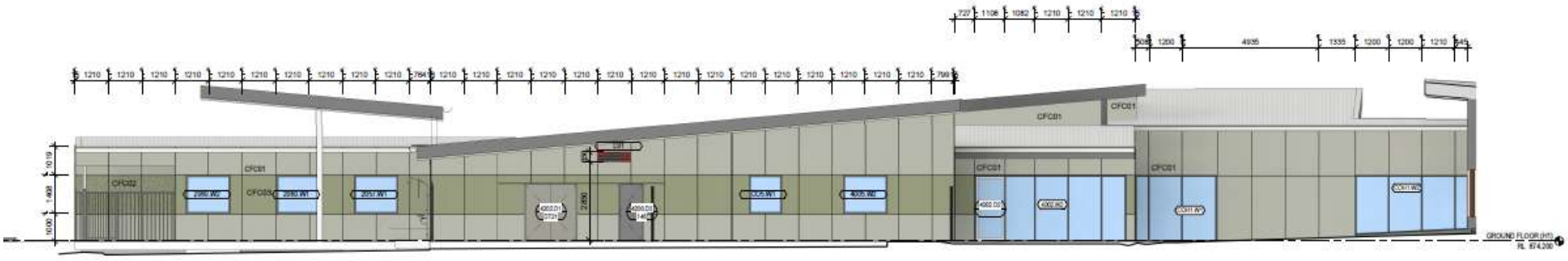


Figure 5.10: Healthone Building North- West Elevation

RAC/ IPU ELEVATIONS

Figure 5.11: RAC Courtyard West Elevation

Figure 5.12: RAC Courtyard North Elevation

Figure 5.13: RAC South Elevation

Figure 5.11: IPU South Elevation

FIRE COMPARTMENTS

The fire compartmentation plan is as per the adjoining diagram. The building is divided into 4 major compartments. RAC wind is further subdivided into 2 smoke compartments.

Figure 5.13: Plan – Fire Compartment

SMOKE WALL

2HR FIRE RATED LIGHTWEIGHT WALL

5.9 IMPACT ON EXISTING SERVICES

The location of the new facility is carefully selected to minimize any impact on the existing service. The existing service will be fully operational until the First Stage is concluded. A temporary link will be constructed during stage 2 to provide link from new RAC and IPU areas to the parts of existing hospital that will be in operation throughout the Second Stage of the construction. There may be some minor disruption during construction, but no major impacts.

5.10 FUTURE-PROOFING AND EXPANSION

Future expansion possibilities have been identified around IPU, RAC (East and West) and Heath One areas of the new facility. This for the expansion of the proposed facilities.

Figure 5.14 Diagram – Masterplan with indicative Future Expansion Zone

5.11 INTERIOR DESIGN

The internal spaces are designed to maximise the flow of natural light and finished with neutral palette softening the entrance to the building and creating an inviting scheme by adding a few accent colours to warm up the spaces and tie in with the surrounding culture.

For the entry space we aim to create a public & staff experience that is modern, professional, and welcoming, a place where the best quality of care can be provided. As you enter the building, we've created a visual balance and a sense of arrival.

The general palette is a fusion of the surrounding landscape, warm and earthy, linking in with the tones and textures of the bushes and heritage buildings. Throughout the building, unique materials and colours required will be specified for its purpose.

Preference has been given to selection of materials that are locally manufactured, recyclable and have low embodied energy where appropriate. Generally Green Star ratings will be sought for flooring, joinery, wall, and ceiling finishes, as well as loose furniture selections.

The building has been split with three theme colours, warm neutral colours in HealthOne, terracotta in the Inpatient Unit and green in the Residential Aged Care.

The intention for the Residential Aged Care is still to create a warm and home like environment with a more domestic approach. Within the joinery and furniture, soft natural tones finishes are specified, with some greens on the furniture, feature ceiling in corridor and memory boxes, together with the laminated timber, to create a restful and calm experience.

For the meeting room and working spaces, we have provided agility with various types of new flexible furnishings to change the way the space is used. This is intended to respond to the changing situations in its use for staff meetings, health promotion activities and group work.

To carry the same language and consistency throughout the building, the palette remains the same with raw earthy native Australian tones and the strong emphasis on texture play a role to humanise the space, whilst factoring the importance of anti-bacterial properties and high-performance applications.

INFECTION CONTROL

The design of the unit has considered the transmission of infection by key design features that minimise transmission. These include:

- surface finishes, that are easy to clean and maintain;
- ventilation, air conditioning, cooling towers and water systems that meet prescribed standards;
- the ability to isolate patients who are infectious or immunocompromised.
- separation of clean and dirty work flows;
- ready access to hand hygiene facilities and personal protective equipment (PPE);
- adequate storage; and adequate systems and procedures for waste
- management, cleaning and linen handling in consultation with Healthshare and the user group

Figure 5.15 Images – Conceptual reference

5.12 FINISHES AND FFE

FINISHES -

Primary internal material finishes will be a high quality, with a preference for patterns and textures that evoke an experience of nature.

Acoustic ceilings incorporating acoustic perforated plasterboard with insulation above will provide acoustic privacy to key consumer areas, especially where carpet is not provided.

Floor linings will be high quality floor tiles and homogenous vinyl in high traffic areas, with impervious and heavy duty carpet tiles to be explore where possible. The design will explore the need for feather edge skirting to Residential Aged Care and coved vinyl skirting to most of the other area, with aluminium skirting to rooms with carpet.

The kitchen, living and staff station areas will be designed in a cohesive and consistent material palette, to create a seamless and de-institutionalised experience to staff interactions. The reception counter is conceived as the communication point that is as welcoming as a hotel concierge with parcel drop-off on the side.

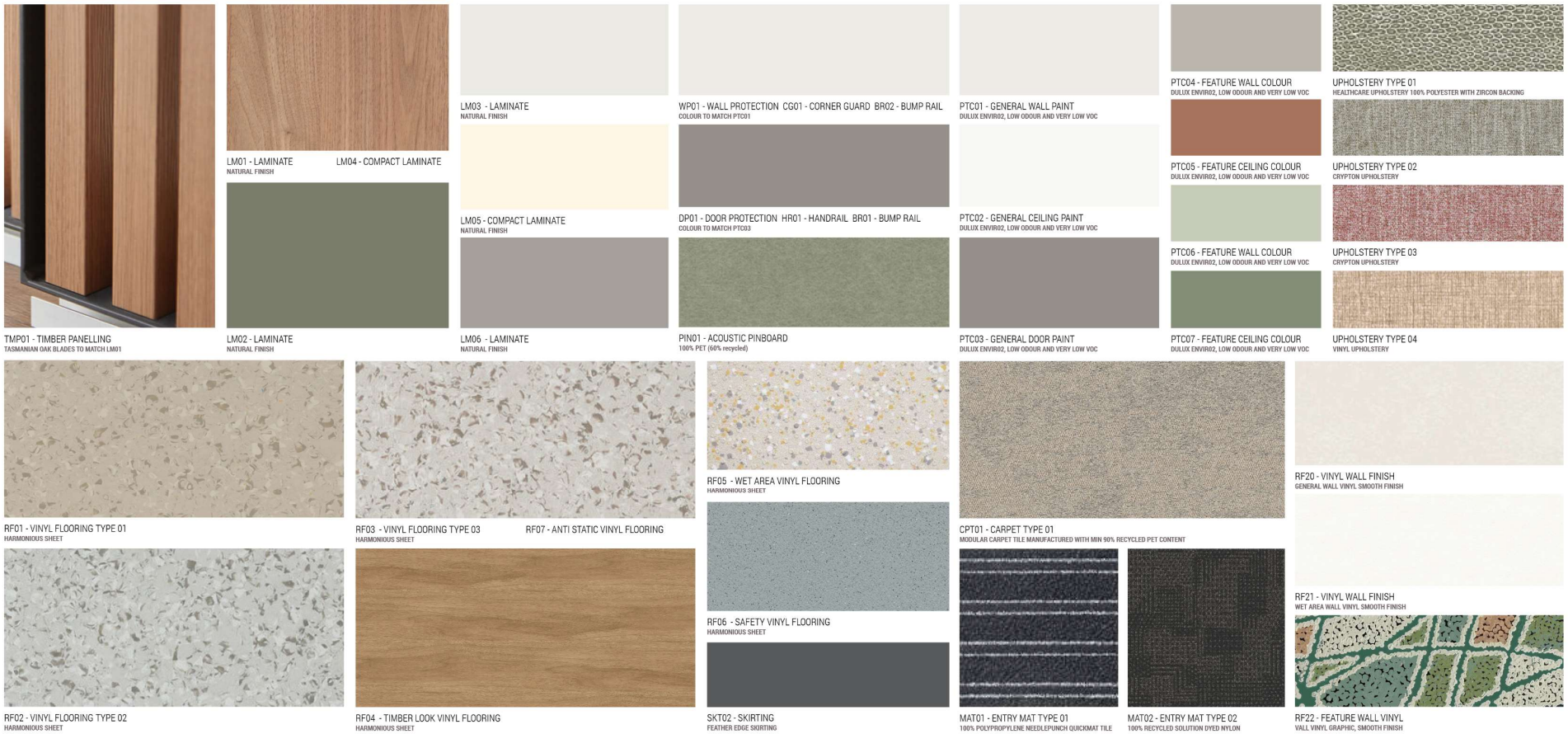


Figure 5.16: Images – Conceptual reference

FFE

Furniture in living spaces will be selected for flexibility and safety, with custom fabric-look vinyl that is impervious to water and bleach.

An FFE list outlines the Fixtures, Finishes and Equipment being considered for the project. This has been presented during the FFE Working Group meetings and the feedback from the users and Infection Control specialists has been included in the selection.

Visitor chairs

Staff Dining set

Meeting Table and Chair

RAC Bedroom

RAC Dining

RAC Lounge

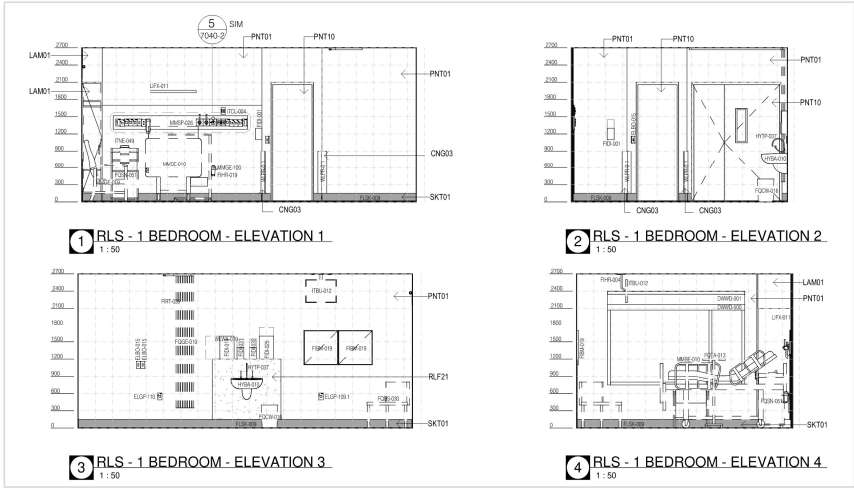
Banquette

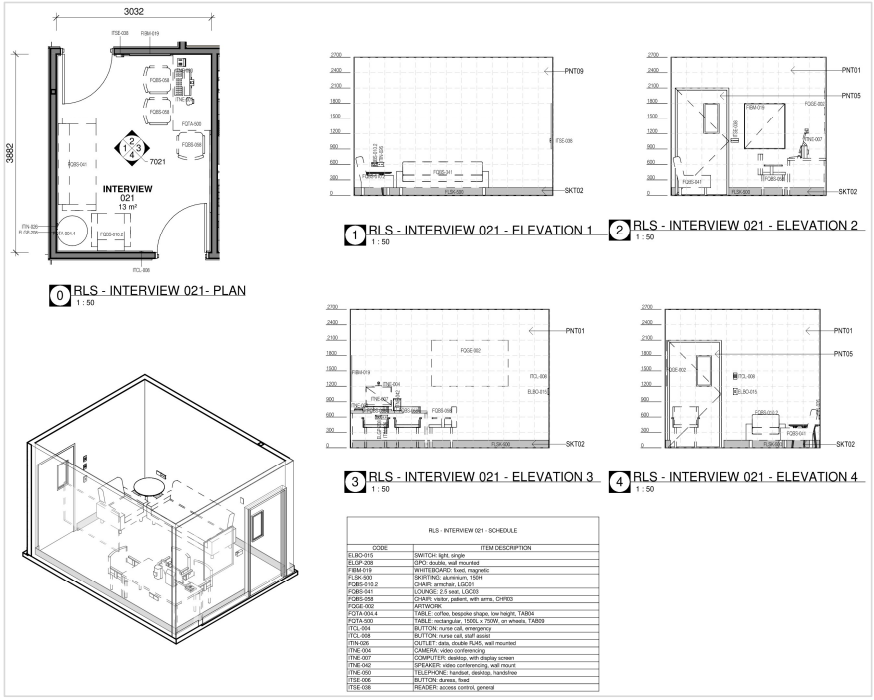
5.13 RDS AND RLS

During the consultations that took place in the Design Development phase, the RLS were presented to the user groups. Their comments were incorporated between the consultations and the updated RLS were presented in the next meeting.

