



NSW Ambulance



**Health
Infrastructure**

Kingscliff Ambulance Station

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Design Development Report



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1 Executive Summary

DJRD Architects were engaged by Health Infrastructure to undertake the design of a new ambulance station located in Kingscliff.

NSW Ambulance is a mobile health service with four key clinical areas of operation: emergency care, urgent/unscheduled care, community support and health support.

The NSW government is committed to enhancing the capacity of NSW Ambulance. In particular, rural health is a priority for the NSW government. The NSW Rural Health plan towards 2031 highlights the need to strengthen the capacity of rural health services to provide a more connected and seamless care. As part of addressing the rural health service, NSW Ambulance has identified a need to how it will deliver their services and identify the infrastructure required to support this service.

Consistent with the rest of the health system, there is a need to maintain and upgrade capital infrastructure for NSW Ambulance. Ambulance has already developed a Sydney Infrastructure Reform Strategy resulting in the SAMIS (Sydney Ambulance Metropolitan Infrastructure Strategy) program, and a similar approach for regional and rural NSW is to be adopted. This project has been named the Rural Ambulance Infrastructure Reconfiguration (RAIR) program.

24 upgraded, rebuilt or new regional and rural ambulance stations were delivered under the RAIR Stage 1 program – this represents the largest delivery of NSW Ambulance regional and rural infrastructure in the organisation's history. Construction is complete on 24 Stage 1 projects.

Following on from the success of Stage 1 of the program, the NSW Government has announced an additional \$100 million to deliver upgraded, rebuilt or entirely new NSW Ambulance stations in rural and regional NSW as part of Stage 2 of the program, and Kingscliff is part of Stage 2.

2 Kingscliff Ambulance Station

Kingscliff Ambulance Station has been designed in accordance with template guidelines titled "Rural Ambulance Station Facilities Design Guidelines Part A, B & C". In 2019 the Design Guidelines were updated to incorporate lessons learnt from previous stations and they comprise template designs for small, medium and large stations as well as modules for Education, Fleet and Zone/Sector.

2.1 Project Scope

The project scope of the Kingscliff ambulance station includes the construction of a new Medium Ambulance Station comprising of seven (7) internal ambulance parking spaces; One (1) internal wash bay; One (1) DOM parking bay; Seven (7) external staff parking spaces, including one accessible space; Ambulance administration and storage areas; Ambulance amenity facilities including lockers, toilets, kitchen and common room; two (2) sleep pods; Education/meeting room, and Gym Space Module.

3 Project Team

The consultant team are as follows;

Health Infrastructure	Client
NSW Ambulance	Client
Mace	Project Manager
DJRD	Architect
MBM	Cost management
Meinhardt-Bonacci	Structural and Civil
JHA	Mechanical, Electrical, ICT, Comms, ESD (Section J), Hydraulic and Acoustic
Geolink	Traffic
Geolink	Town Planner
Site Image	Landscape Architect
B&P Surveys	Survey
BCA Logic	BCA

3.1 Service Planning

Through a consultation process with NSW Ambulance, DJRD prepared a series of return briefs and schedules of accommodation for Kingscliff Ambulance Station. The final version of the return brief was issued in February 2022.

The station requirements are based off the medium station templates, as well as the principles of the RAIR program addressing service planning towards 2031.

3.2 Site Assessment and Due Diligence

A site was chosen and Due Diligence was carried out before Concept Design began. The Due Diligence can include desktop studies on services, contamination, and traffic and involve test fits on how the building can be located on the site. The test fits are based upon the Guidelines and “template” station designs.

3.3 Safety in Design

A Safety in Design risk matrix has been prepared for the project and will be reviewed with the design team. In compiling this report, the specific and unusual workplace hazards which have been identified by DJRD have been assessed, and control measures have been recommended to manage those risks. It has been assumed that the usual workplace hazards (i.e., those that are common to all buildings & construction sites) are already sufficiently managed through the engagement of competent and qualified contractors and subcontractors who work to industry standard practice throughout the duration of their engagement.

3.3.1 Risk Assessment Matrix

Determining the level of risk.

This matrix has been used to identify the level of risk and help to prioritise any control measures.