The final RLS were issued as a part of 100% Design Development issue and were endorsed with comments.

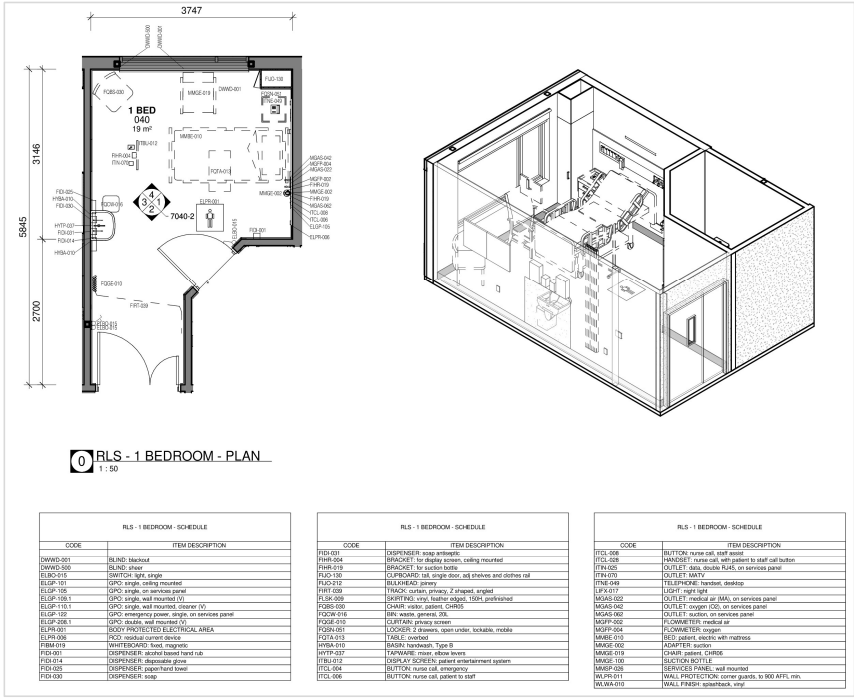
The RDS were completed based on dRofus template and are appended to this report.





RLS - INTERVIEW 021 - SCHEDULE

CODE	ITEM DESCRIPTION
ELBO-015	SWITCH: light, single
ELGP-205	GPO: double, wall mounted
FIBM-019	WHITEBOARD: fixed, magnetic
FLSK-009	SKIRTING: aluminium, 150H
FQBS-010.2	CHAIR: armchair, LGC01
FQBS-041	LOUNGE: 2.5 seat, LGC03
FQBS-058	CHAIR: visitor, patient, with arms, CHR03
FQGE-002	ARTWORK
FQTA-004.4	TABLE: coffee, bespoke shape, low height, TAB04
FQTA-009	TABLE: rectangular, 1500L x 750W, on wheels, TAB09
ITCL-004	BUTTON: nurse call, emergency
ITCL-008	BUTTON: nurse call, staff assist
ITIN-026	OUTLET: data, double RJ45, wall mounted
ITNE-004	CAMERA: video conferencing
ITNE-007	COMPUTER: desktop, with display screen
ITNE-042	SPEAKER: video conferencing, wall mount
ITNE-050	TELEPHONE: handset, desktop, handsfree
ITSE-006	BUTTON: duress, fixed
ITSE-008	READER: access control, general



RLS - 1 BEDROOM - SCHEDULE

CODE	ITEM DESCRIPTION
DWWD-001	BLIND: blackout
DWWD-500	BLIND: roller
ELBO-015	SWITCH: light, single
ELGP-101	GPO: single, ceiling mounted
ELGP-105	GPO: single, on services panel
ELGP-109.1	GPO: single, wall mounted (V)
ELGP-110.1	GPO: single, wall mounted, cleaner (V)
ELGP-122	GPO: emergency power, single, on services panel
ELGP-206.1	GPO: double, wall mounted (V)
ELPA-001	BODY PROTECTED ELECTRICAL AREA
ELPR-006	RCD: residual current device
FIBM-019	WHITEBOARD: fixed, magnetic
FIDI-001	DISPENSER: alcohol based hand rub
FIDI-014	DISPENSER: disposable glove
FIDI-025	DISPENSER: paper/hand towel
FIDI-030	DISPENSER: soap

RLS - 1 BEDROOM - SCHEDULE

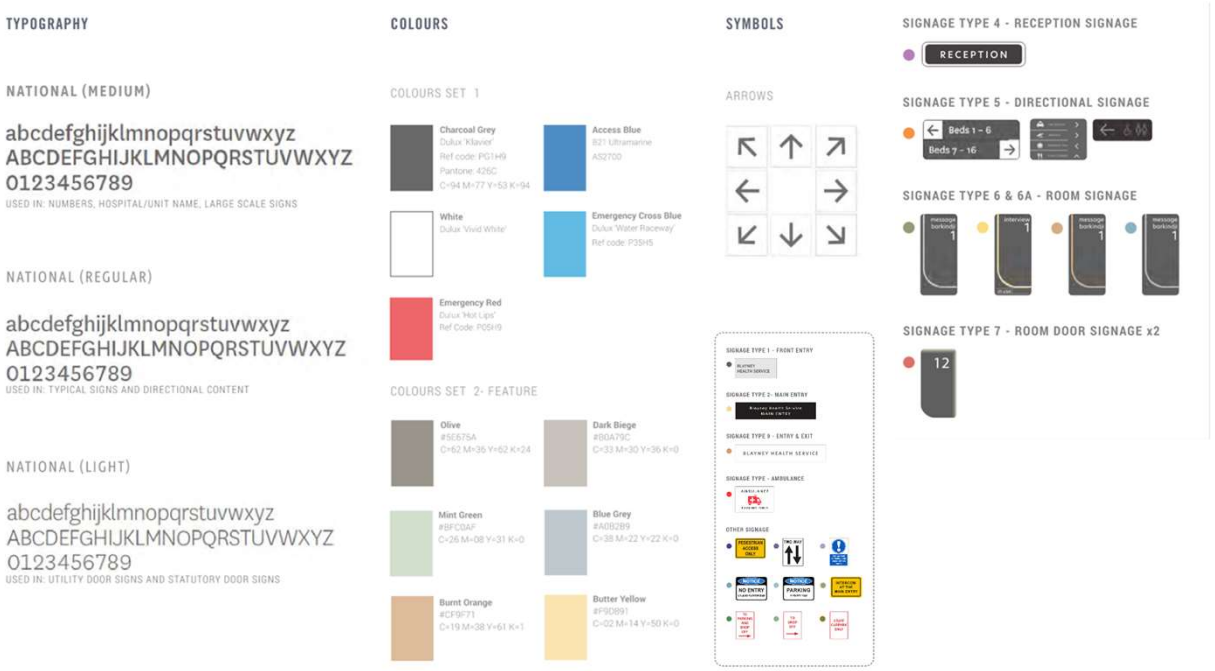
CODE	ITEM DESCRIPTION
FIDI-031	DISPENSER: soap antiseptic
FIHR-004	BRACKET: for display screen, ceiling mounted
FIHR-019	BRACKET: for suction bottle
FUO-130	CUPBOARD: tall, single door, adj shelves and clothes rail
FUO-212	BULKHEAD: joinery
FIRT-039	TRACK: curtain, privacy, Z shaped, angled
FLSK-009	SKIRTING: vinyl, feather edged, 150H, prefinished
FQBS-030	CHAIR: visitor, patient, CHR05
FQCW-016	BIN: waste, general, 20L
FQSE-010	CURTAIN: privacy screen
FQSN-051	LOCKER: 2 drawers, open under, lockable, mobile
FQTA-013	TABLE: overbed
HYBA-010	BASIN: handwash, Type B
HYTP-037	TAPWARE: mixer, elbow levers
ITBU-012	DISPLAY SCREEN: patient entertainment system
ITCL-004	BUTTON: nurse call, emergency
ITCL-006	BUTTON: nurse call, patient to staff

RLS - 1 BEDROOM - SCHEDULE

CODE	ITEM DESCRIPTION
ITCL-008	BUTTON: nurse call, staff assist
ITCL-028	HANDSET: nurse call, with patient to staff call button
ITIN-026	OUTLET: data, double RJ45, on services panel
ITN-070	OUTLET: MATV
ITNE-049	TELEPHONE: handset, desktop
LPX-017	LIGHT: night light
MGAS-022	OUTLET: medical air (MA), on services panel
MGAS-042	OUTLET: oxygen (OD), on services panel
MGAS-062	OUTLET: suction, on services panel
MGFP-002	FLOWMETER: medical air
MGFP-004	FLOWMETER: oxygen
MMBE-010	BED: patient, electric with mattress
MMGE-002	ADAPTER: suction
MMGE-019	CHAIR: patient, CHR06
MMGE-100	SUCTION BOTTLE
MWSP-026	SERVICES PANEL: wall mounted
WLPR-011	WALL PROTECTION: corner guards, to 900 AFFL min.
WLWA-010	WALL FINISH: splashback, vinyl

5.13 WAYFINDING

Building entry will be via the new carpark and drop-off driveway to a new main entry. The reception and waiting area will link inside and outside, providing good visibility to manage the arrival of visitors, staff and consumers. The front-of-house areas will have corridors leading to the main consumer spaces, including Health One, shared areas, emergency department and living zones within the Inpatient unit. This link will provide a visual connection from the entry to the landscape on the back. Private areas such as bedrooms are located away from the centre. The staff zone is located behind the reception zone through a secure door, providing privacy and separation.



5.17 BIM MANAGEMENT PLAN

A Design Building Information Modelling (BIM) Management Plan has been developed for the project in consultation with the Consultants.

The Consultants must produce a BIM to a level of development that defines the design intent allowing HI to tender the project to a selection of Managing Contractors.

The project Database and all models will be co-ordinated by discipline and published at the end of Part 4 Design Development.

The BIM will accurately represent the design solution by the end of Part 5.

Collaboration will primarily occur on the following platforms:

- Revit 2020 will be used by all disciplines and the build must be coordinated to ensure accurate coordination
- BIM 360 Docs will be used to support only the SHARING stages for regular exchange of WIP BIM models uploaded to the portal.
- Aconex platform will be used to support PUBLISHED documentation including preliminary and Stage issues.
- dRofus platform will be used for the maintenance of the Project Database.

Figure 5.17: Diagram – BIM Model

5.18 SAFETY IN DESIGN

While the design team have been considering safety in design aspects during the design development, a safety in design risk register will be developed in the next stage of the project which will outline project-specific and design-related risks involving the existing site, construction, maintenance, user group, functionality, safety, and indoor environmental quality.

6.0 LANDSCAPE DESIGN

6.1 DESIGN PRINCIPLES

The Site and Vision

The site for Blayney Multipurpose Service Redevelopment (BMSR) offers a series of distinct opportunities and challenges for the landscape planning and design. The landscape design aims to respond to site setting and landform and focuses on creating a sympathetic and healing place through responding to the varying local climate; providing a range of spaces that cater for various groups of community and different functions, along with focused endemic plantings hugging each area.

Design Principles

CONNECTION WITH COUNTRY

- Early engagement with First Nation Community to listen to issues and understand significant aspects to the community and integrate these items into the design.
- Celebrate the cultural heritage of the region by showcasing local endemic flora and uses to the wider community.
- Connect to the natural features of the site and highlight the importance of these elements.
- Engage with the first nations community to develop a strong sense of belonging and respect.
- Showcase the understanding, custodianship, knowledge, and respect the First Nations people have for the environment.
- Design to respect and respond to site setting and environment

HEALING LANDSCAPE

- Highlight the importance landscape and the connection with the environment has in healing the body & mind.
- Harness the power of healing through diverse spatial and materials in landscape.
- Create social and passive spaces to allow different programming and uses to the external spaces.
- Provide visual links to the external spaces and key features of the site.
- Provide protected space from varying site and climate conditions.

ACCESSIBILITY

- Provide inclusive access to all external areas to cater for all abilities .
- Provide clearly defined wayfinding to aid in navigation
- Use robust and trafficable materials where appropriate.
- Ensure design allows for discrete access for palliative patients & family
- Ensure security requirements are achieved but minimise the visual impact of these elements

SUSTAINABILITY

- Use a range of local endemic and regional endemic plant species and habitats to improve biodiversity.
- Provide shade to exposed hard pavement areas to mitigate heat exposure. Limit the use of non- permeable surfaces where appropriate.
- Incorporate Water Sensitive Urban Design (WSUD) principles to utilize and manage stormwater runoff.
- Use low maintenance, hardy and low water use plant materials.

6.2 SITE STAGING- LANDSCAPE WORKS

STAGE 1

Stage 1 focuses on utilising the existing road network and landscaping key areas adjacent to the hospital.

The design aims to create a naturalistic landscape setting that seamlessly integrates with the surrounding areas. The RAC and IPU wing will be constructed during the first stage, while the rest of the facilities will remain in the existing buildings.

The RAC Courtyard will also be included in Stage One, providing an external landscape space featuring a Yarning circle for the residents.

Overall, the landscape design incorporates naturalistic planting choices, paved courtyards, and curvilinear hardscapes to create a calming and familiar environment.

STAGE 2

Stage 2 scope of this project builds on the previous stage by providing :

- Health One facility and Ambulance Bays
- Staff Courtyard
- Additional tree planting and dry garden as part of the Connection with Country outcome.
- Additional path connecting into staff area

STAGE 3

Stage 3 of this project completes the project by providing :

- An entry garden sequence to provides clear navigation to building main entry
- Formal and informal pathway connections.
- Additional tree planting
- Paving design reflects the Connection with Country outcome.
- New general public parking

SCALE: NTS

6.3 MATERIALS AND FINISHES SCHEDULE

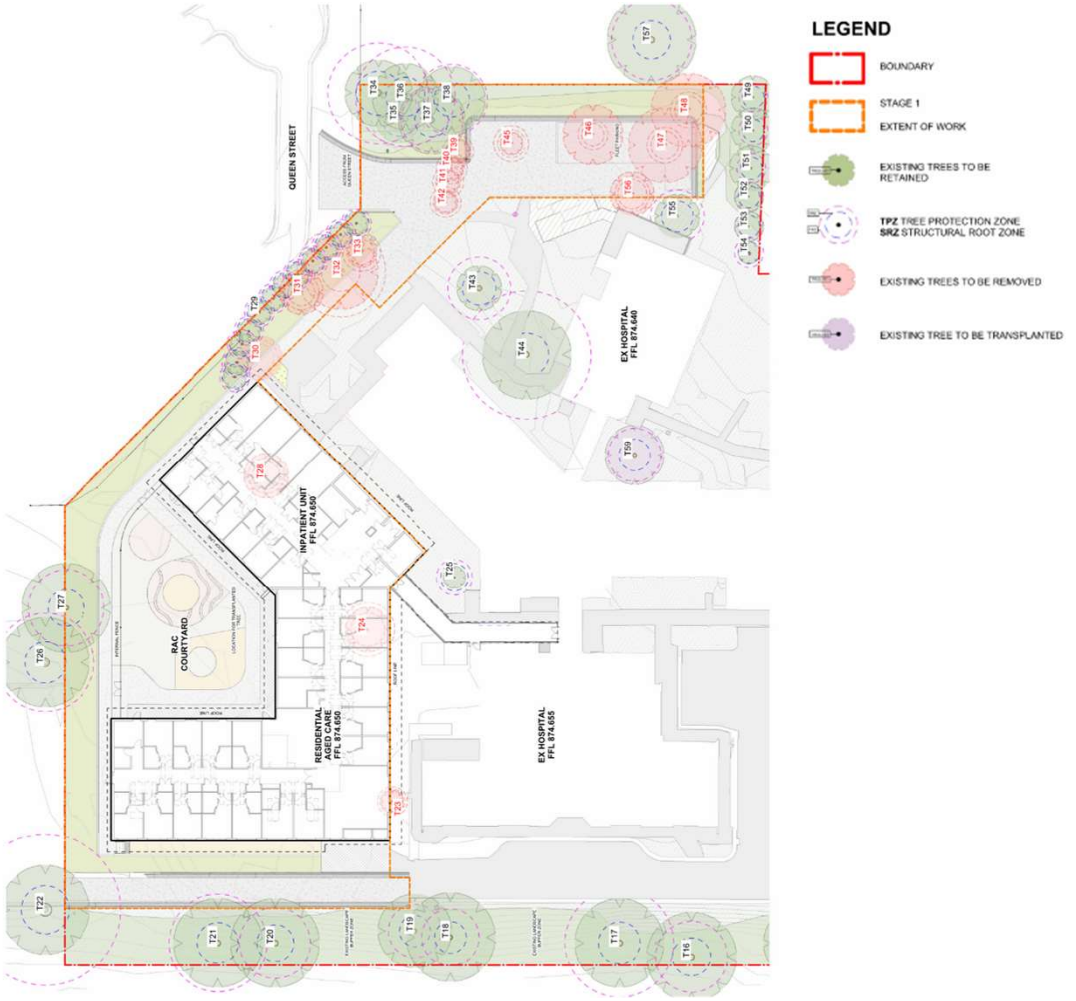
MATERIALS AND FINISHES SCHEDULE

SYMBOL	CODE	NAME	SPECIFICATION		SAMPLE (SAMPLE TO BE SUBMITTED PRIOR TO ORDERING)	SUPPLIER OR APPROVED EQUIVALENT	IMAGES (INDICATIVE ONLY)
	PAVING TYPES						
	PAV01	**STANDARD CONCRETE**	COLOUR:	Standard Grey	1m x 1m Sample Panel	Hanson 02 9354 2600 hanson.com.au	
			FINISH:	Broom Finish	1m x 1m Sample Panel		
			SEALER:	Waterbased, non enhancing, penetrative clear sealer.	1m x 1m Sample Panel	CCS Streetscape Sealer	
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:	Tooled edge, margin to be removed			
	PAV02A	**COLOURED CONCRETE**	COLOUR:	Caramel	1m x 1m Sample Panel	Concrete Colour Systems (CCS) 1800 077 744 concretecoloursystems.com.au	INDICATIVE ONLY
			FINISH:	Broom Finish	1m x 1m Sample Panel		
			SEALER:	Waterbased, non enhancing, penetrative clear sealer.	1m x 1m Sample Panel	CCS Streetscape Sealer	
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:	CCS Colour Hardener to be applied; Tooled edge, margin to be removed			
	PAV02B	**COLOURED CONCRETE**	COLOUR:	Driftwood	1m x 1m Sample Panel	Concrete Colour Systems (CCS) 1800 077 744 concretecoloursystems.com.au	INDICATIVE ONLY
			FINISH:	Broom Finish	1m x 1m Sample Panel		
			SEALER:	Waterbased, non enhancing, penetrative clear sealer.	1m x 1m Sample Panel	CCS Streetscape Sealer	
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:	CCS Colour Hardener to be applied; Tooled edge, margin to be removed			
	PAV03	**LOOSE DECOMPOSED GRAVEL**	COLOUR:	Gold	1m x 1m Sample Panel	ANL 13 14 58 anlscape.com.au	
			FINISH:	Broom Finish	1m x 1m Sample Panel		
			SEALER:	As per Manufacturer's specification	1m x 1m Sample Panel		
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:	No binding agent			
	PAV04	**SOFTFALL**	COLOUR:	2 Parts RH31 Cream (50%) 1 Parts RH41 Bright Yellow (25%) 1 Parts RH32 Brown (25%)	completed 1m x 1m section demostrating intended finish and selected colours. If specified, demonstrating mix of colours to suit pattern with linemarking.	Surface Design 02 9986 2445 surfacedesigns.com.au	RH41 RH31 RH31 RH32
			MATERIAL:	Rosehill TPV® INSPORT 0.5-1.5mm	1m x 1m Sample Panel		
			SEALER:	As per Manufacturer's specification	1m x 1m Sample Panel		
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:	Impact attenuation layer thickness to be as per Manufacturer's specification			
	PAV05	**COBBLESTONE [GRANITE]**	COLOUR:	Raven Grey	0.5m x 2m Sample Panel - Curved	Armstone 1800 901 471 armstone.com.au	
			FINISH:	Split top and edge	1m x 1m Sample Panel		
			SEALER:	Waterbased, non enhancing, penetrative clear sealer.	1m x 1m Sample Panel		
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.	1m x 1m Sample Panel		
			DIMENSION:	90x90x40mm			
			NOTES:	Ensure paving to be installed flush to adjacent pavement			