The **consequences** and **likelihood** for each of the identified hazards have been considered and the table has been used to obtain the risk level.

			Consequences				
			1 Insignificant Dealt with by in-house first aid, etc	2 Minor Medical help needed. Treatment by medical professional/hospital outpatient, etc	3 Moderate Significant non-permanent injury. Overnight hospitalisation (inpatient)	4 Major Extensive permanent injury (e.g. loss of finger/s) Extended hospitalisation	5 Catastrophic Death. Permanent disabling injury (e.g. blindness, loss of hand/s, quadriplegia)
Likelihood	5	Almost certain to occur in most circumstances	High (H)	High (H)	Extreme (X)	Extreme (X)	Extreme (X)
	4	Likely to occur normally	Moderate (M)	High (H)	High (H)	Extreme (X)	Extreme (X)
	3	Possible and likely to occur sometime	Moderate (M)	Moderate (M)	High (H)	High (H)	Extreme (X)
	2	Unlikely to occur but could happen	Low (L)	Moderate (M)	Moderate (M)	High (H)	High (H)
	1	May occur but only in rare and exceptional circumstances	Low (L)	Low (L)	Moderate (M)	Moderate (M)	High (H)

Figure 1 – risk assessment matrix

Risks relating to the building's construction phase include but are not limited to:

- Possible cutting of below ground services.
- Fire due to hot work on site causing injury and/or damage.
- Various potential contaminants in fill soils
- Release of contaminants onto site, health issue and delays

Risks relating the building when operational include but are not limited to:

- Collision between vehicles and building resulting in damage to and possible collapse of structure
- Disruption of traffic and collisions with pedestrians and disruption to services.
- Collision between ambulances and people/other vehicles causing permanent injury/death.
- Staff rushing to ambulances/Staff restocking of vehicles, movement of stretchers resulting in injury

4 Project User Groups

Project User Groups (PUG) for the Kingscliff Ambulance Station were held on Tuesday the 8th of June 2021 & Monday 14th February 2022. PUG consultation has focused on presenting the brief, overall layout and functional relationships of the proposed building, while sections, elevations and 3D views were also presented. From this discussion, feedback related to deliveries and common area layouts have been incorporated into the design.

5 Design Team Meetings

Weekly RAIR Design Team Meetings have been held online over the course of the project.

6 Design Statement

6.1 Site

Kingscliff is a coastal town just south of Tweed Heads in the Northern Rivers region of New South Wales. Situated within the new hospital development area of Tweed Shire Council, it had a population of approximately 6,392 in 2011. The Bundjalung people are the traditional custodians of Country Kingscliff is located on.

The proposed Kingscliff Ambulance Station site is located off Turnock Street, Kingscliff. Public facilities are currently located to the east side of the site and new hospital development proposals are underway around the western portions of the site.



Figure 2: Aerial view of site showing neighbouring buildings

6.2 Architectural Design

The proposed ambulance facility has been designed to meet the functional requirements of NSW Ambulance and to have a positive aesthetic impact on its context. Site analysis was carried out to determine the climatic, geographical, historical, legal, and infrastructural context of the site. These factors were taken into account during the design phase so that the proposed building could respond effectively to them.

COOLANGATTA AP LONG-TERM AVERAGES

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Mean Max (°C)	28.5	28.4	27.4	25.5	23.2	21.1	20.7	21.6	23.5	24.7	26.1	27.4	24.9
Mean Min (°C)	21.0	20.9	19.9	17.0	13.9	11.4	10.2	10.3	13.4	16.0	18.2	19.9	16.0
Mean Rain (mm)	164.9	175.9	198.1	160.8	130.2	134.6	72.3	57.9	39.3	89.1	121.0	151.4	149.7
Median Rain (mm)	115.2	124.0	144.1	117.6	134.6	90.6	66.4	44.4	20.5	68.6	126.4	132.8	109.2
Mean Rain Days	14.8	16.2	18.4	15.5	14.8	13.2	10.2	7.9	8.4	10.3	12.4	13.7	155.6