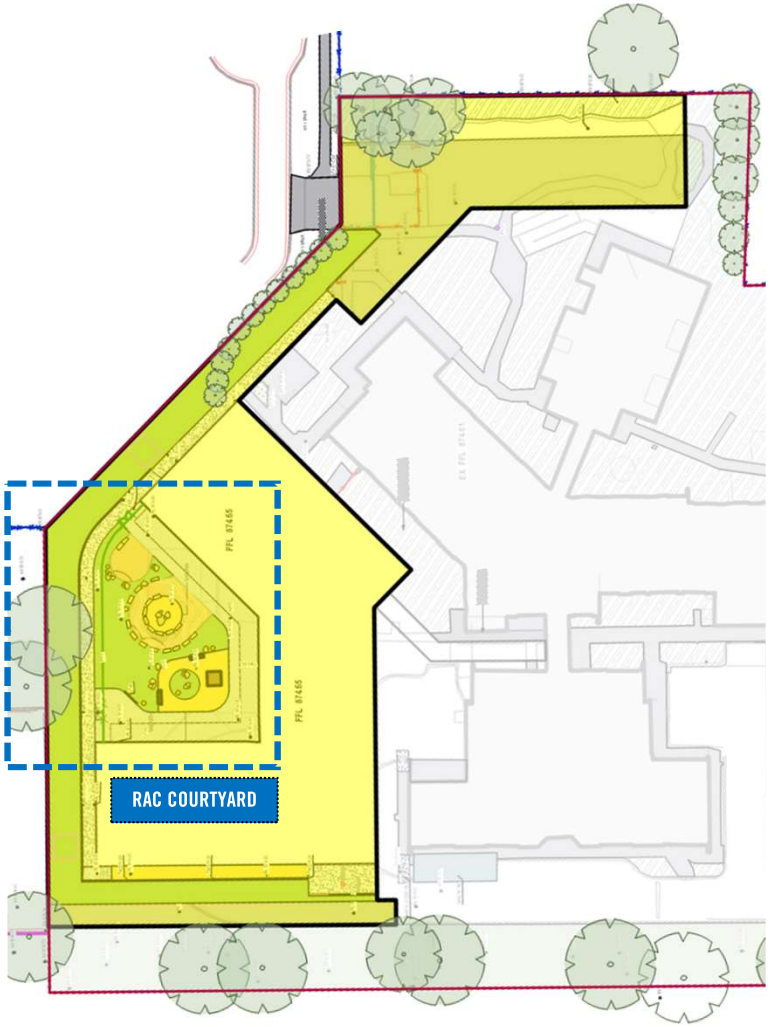
MATERIALS AND FINISHES SCHEDULE

SYMBOL	CODE	NAME	SPECIFICATION		SAMPLE (SAMPLE TO BE SUBMITTED PRIOR TO ORDERING)	SUPPLIER OR APPROVED EQUIVALENT	IMAGES (INDICATIVE ONLY)
	PAVING TYPES						
	PAV06	**SANDSTONE BOULDERS AND ROCKS [DRY CREEK BED]**	RATIO:	10% Sandstone Hammered Manhandables 1-2 Man lift 20% Sandstone ManHandables - Large 200-300mm 30% Sandstone ManHandables - Medium 100-120mm 40% Sandstone Rock 40-75mm	1m x 1m Sample Layout	Sandstone Hub 0484 007 550 sandstonehub.com.au	
			FINISH:	Natural			
			SEALER:	N.A			
			SLIP RATING:	N.A			
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:				
	PAV07	**CONNECTION WITH COUNTRY GRAPHICS**	DESCRIPTION	Abbrasive finish on concrete	1m x 1m Sample Layout	Contractor	
			FINISH:	Natural			
			SEALER:	As per Manufacturer's specification			
			SLIP RATING:	N.A			
			DIMENSION:	Refer to Landscape Drawings			
			NOTES:				
	PAV08	**GRAVEL MULCH**	DESCRIPTION	7-10mm Gravel Mulch with Planting	1m x 1m Sample Layout	Anston 1300 788 694 Anston.com.au	
			COLOUR:	Gold, similar to PAV03			
			SEALER:	N.A			
			SLIP RATING:	N.A			
			DIMENSION:	N.A			
			NOTES:				
	PAV09	**PAVING ON PEDESTAL** (REFER TO ARCHITECTURAL DRAWINGS FOR EXTENT AND DETAILS)	COLOUR:	Pebble Range	1m x 1m Sample Layout	Anston 1300 788 694 Anston.com.au	Pebble Range
			FINISH:	Shot Blast			
			SEALER:	As per Manufacturer's specification			
			SLIP RATING:	The paving must meet Australian Standards AS 4586-2013 Slip resistance. Provide Laboratory-test results confirming finished concrete surface conforms to equivalent of P5 - R12 DIN standard slip-rating.			
			DIMENSION:	600x300x50mm			
			NOTES:	Extent and details refer to architectural documentation			
	ASPHALT	REFER TO CIVIL DRAWINGS AND SPECIFICATION					
	WALL TYPES						
	WT01	**INSITU CONCRETE HOB WALL**	COLOUR:	Off white	1 lin.m showing jointing and dajacent treatments to be provided for approval	Hanson 02 9354 2600 hanson.com.au	
			FINISH:	Class 2 (Special Class) concrete, with 20mm pencil round edge. The highest quality of concrete finish attainable in accordance with AS 3610, and include the following: Surface finish: Class 1 formwork	1 lin.m showing edge treatment and finishes		
			SEALER:	Waterbased, non enhancing, penetrative sealer. Equilivent or equal to Penetrative clear CCS - Streetscape Sealer.	1 lin.m Sample Panel		
			ENGINEERING:	Footing and reinforcement to Engineers documentation	1m x 1m Sample Panel		
			DIMENSION:	150mm wide x 150mm high, length varies			
			NOTES:	Colour control: Class 1C grey scale concrete with a tonal range of 1 in accordnace with AS 3610.			
	WT02	**INSITU CONCRETE RETAINING WALL**	COLOUR:	Off white	1 lin.m showing jointing and dajacent treatments to be provided for approval	Hanson 02 9354 2600 hanson.com.au	
			FINISH:	Class 2 (Special Class) concrete, with 20mm pencil round edge. The highest quality of concrete finish attainable in accordance with AS 3610, and include the following: Surface finish: Class 1 formwork	1 lin.m showing edge treatment and finishes		
			SEALER:	Waterbased, non enhancing, penetrative sealer. Equilivent or equal to Penetrative clear CCS - Streetscape Sealer.	1 lin.m Sample Panel		
			ENGINEERING:	Footing and reinforcement to Engineers documentation	1m x 1m Sample Panel		
			DIMENSION:	200 wide x height and length varies			
			NOTES:	Colour control: Class 1C grey scale concrete with a tonal range of 1 in accordnace with AS 3610.			

6.4 LANDSCAPE DESIGN – STAGE 1



STAGE 1 TREE MANAGEMENT PLAN



STAGE 1 SITE PLAN

SCALE: 1:200 A1

6.4.1 YARNING CIRCLE- STAGE 1

1. GRAPHIC TO YARNING CIRCLE GROUND PLANE

2. NATURAL MATERIAL PALETTE

3. FARM ANIMAL SIGNAGE

4. TIMBER LOOK SEATING

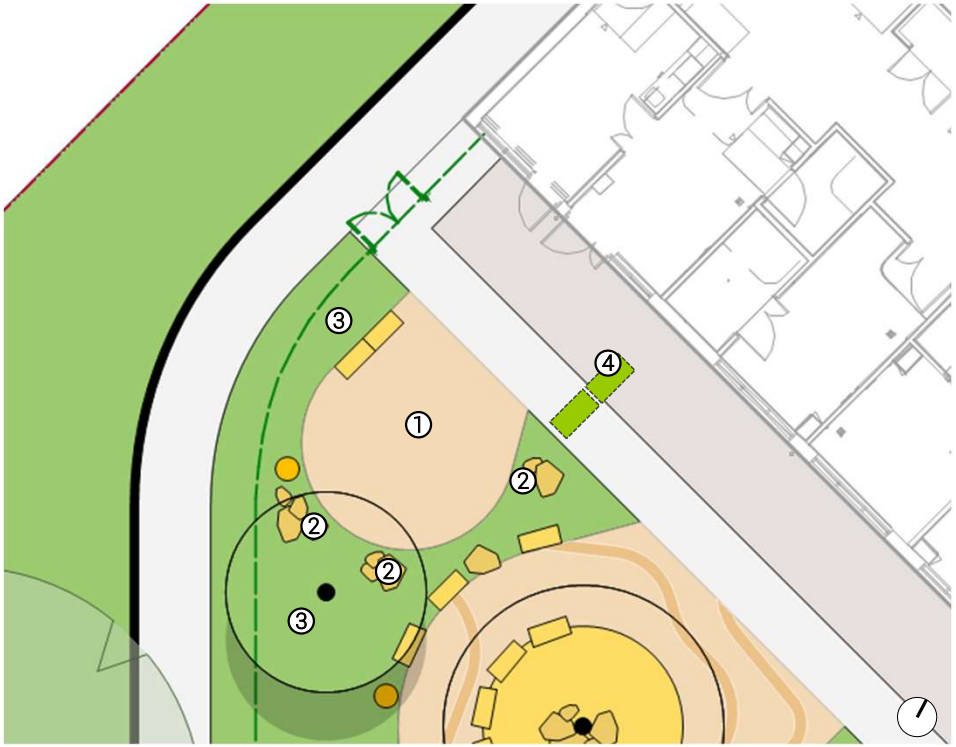
5. TIMBER LOOK PICNIC SET

YARNING CIRCLE

Yarning circle has been identified as a key element to the community during the Aboriginal Focus Group consultation.

The Yarning circle is located at the RAC courtyard and has levelled access from both Inpatient Units and Residential Aged Care rooms that can accommodate small to medium sized events.
The incorporation of cultural patterns on the ground plane, cultural use plants and home-like signage provide opportunity for cultural immersion. Cultural use planting that is endemic to the region wraps around the area and can be used for cultural events and ceremonies.

6.4.2 PALLIATIVE COURTYARD - STAGE 1



1. COLOURED CONCRETE

2. VEGETATION AND BOULDERS

3. STREET FURNITURE FORUMN SET

4. PRIVACY PLANTING IN PLANTER ON WHEELS

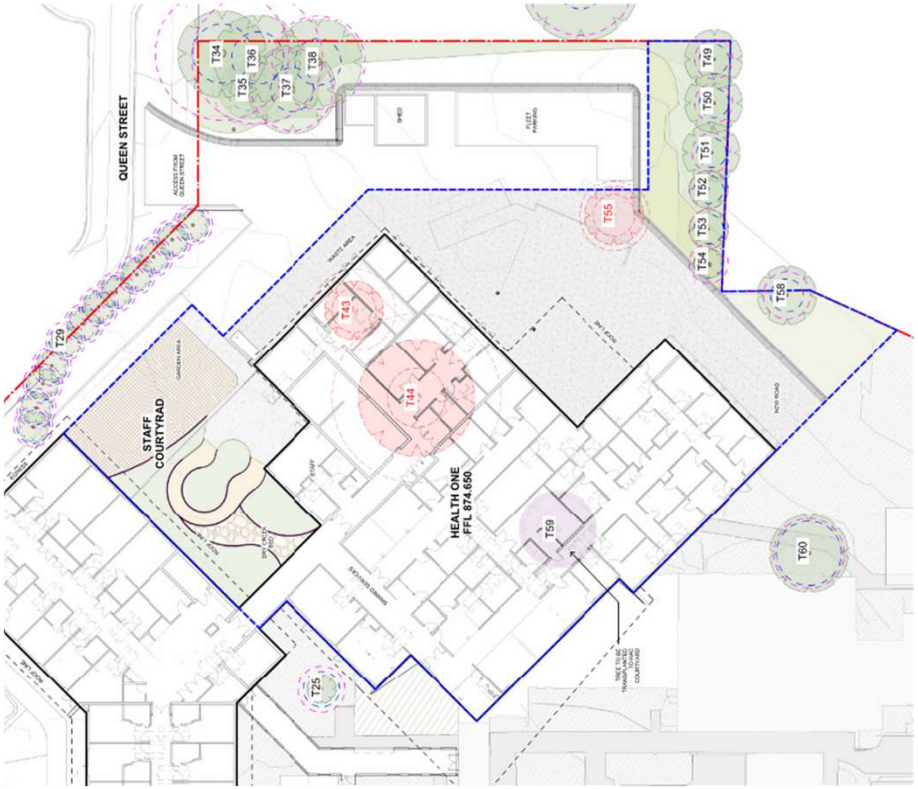
PALLIATIVE COURTYARD

The courtyard is designed to be enclosed by a combination of planting separate from Yarning circle and a few movable planters to improve privacy.

Coloured concrete ground plane is at the same grade as the hospital providing good access. The open spacing in the fence provide a level of privacy whilst allowing visual connection to the adjacent planting areas. Natural element and colour palette to provide a sense of nature with a sense of seasonality and calming feeling.

There is gate access to the path network allowing for visitors and patients staying in the palliative care unit secondary access to the room without the need of walking through the whole hospital.

6.5 LANDSCAPE DESIGN – STAGE 2



STAGE 2 TREE MANAGEMENT PLAN

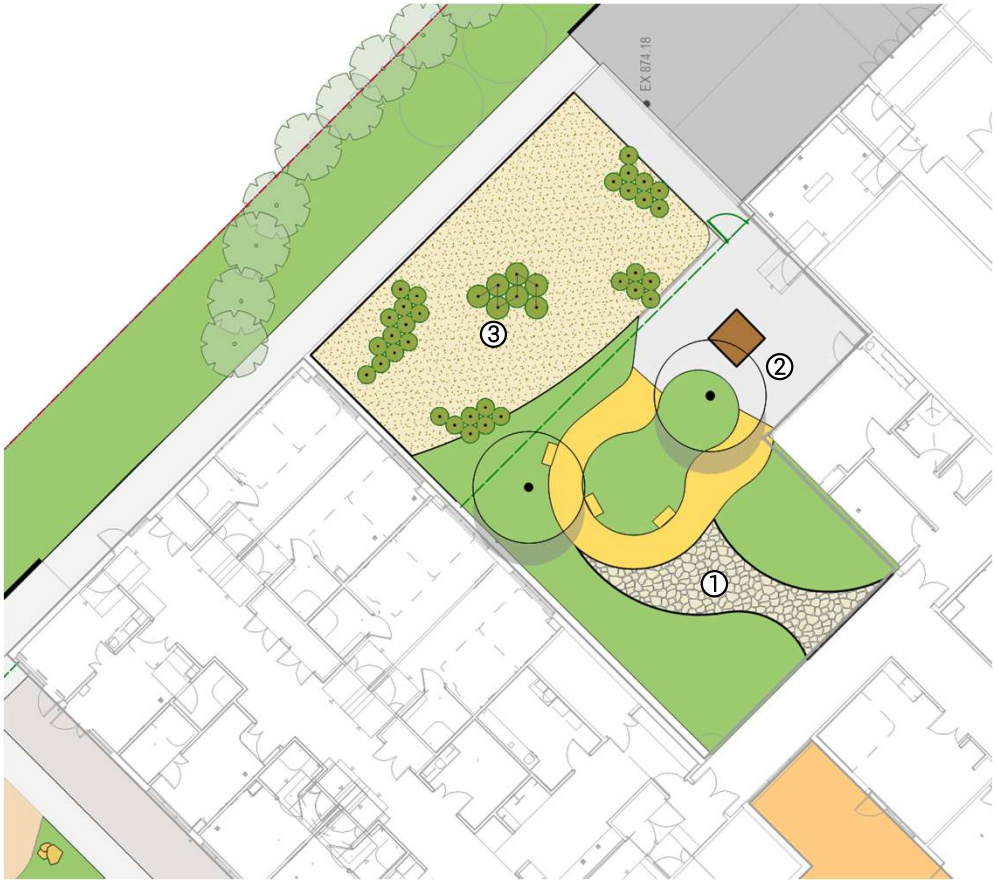
STAGE 2 SITE PLAN

LEGEND

- BOUNDARY
- STAGE 1 EXTENT OF WORK
- EXISTING TREES TO BE RETAINED
- **TPZ** TREE PROTECTION ZONE **SRZ** STRUCTURAL ROOT ZONE
- EXISTING TREES TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED

SCALE: 1:200 A1

6.5.1 STAFF COURTYARD- STAGE 2



1. FEATURE DRY CREEK BED

2. STAFF BREAK OUT AREA

3. GRAVEL GARDEN

STAFF COURTYARD

The staff courtyard is designed to offer a serene and easily access area for staff to recharge and unwind.

The feature dry creek bed that offers seasonal water views, serving as a symbolic representation of the Belabula River that is significant to the community. The creek bed gracefully transitions from a dry state to a decomposed pathway, adding a textured element that extends the visual connection to the internal corridor.

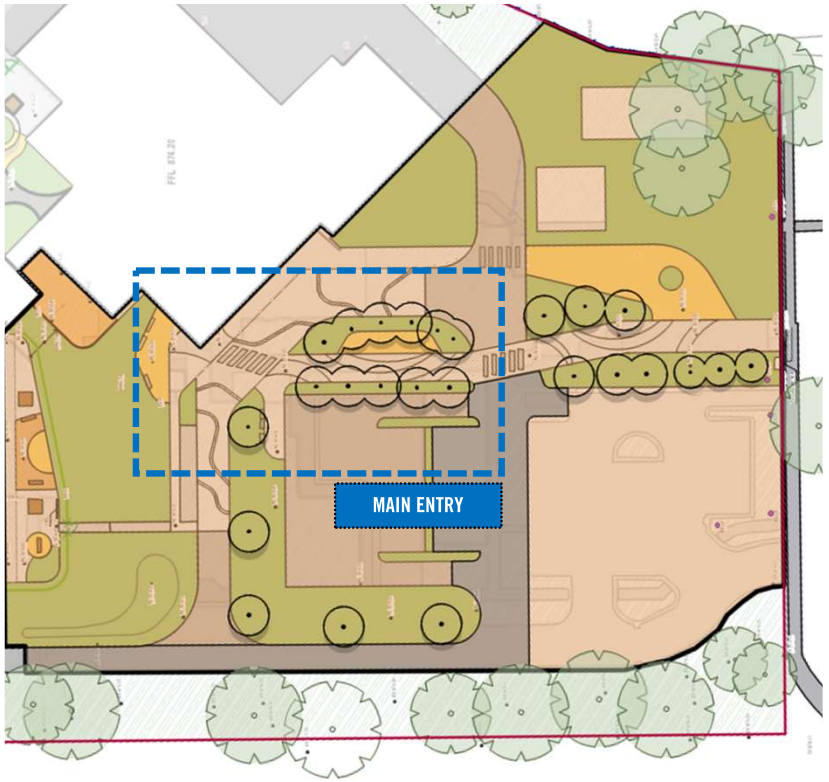
Additionally, the gravel garden is designed to provide a contemplative and meditative space.

6.6 LANDSCAPE DESIGN – STAGE 3

STAGE 3 TREE MANAGEMENT PLAN

LEGEND

- BOUNDARY
- STAGE 1 EXTENT OF WORK
- EXISTING TREES TO BE RETAINED
- TPZ TREE PROTECTION ZONE SRZ STRUCTURAL ROOT ZONE
- EXISTING TREES TO BE REMOVED
- EXISTING TREE TO BE TRANSPLANTED

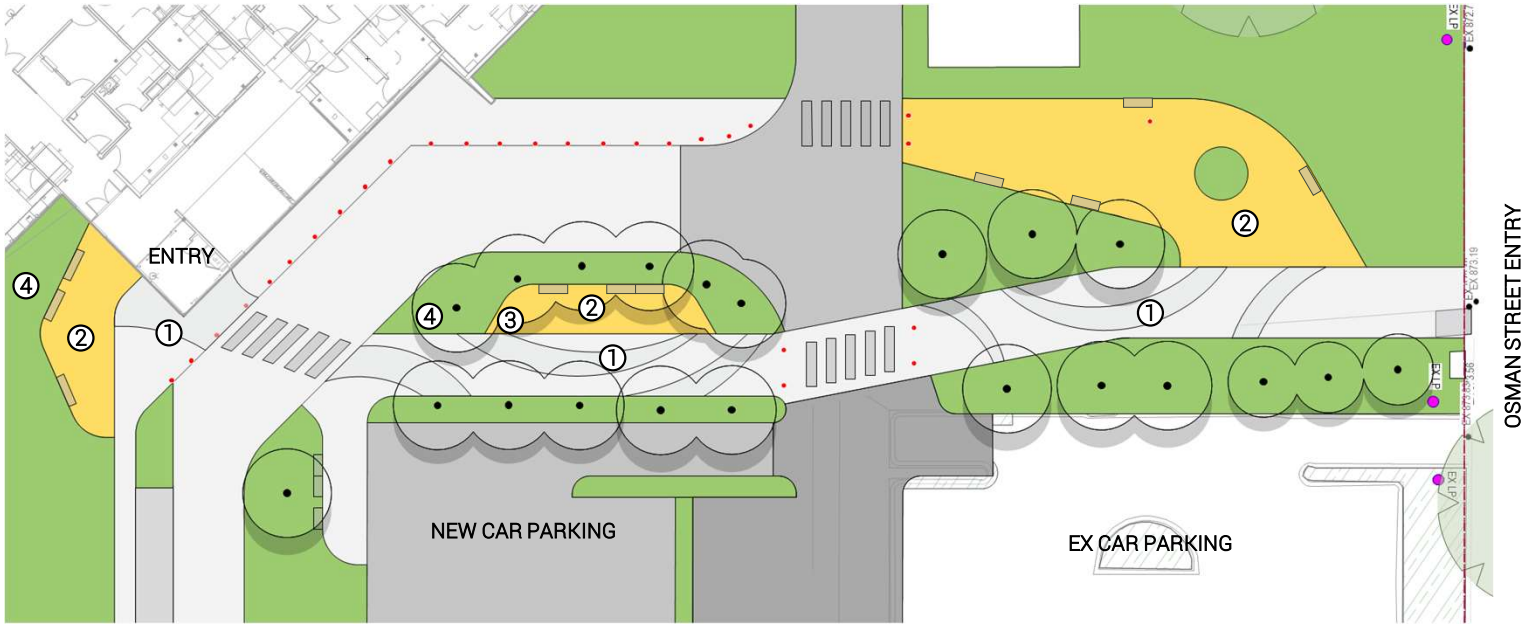


STAGE 3 SITE PLAN

1

SCALE: 1:200 A1

6.6.1 ENTRY GARDEN - STAGE 3



Entry Forecourt

The forecourt to the main entry is a well-designed space that incorporates a cultural interpretation in the paving pattern, endemic planting, and seating for visitors.

The entry path aims to provide an inviting sense and clear direction to the hospital, making patients and visitors feel at ease.

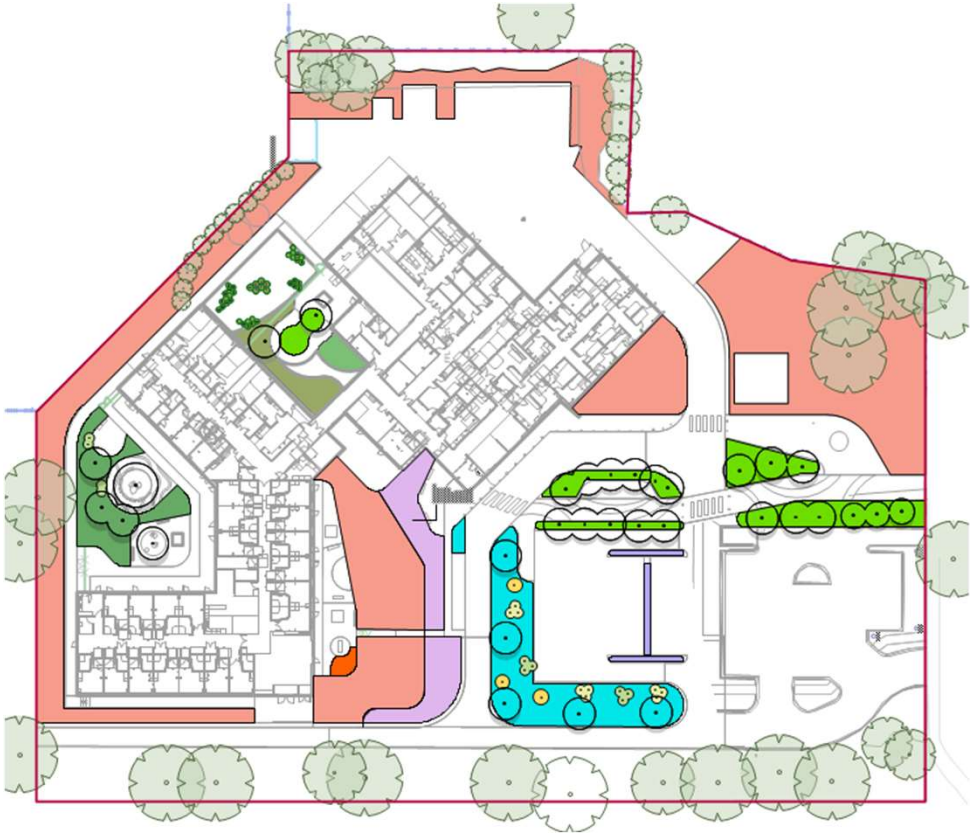
1. FEATURE PAVING GRAPHIC TO ENTRY

2. SOCIAL AND CULTURAL NODES

3. WELCOME TO COUNTRY SIGNAGE

4. ENTRY PLANTING

6.7 PLANTING DESIGN



LEGEND

- RAC AND STAFF COURYARD PLANTING
- EAST COURYARD PLANTING
- PLANTING MIX
- MAIN ENTRY PLANTING
- CAR PARKING PLANTING
- HYDROSEEDING MIX
- RAIN GARDEN PLANTING

PLANTING ZONE PLAN

DETAIL PLANTING PLAN REFER TO APPENDIX DRAWINGS

Planting Zones

The overall planting design utilizes native plants in its landscaping to create a sustainable and ecologically responsible environment.