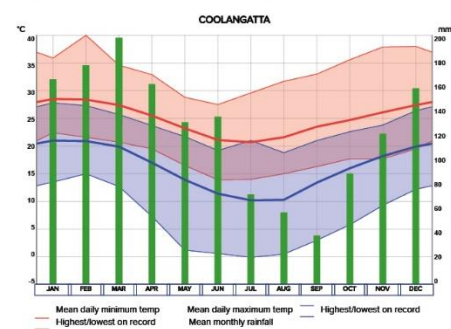
COOLANGATTA AP DAILY RECORDS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
High Max (°C)	35.9	30.0	34.6	32.9	28.8	27.5	29.6	31.7	33.0	35.6	37.9	38.0	40.0
Low Max (°C)	22.4	21.6	20.7	19.5	16.5	13.9	14.0	15.0	16.3	17.2	17.2	19.5	19.8
High Min (°C)	27.8	27.3	25.7	23.7	21.7	19.2	21.0	18.8	21.0	22.6	23.8	26.4	27.8
Low Min (°C)	13.5	15.0	12.7	7.3	1.2	0.8	0.1	0.5	3.0	5.8	9.3	12.2	-0.1
High Rain (mm)	205.6	200.6	212.8	238.4	214.3	369.0	143.6	70.8	116.8	135.6	207.4	166.0	368.0

COOLANGATTA AP MONTHLY RECORDS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
High Min. Max (°C)	30.1	30.6	28.7	27.1	25.1	22.4	22.0	24.0	25.6	26.6	27.7	29.2	25.9
Low Min. Max (°C)	26.5	26.9	25.3	24.2	22.0	19.8	19.1	20.0	21.9	22.5	24.0	25.3	23.7
High Min. Min (°C)	22.2	22.5	21.2	18.3	15.9	13.4	13.8	12.8	15.1	18.1	19.7	21.9	16.7
Low Min. Min (°C)	20.0	19.5	18.1	15.6	12.0	9.2	6.2	7.4	10.8	13.0	15.6	17.5	15.0
High Rain (mm)	529.6	702.2	546.8	644.6	380.6	512.8	203.2	203.6	189.2	438.6	358.8	534.8	2378.2
Low Rain (mm)	4.4	19.4	25.4	24.8	12.8	10.6	1.8	0.0	0.2	5.0	12.8	24.6	792.6

COOLANGATTA AP ANNUAL TEMPERATURES & RAINFALL



MARCH 20TH- 12PM SUNPATH



JUNE 21TH- 12PM SUNPATH

COOLANGATTA AP AVERAGE NUMBER OF DAYS WITH TEMPERATURES

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
≥ 40.0°C	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
≥ 35.0°C	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4
≥ 30.0°C	5.2	4.9	1.8	0.4	0.0	0.0	0.0	0.1	0.5	0.8	1.2	2.5	17.5
≤ 2.0°C	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.6
≤ 0.0°C	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1

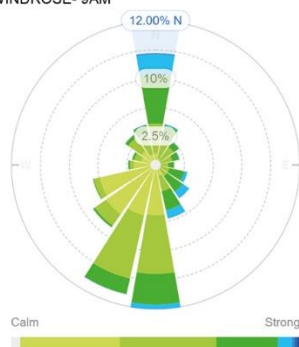
COOLANGATTA AP 'PER WEEK' VALUES (14TH/86TH PERCENTILES)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
High Max	29.8	29.8	28.6	26.9	24.7	23.0	22.4	23.2	25.1	26.2	27.5	29.0	28.1
Low Max	26.6	26.5	25.6	23.7	21.3	19.1	18.7	19.3	21.0	22.3	23.6	25.2	20.8
High Min	23.1	23.1	21.7	19.2	17.1	15.1	13.8	14.4	17.2	19.1	20.8	22.6	21.0
Low Min	18.8	18.8	17.7	14.9	10.4	6.8	5.6	6.3	9.3	13.0	15.2	17.0	10.0