The selection of native plants is based on their ability to thrive in the local climate and soil conditions, reducing the need for excessive watering and fertilization. Additionally, the use of native plants supports the preservation of the local ecosystem and provides a habitat for native wildlife. The native plants are also chosen for their aesthetic qualities, creating a natural and visually appealing landscape that is well-suited to the hospital's surroundings.

- Feature planting is prioritized at main entry and courtyard spaces
- Rain garden capture runoff
- Endemic planting chosen to transition into surrounding landscape
- Native trees specified across whole of site
- Cultural use planting is situated around the yarning circle and courtyards

SITE WIDE PLANTING SCHEDULE

ID	Latin Name	Common Name	Mature Height	Mature Spread	Pot Size	Quantity
TREES						
EUCbri(b)	Eucalyptus bridgesiana	Apple Box	15 - 20m	6 - 10m	75L	6
EUCbri(c)	Eucalyptus bridgesiana	Apple Box	15 - 20m	6 - 10m	45L	2
EUCdiv(b)	Eucalyptus dives	Broad-leaved Peppermint	10 - 15m	6 - 10m	75L	6
EUCgon(b)	Eucalyptus goniocalyx	Mountain gum	15 - 20m	10 - 15m	75L	9
EUCmac(a)	Eucalyptus macrorhyncha	Red Stringybark	15 - 20m	6 - 10m	75L	7
EUCmel(b)	Eucalyptus melliodora	Yellow Box	20 - 25m	10 - 15m	75L	2
					TOTAL	32
MASS PLANTING						
AJUaus(a)	Ajuga australis	Australian Bugle	0.5m	1m	140mm	109
ARIram(b)	Aristida ramosa	Purple Wiregrass	1.2m	0.5m	Tubestock	98
AUSsca	Austrostipa scabra	Speargrass	0.6m	0.3m	Tubestock	152
BRAmul(a)	Brachyscome multifida	Cut Leaf Daisy	0.2 - 0.3m	0.4 - 0.5m	140mm	64
BRAmul(b)	Brachyscome multifida	Cut Leaf Daisy	0.2 - 0.3m	0.4 - 0.5m	Tubestock	119
CARapp(b)	Carex appressa	Tall Sedge	0.9 - 1.5m	0.3 - 0.6m	tube	34
CHRapi(a)	Chrysocephalum apiculatum	Yellow Buttons	0.3m	0.5m	140mm	71
CORgla(a)	Correa glabra	Rock Correa	2m	2m	45L	6
CORgla(b)	Correa glabra	Rock Correa	2m	2m	200mm	27
DICcri(a)	Dichelachne crinita	Longhair Plume Grass	1.2m	1m	200mm	18
DICcri(b)	Dichelachne crinita	Longhair Plume Grass	1.2m	1m	Tubestock	31
DICrep(b)	Dichondra repens	Kidney Weed	0.1m	1m	Tubestock	42
DODvis(a)	Dodonaea viscosa	Sticky Hop Bush	2 - 3m	2m	45L	9
EINnut	Einadia nutans	Climbing Saltbush	0.3m	1m	150mm	127
FICnod(b)	Ficina nodosa	Knobby Club Rush	0.8 - 1m	0.6 - 0.8m	Tube	34
HIBobt(a)	Hibbertia obtusifolia	Hoary Guinea Flower	0.4m	1m	140mm	55
HIBobt(b)	Hibbertia obtusifolia	Hoary Guinea Flower	0.4m	1m	Tubestock	80
INDaus(a)	Indigofera australis	Australian Indigo	1 - 2m	1 - 2m	45L	6
INDaus(b)	Indigofera australis	Australian Indigo	1 - 2m	1 - 2m	200mm	25
JUNusi(b)	Juncus usitatus	Common Rush	0.5 - 0.6m	0.6m	tube	34
LEPpol(a)	Leptospermum polygafolium	Yellow Tea Tree	3m	3m	45L	3
LEPpol(b)	Leptospermum polygafolium	Yellow Tea Tree	3m	3m	200mm	15
LOMmul(a)	Lomandra multiflora	Many-flowered Mat-rush	0.4m	0.5m	140mm	39
LOMmul(b)	Lomandra multiflora	Many-flowered Mat-rush	0.4m	0.5m	Tubestock	243
MAGgra(b)	Magnolia grandiflora	Southern Magnolia	15 - 20m	15 - 20m	200L	132
OZOdio(b)	Ozothamnus diosmifolius	Rice Flower	3 - 5m	1.2 - 2.0m	200mm	49
POAsie(a)	Poa sieberiana	Grey Tussock Grass	1m	0.6m	140mm	16
RANlap(a)	Ranunculus lappaceus	Common Buttercup	0.4m	0.4m	140mm	119
RYTrac(b)	Rytidosperma racemosum	Wallaby Grass	0.8m	0.4m	Tubestock	248
THEaus(b)	Themeda australis	Kangaroo Grass	0.9 - 1.5m	0.3 - 0.6m	Tubestock	242
WAHstr(a)	Wahlenbergia stricta	Tall Bluebell	0.5m	0.4m	140mm	124
WAHstr(b)	Wahlenbergia stricta	Tall Bluebell	0.5m	0.4m	tube	36

6.8 LANDSCAPE SECTIONS

6.8.1 LANDSCAPE SECTIONS – STAGE 1

The landscape sections provide a high-level overview of the grade changes and landscape treatments.

The intended design for Blayney MPS is to ensure a naturalistic aesthetic and use natural materials where appropriate.

Landscape works look to take advantage of surface runoff for passive irrigation. Where achievable batters are to use large stones and boulders minimizing these use of formal retaining walls.

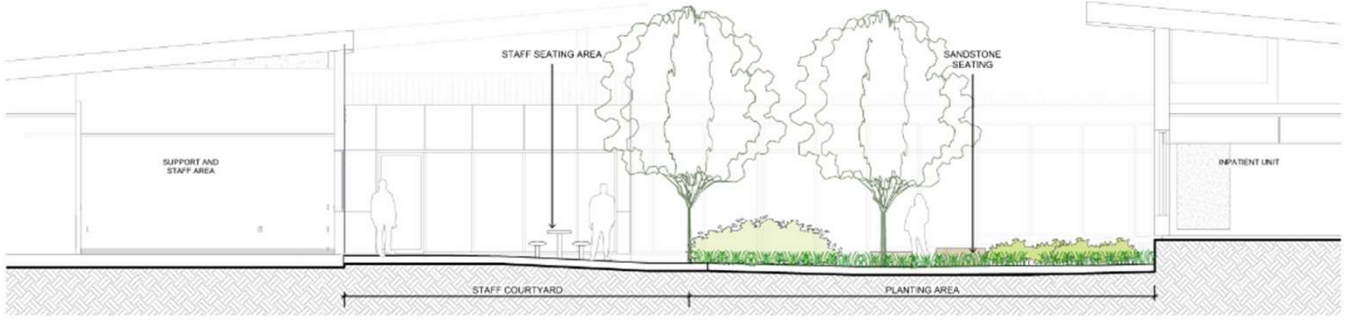
A Section A - RAC Courtyard
1 : 50

B Section B - RAC Courtyard
1 : 50

Key plan

6.8.2 LANDSCAPE SECTIONS – STAGE 2

Key plan

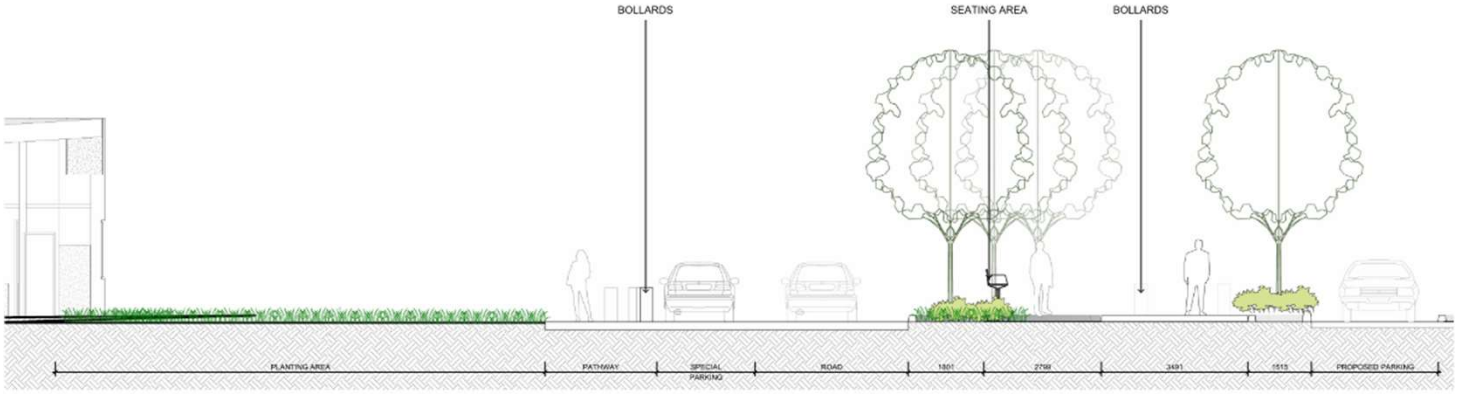


A Section A - Staff Courtyard
1 : 50

B Section B - Staff Courtyard
1 : 50

6.8.3 LANDSCAPE SECTIONS – STAGE 3

A Section A -Inpatient Courtyard
1 : 50



B Section B - Entry Area
1 : 50

Key plan

7.0 INFRASTRUCTURE REVIEW

7.1 BCA

The proposed development will be designed and certified in accordance with the National Construction Code.

BCA Classification: Class 9a (healthcare including administration, ambulatory care and back of house)

Class 10a (outbuildings – sprinkler pumproom, main switchboard and generator room, garden shed, dirty workshop and 3x fleet vehicle parking)

Rise in Storeys: 1 (one)

Storeys Contained: 1 (one)

Type of Construction: Type C Construction

Importance Level (Structural): 4

Sprinkler Protected Throughout: Yes

Effective Height: Single storey

Floor Area: 2,700m2

Max. Fire Compartment Size: Non-patient care and class 6 - 5,000m2 & 30,000m3 Patient care - 2,000m2 (they will generally be 1,000m2 to suit egress)

Climate Zone: Zone 7

The BCA report comprises a summary of the key compliance issues identified under the clause-by-clause assessment.

7.2 STRUCTURAL

The Blayney MPS is a small rural health facility located in the Southern Sector of the Western NSW

The Blayney MPS will provide:

• Residential aged care accommodation providing care to aged care residents with high care needs including clients with dementia who have been assessed as suitable for an MPS. Blayney MPS also provides respite care for low and high care residents.

• Inpatient services that will provide low level acute care to patients including palliative care in line with the agreed role delineation.

• Emergency services including stabilisation and management in preparation for admission or transfer of care in line with level 1 role delineation.

• Imaging services including general x-ray with a visiting Radiographer onsite from the Cowra Health Service – two days a week.

• Western NSW LHD community health, outpatient / ambulatory services and Hospital in the Home (HiTH)

The redevelopment will be carried out in three stages:

• Stage 1: Construction of RAC (Retired Aged Care) Building and temporary connection back to the existing hospital building and MSB/Generator Room Building. Structural scope includes design of RAC building structure and MSB/Generator Room Building.

• Stage 2: Partial demolition of existing hospital building and construction of Health One Building, with temporary link to RAC.

• Stage 3: Demolition of remaining existing hospital buildings.

The proposed redevelopment comprises two single storey steel framed buildings (RAC and Health One) on shallow foundations comprising a stiffened raft slab. The foundations will be founded on residual clay layers and areas of fill where the existing ground level is below the new building level. Lateral stability is provided by steel bracing within the building walls and roof. The roof structure uses steel rafters rather than lightweight truss systems to ensure more ceiling space is available for services and equipment. The buildings will comprise a mixture of lightweight cladding, glazed panels and masonry stud veneer.

7.3 CIVIL

Based on the geotechnical investigation report, groundwater was found 0.85m below ground level at BH15 at the south-western corner of the development area, with groundwater seepage encountered during or on completion of various boreholes, ranging from depths between 0.85m to 1.4m.

The subject site of Blayney Hospital has three main sub-catchments discharging to three existing discharge points. Two of the discharge points are in Osman St and one discharge point to Queens St existing drainage system Stormwater runoff from the subject site discharging into Osman Street and Queen Street existing drainage systems is conveyed via the existing drainage pit and pipe systems to Stillingfleet Street existing drainage systems. This then discharges into a wetland located at the intersection of Stillingfleet Street and Lower Farm Street for detention and treatment before ultimately discharging to Belubula River.

The stormwater drainage strategy for the proposed development will utilise the existing Council stormwater drainage systems to carry runoff from the site to the existing wetlands for detention and water qualitytreatment at Stillingfleet St and Lower Farm St. The proposed drainage strategy is to install raingardens in the proposed carpark area of the hospital site to treat runoff (from carpark only) and provide two 10,000L rainwater tanks for stormwater harvesting and irrigation reuse of landscape areas. The provision of rainwater tanks and raingarden/biorention trench for the new carpark endeavours to enhance the use of water sensitive urban design elements and reduce pollutant loads carried by the stormwater runoff from the hospital site to the existing wetlands.

The pavement design of the access road and new car park recommendations for Blayney Hospital follows the assumption that the traffic volume is 200 vehicles per day with 20% of heavy vehicles for access road and 5% for car parks. This is based on the advice provided by SCT Consulting from the review of Clinical Service Plan, the Workforce Plan, and an estimate of staff, visitors, and patients utilising the hospital grounds.

7.4 ELECTRICAL + ICT + LIGHTING

All existing services will be replaced to serve the new hospital.

Electrical services infrastructure

• New 500kVA padmount substation

The proposed location for the kiosk substation is on the Osman Street boundary, which is outside the building footprint and enables Essential Energy maintenance staff access to their asset on a 24/7 basis without interruption to normal hospital activity. A new easement shall be created for the new substation. The location of the Essential Energy kiosk substation must be above the 1:100-year flood level.

• New emergency generator backup system

A new Emergency backup generator will be provided to support up to 100% of the new hospital's maximum demand with the automatic transfer switches for the essential/critical loads located within the new site main switchboard. The emergency backup generator will consist of one (1) 500kVA diesel generator. It is proposed that a complete containerized external generator with underbelly fuel tank and sound attenuation shall be provided adjacent to the site main switchboard.

• New Site Main Switchboard

A new site main switchboard will be established in closed proximity to the new 500kVA substation and adjacent to the new emergency generator as indicated in the drawing. The switchboard shall be in a 2-hour fire-rated room.

• New Hospital Main Switchboard

The proposed Hospital Main Switchboard shall be located at the back of the hospital main building. This board will have a direct supply connection from the Site Main Switchboard.

Hospital main electrical services

• Each fire compartment will be served by zone distribution boards as indicated on the drawings. Distribution switchboards will be in 2-hour smoke-sealed cupboards in accordance with the requirements of the NCC.

• Two new UPS systems are proposed to serve the following systems at the new hospital:

System 1 - ICT comms

System 2 - Specific Medical outlets for critical care areas

• A new 150kW photovoltaic system with a provision of 50kW will be provided for the new hospital.

• A new 4 x 22kW electric vehicle charging system will be provided for the new hospital.

ICT Services

• A new Telstra lead-in and Campus Distributor System will be established to serve the new hospital.

• The following services will be provided:

o Nurse Call

o Master clock System

o Wi-Fi: ceiling mounted dual data outlets will be provided for WAPs.

o MATV

o Health Wide Area Network (HWAN) Connection

o NBN

o A simplified MDF for Fail Safe Lines

Security Services

The security services scope of works for the new hospital shall include:

• Access Control

o The intention of the concept design for the ACID system is to provide a WLHD wide system, whilst providing Blayney Hospital with an appropriate "fit for purpose" system that has flexibility and can be expanded into the future.

• CCTV

o The intention of the design for the CCTV system is to provide a system that will provide Blayney Hospital with an appropriate CCTV platform that is expandable into the future and provides quality images (resolution) and is operationally sound and standardised across the LHD.

• Intercoms

o All new Intercoms shall be IP based video/audio devices and connected as part of the network (switch) to be located in the new Stage 1 communications room.

• Duress

o The use of dual button (under-desk mount) key reset duress buttons will be included in the new design.

7.5 MECHANICAL

• Heating, ventilation, and air conditioning (HVAC)

o HVAC will be provided by means of VRF (variable refrigerant flow) and split air conditioning systems. Outdoor condensing units will be located in north and south screened enclosures – north enclosure to serve Stage 2 part of the building and south enclosure to serve Stage 1 (RAC and IPU).

o The majority of systems will be heat recovery VRF systems, however heat pump VRF systems will also be utilised where required. Dedicated units will be provided for bedrooms. A negative flow room is provided in the IPU. There are some departures from Engineering Services Guidelines associated with the packaged air conditioning systems proposed and location of HVAC equipment in the ceiling/roof space, rather than in plantrooms. These are identified in the report.

• Building Management System (BMS)

o A BMS will be provided to enable control and monitoring of engineering systems, interfacing with proprietary air conditioning controls and generation of alarms at the hospital and remotely.

• Medical gases

o Medical Gases for the new building comprise piped medical air, oxygen, and suction. Oxygen and medical air will be fed from a gas bottle enclosure, each with automatic duty/standby changeover modules. The new suction system will include duty and standby vacuum pump assembly in an adjacent plantroom.

7.6 FIRE

The fire services scope will consist of the following systems:

• Automatic fire detection and alarm system

o An automatic fire detection system shall be provided throughout the new hospital building in accordance with the relevant requirements of the BCA 2022 and AS 1670.1:2018.

• Emergency Warning and Intercom System (EWIS)

o An Emergency Warning and Intercom System shall be provided throughout the new hospital building in accordance with the relevant requirements of the BCA 2022 and AS 1670.4:2018

• Automatic fire sprinkler system

o An automatic fire sprinkler system shall be provided to protect the building in accordance with the relevant requirements of the BCA 2022 and AS 2118.1:2017.

• Fire hose reels

o Fire hose reels throughout the building in accordance with the relevant requirements of the BCA 2022 and AS 2441:2005.

• Fire hydrant system

o The existing fire hydrant system shall be replaced to ensure compliant fire hydrant coverage is achieved to all portions of the new building in accordance with the relevant requirements of the BCA 2022 and AS 2419.1:2021.

• Portable fire extinguishers and fire blankets

o Portable fire extinguishers and fire blankets shall be provided throughout the ne hospital building in accordance with the relevant requirements of the BCA 2022 and AS 2444:2001

7.7 HYDRAULIC

The Hydraulic Services scope of new works shall address the following design aspects:

• Sanitary drainage & plumbing

o New sanitary drains will be constructed to the requirements of AS3500.2 2022 and Health Infrastructure requirements.

• Roof water plumbing and drainage, Rain Water Harvesting

o New roof and stormwater drainage will be constructed to the requirements of AS3500.3.2018 and Health Infrastructure requirements. Roof water plumbing from new building will be designed to discharge the 1.20/year rainfall intensity with eaves gutter overflows to cater for surcharge and blocked outlets at maximum flow.

• Domestic potable cold water services

o New domestic water supply will be constructed to the requirements of AS3500.1.2018 and Health Infrastructure requirements. The water supply will extend from the existing Central Tablelands Water 200mm water main in Martha Street.

• Domestic potable hot/warm water services

o New domestic hot and warm water supply will be constructed to the requirements of AS3500.4:2018 and Health Infrastructure requirements. The new hot water units will incorporate a Rheem heat pump assembly.

• Fire hose reels

o The fire hose for the new development will be placed in positions compliant with the requirements of BCA/NCC 2019 and AS2441:2005. Fire hose reels are to be placed generally within 4m of required exits to provide full coverage to the

7.8 TRAFFIC

The Blayney Health Service (BHS) is a small rural health facility located in the Southern Sector of the Western NSW Local Health District (LHD). It is the first line health provider for people within the Blayney catchment and is located in the Blayney Local Government Area (LGA). Major redevelopment of the facility is proposed to meet the current and projected demand for services.

Existing conditions

BHS has limited public transport and cycling facilities, and all user groups at the hospital are assumed to drive. Access to the site is mainly off Osman Street, although there is also a single-lane driveway that connects to the Blayney Ambulance station to the west that can be used by NSW Ambulance.

Aside from access for cars and ambulances, BHS requires Heavy Rigid Vehicle (HRV) access so that servicing can be completed, including waste disposal, linen, medical store and food deliveries. The fire brigade also requires HRV access to the booster hydrant assembly.

Not including fleet parking, long term parking supply available to BHS is 54 spaces, which includes on-street parking. This is sufficient to cater for the peak parking of 40 cars, which is based on site observations and data obtained from the Clinical Services Plan and Work Force Plan. This Peak parking period occurs for around two hours around the middle of the day when afternoon and morning shift are both on site.

Proposed redevelopment

The redevelopment will be a complete rebuild and expansion of existing functions at Blayney Health Service, delivering new buildings, new internal roadways, consolidated back of house and ambulance access, and an expanded car park.

A new driveway for servicing will be established on Queen Street, providing access for HRVs and Bariatric Ambulances and separating heavy vehicles from typical patient and visitor traffic. The ambulance bay, booster hydrant assembly and the loading dock will all be consolidated in the back of house area to the north of the new build.

Excluding fleet parking, total long term parking supply at the end of the construction process will be 59 spaces. This new carparking arrangement will deliver two compliant accessible parking spaces in the vicinity of the main building entrance.

Traffic, transport and parking impact assessment

The redevelopment will lead to a marginal increase of approximately 12 vehicle trips during peak periods as a result of the increased staffing roster and expansion of facilities. These trips will have a negligible impact on the surrounding road network.

Peak parking demand once the new facility is fully operational is expected to be 55, which will be sufficiently catered for by the 59 parking spaces available to BHS. This parking demand means that the on-street parking supply will continue to be used to serve the hospital. This is an acceptable outcome given how close the on-street parking supply is to the main hospital entrance.

A Construction Traffic Management Plan (CTMP) would be developed prior to the start of construction. The CTMP would be prepared in consultation with Transport for NSW and Blayney Council and would seek to minimise traffic, transport and parking impacts during the construction stages of the project, especially while the health service remains operational. The CTMP would address aspects such as type of construction vehicles, construction transport routes, dilapidation surveys, traffic control plans, including detours and signage, and details of measures to minimize conflicts with other road users or users of the site.

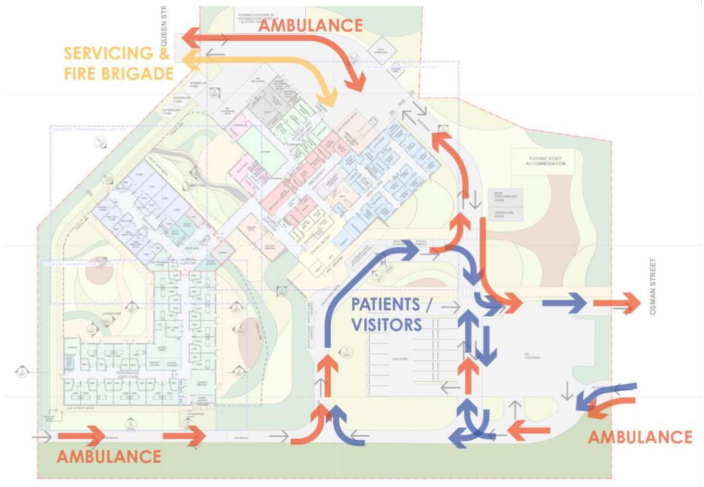


Figure 7.1 Key Traffic Circulaiton

7.9 ARBORIST

The arborist report relates to sixty (60) trees located on and adjoining the subject site and provides an evaluation of the likely impact to existing trees (within the subject site, adjoining the site within 5m of the boundaries and within Council street verge areas) as a result of the proposed development.

Based on the plans supplied and should the proposed works proceed in their current form, it is recommended that twenty-seven (27) trees be removed. Thirty-two (32) trees have been recommended to be retained and protected. One tree is considered to of significant sentimental value. As such, a recommendation has been made to transplant this tree elsewhere within the subject site.

Specific recommendations will need to be adopted to ensure root sensitive construction techniques and methodology are employed which mitigate any potential negative impacts to retained trees.

7.10 FLOOD

A flood study memorandum has been prepared to present results of flood modelling to calculate inundation extent, flood depth and flood level during Probable Maximum Flood (PMF) within proposed Blayney Hospital. This flooding investigation has been undertaken to address State Emergency Service (SES) concern regarding flood immunity of proposed Blayney Hospital during PMF. The memo presents flood mapping for peak Probable Maximum Precipitation (PMP) rainfall events, in accordance with the methodology outlined in Australian Rainfall and Runoff 2019.

A base cell size of 6.0 metres has been used for the hydraulic model extent during PMF events. The provided TUFLOW model has been run by GHD to examine performance of provided model components and compare the results with previous outputs.

Post development condition has been modelled using updated TUFLOW model (Build: 2020-10-AF). A proposed wall extending from northwestern side around the site towards southeastern corner of the site with a movable flood gate installed on the ambulance entrance road (southern boundary of the hospital site) has been included in the design (refer to Jacobs drawings) providing flood immunity during PMF events. The results of flood modelling for post development condition presented in the report, indicates that proposed buildings are not inundated during PMF events.

A long section of the water level at 0.2 metre offset from the wall has been plotted and is presented in the floor study.

7.11 ECOLOGIST

Introduction

Firebird ecoSultants Pty Ltd has been engaged by The APP Group to provide an ecological assessment for a proposed upgrade of the Blayney Multi-Purpose Service (hospital) building ('the proposal') at No. 3 Osman St, Blayney NSW 2799 ("the site"). The areas proposed for development have been located in managed areas of the site containing scattered groups of native and exotic trees, gardens and mown exotic grasses.

This assessment aims to recognise the relevant requirements of the Environmental Planning and Assessment Act 1979 (EP&A Act), Biodiversity Conservation Act 2016 (BC Act) and the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

A literature review and desktop research was combined with flora and fauna surveys, and a habitat assessment. Commonwealth, state and local government policies and guidelines formed the basis of project surveying and assessment methodology.

Flora

The development area is not mapped as containing biodiversity values, containing vegetation which has been highly modified from its original form. The site is predominantly cleared, containing scattered native trees, mown Common Couch grass (Elymus repens) and small gardens containing a mix of native and exotic plants. Native canopy trees proposed for removal include one (1) Eucalyptus melliodora (Yellow Box) tree adjacent to the site's northern boundary and one (1) Eucalyptus sp. in the south-west of the site. Groups of exotic planted species will also require removal from the central and northern portions of the site which include:

- Betula pendula (Silver Birch)
- Camellia japonica (Camellia)
- Chamaecyparis obtuse 'Crippsii' (Golden Hinoki Cypress)
- Cordyline australis (Cabbage Tree)
- Cupressus sempervirens (Mediterranean Cypress)
- Cupressus sempervirens (Swanes Golden Cypress)
- Fraxinus excelsior (European Ash)
- Malus floribunda (Crab Apple)
- Malus floribunda (Crab Apple)

Photinia serratifolia (Chinese Photinia)

• Prunus 'Royal Burgundy' (Ornamental Cherry)

• Robinia pseudoacacia 'Umbraculifera' (Mop To Robinia)

A grasslands and ground cover assessment has been undertaken within the site, this assessment determined that, in accordance with the OEH (2017) Interim Grasslands and other Groundcover Assessment Method, the site's grassland is regarded as non-native, and is classified as low conservation value.

Fauna

The development area may provide marginal habitat for potentially occurring threatened species that are adapted to open areas, such as woodland birds and microbats.

Impact Assessment

The proposed upgrade requires 529m2 of vegetation to be removed. This relatively small area contains one (1) Eucalyptus melliodora (Yellow Box) tree adjacent to the site's northern boundary and one (1) Eucalyptus sp. in the south-west of the site. Groups of exotic planted species will also require removal (refer to Tree Removal Plan in Figure 1-3).

Due to the historic clearing and current land use within the site and immediate area, the proposal would not impact vegetation connectivity. No hollow bearing trees or nests were found on the site.

Assessment under section 7.3 of the Biodiversity Conservation Act 2016 (NSW) (BC Act) determined that, with some mitigation efforts employed, no significant impacts are likely to occur to any threatened species or ecological communities as a result of the proposal. No relevant thresholds within the BC Act are triggered, hence the 5 Part Test supplied is considered sufficient for assessment purposes.

Consideration of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) revealed that impacts on Matters of National Environmental Significance (MNES) are considered unlikely to occur.

Section 5.2 outlines proposed mitigation measures. If these are adhered to, it is considered unlikely that the proposal would significantly impact any threatened species, populations or EECs. Overall, considering the disturbed area of the development footprint., the proposal is not expected to have any significant impacts on native biodiversity.

Recommendations

The following recommendations should be conditioned as part of any development consent;

• No removal of any hollows or nests;

• Areas of vegetation to be retained should be fenced off during construction;

• Site hygiene practices should be implemented during the development phase to avoid the spread of pathogens, including chytrid, Phytophthora and myrtle rust, as well as spread of weeds; and

• Best practice erosion and sedimentation controls should be put in place to limit offsite movement of materials into the surrounding areas.

7.12 ESD

The project is targeting compliance with the ESD objectives of the NSW HI Design Guidance Note No. 58 requirements.

ESD design initiatives (in accordance with the intent of DGN 058) have been developed in coordination with the various design consultants.

Key ESD initiatives incorporated in the project include:

• Full electrification of the site in line with Health Infrastructure's long-term electrification strategy and to reduce carbon footprint. The site currently uses LPG gas, and transitioning to 100% electrification will enable a future of carbon neutral operations and cheaper running costs.

• Consultation and Incorporation of Indigenous Design Elements

• Onsite Renewable Energy via Rooftop Solar Photovoltaics (PV) cells

• Outdoor green spaces and access to nature

• Enhancement of ecological values through green infrastructure and planting selection.

• Reduce building energy use and associated carbon emissions through passive design strategies and energy efficiency considerations

• Promote the use of low carbon transport model through the provision of services for EV charging

• Views to external planting for connection to nature, natural daylighting and glare control

• Design for Lighting comfort, Acoustic comfort and Thermal comfort

Please note that the quality of patient care remains the priority throughout with sustainable design strategies supporting the patient care and without detriment. The strategies will be considered within the project constraints such as budget, programme, site, infection control etc to ensure appropriate and sensible outcomes.

7.13 ACOUSTIC

This acoustic detailed design report outlines the acoustic, noise and vibration performance requirements and proposed design solutions for the Blayney MPS. It presents the acoustic performance requirements and criteria in compliance with relevant governing organisations and offers recommended noise mitigation strategies as well as detailed design requirements to ensure the new building construction meets the relevant codes and guidelines.

The detailed design report presents the four major acoustic considerations that are the basis of the development of the acoustic design for the Blayney MPS.

- Background noise levels generated by mechanical services within the difference spaces
- Level of sound insulation of the partitions separating the different areas within the hospital in order to achieve an appropriate level of speech privacy.
- Reverberation time generated in within non-clinical and common areas.
- Operational noise emissions to the surroundings.

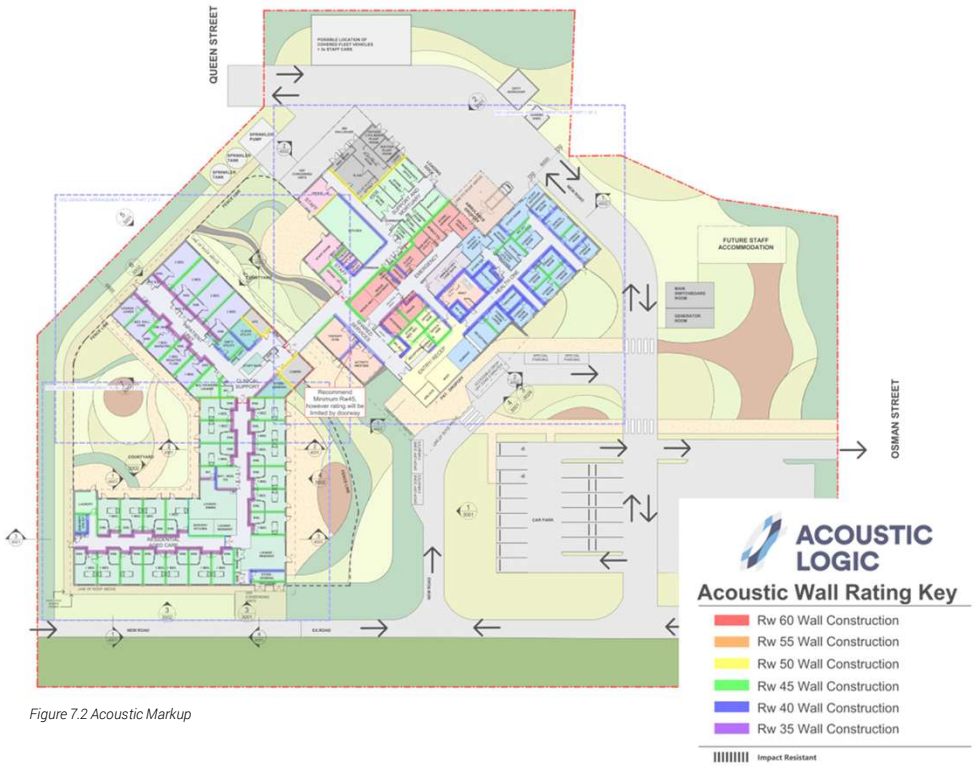


Figure 7.2 Acoustic Markup

7.14 KITCHEN DESIGN

Kitchen consultant, Cini Little have developed a detailed kitchen design in consultation with project user group. The design has informed the architectural layout and consultant coordination. An FFE list is developed based on the final kitchen design as well.

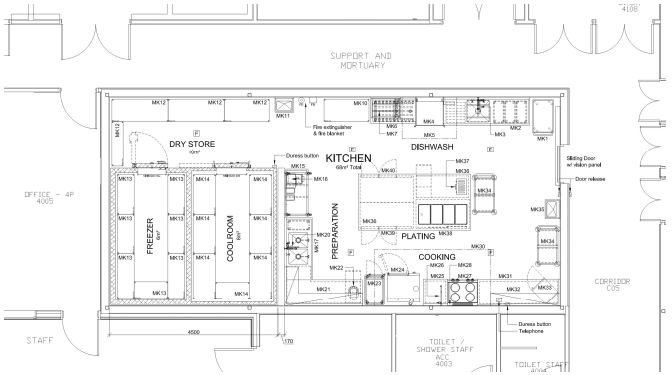


Figure 7.3: Kitchen Layout

NBRSARCHITECTURE.

SYDNEY: +61 2 9922 2344
ABN: 16002 247 565
NOMINATED ARCHITECT: Andrew Duffin
NSW Reg. 5602
WEBSITE: nbrsarchitecture.com