COOLANGATTA AP DATA AVAILABILITY

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
Years of Minima	31	32	32	33	34	34	33	33	31	32	31	34	31.0
Earliest Entry	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983	1982	1982
Latest Entry	2021	2021	2021	2021	2021	2021	2021	2020	2020	2020	2020	2020	2021
Years of Maxima	32	32	33	33	33	33	32	32	32	32	32	34	31.0
Earliest Entry	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983	1982	1982
Latest Entry	2021	2021	2021	2021	2021	2021	2021	2020	2020	2020	2020	2020	2021
Years of Rainfall	36	36	36	36	36	37	36	36	37	37	35	37	36.0
Earliest Entry	1983	1983	1983	1983	1983	1983	1983	1983	1983	1983	1982	1982	1982
Latest Entry	2021	2021	2021	2021	2021	2021	2021	2020	2020	2020	2020	2021	2021

YEARLY WINDROSE- 9AM



SEPTEMBER 23RD- 12PM SUNPATH



DECEMBER 22ND- 12PM SUNPATH

6.2.1 Return Brief

Kingscliff Ambulance Station was designed to achieve the requirements of the Return Brief dated 25/02/22. The return brief is included in appendix 7.1

This return brief has been prepared to suit the targeted staffing capacity & outlined for year 2031 based on the following Reference Documents;

- a. Email correspondence from NSW Ambulance
- b. RAIR Staff Ratio Appendix - FTE vs Station Requirements

Outline of Requirements

Ambulance Station

To be typically based on the Rural Ambulance Station Facilities Design Guidelines / Revision L / Medium Station Template M-01 / 02.1AR1101 - modified to suit required FTE staff levels in accordance with RAIR Staff Ratio Appendices Spreadsheet V5

Staffing

Full Time Equivalent Staff	24	As per NSW Correspondence
DOM	1	

Provision for Staff

		As per RAIR Staff Ratio Appendix
Locker Room – provision for	30	Lockers (24 x 1.23 FTE)
Common Area Lounge – provision for	8	Staff
Common Area Dining – provision for	10	Staff
Admin Space (Peak by half) – provision for	3	staff

Equipment

		As per RAIR Staff Ratio Appendix
Computers – provision for	3	pcs in admin area
Basic Printer – provision for	1	Basic printer in admin area

Amenities Male

		As per RAIR Staff Ratio Appendix
WC	1	
Shower	1	
Change Cubicle	1	

Amenities Female

		As per RAIR Staff Ratio Appendix
WC	1	
Shower	1	
Change Cubicle	1	

Accessible Amenities

		As per RAIR Staff Ratio Appendix
Combined Accessible WC + Shower	1	in accordance with AS1428

Additional Modules

		As per RAIR Design Guidelines
Zone & Sector Management Module	1	Tier 1 – 1 x shared DOM office – 12m2 and 1 x 9m2 S/O office
Fleet Maintenance		Tier 1 as noted in Plant Room below
Sleeping Pod	2	Required 1 bed per pod
Education	1	Tier 2 – Approx. 30-40m2 Multi-purpose Tier 2 Education Class/Meeting Room
Gym Space Module	1	Approx. 12m2 – may be internal or external protected from the elements

Plant Room

To be typically based on the Rural Ambulance Station Facilities Design Guidelines / Revision L / Medium Station Template M-01 / 02.1AR1101 – modified to suit site as follows;
 1. to suit required # of parking bays as outlined on the RAIR Endorsement sheet
 2. to suit endorsed schedule of accommodation in approved Return Brief
 3. to suit site size & geometry

Internal Vehicles

		As per NSW Correspondence
Ambulance	7	Internal bays
Internal Wash Bay	1	
Fleet Maintenance Bay	Included	Tier 1
Total Internal Vehicles	(8) 7 ambulance bays + 1 wash bay	

External Vehicles (Covered)

		As per RAIR Design Guidelines
DOM Bay	1	
Total External (Covered) Vehicles	(1) 1 DOM bay	

Other Parking (Not Covered)

		Standard Car Parking Bay size: 5.4x2.4m
Accessible Parking Bay + Circulation Area	1	statutory requirement in accordance with AS2890.6
Parking bays	6	As per RAIR Staff Ratio Appendix
Total	(7) 1 acc. + 6 parking bays	

Ambulance Station					
1	x	3 staff	Admin		To suit required number of staff
1	x	30 m ²	Combined Medical Equipment Store		As per RAIR Staff Ratio Appendix
1	x	>7m ²	Comms Cupboard		To suit NSW ITC Reqs
1	x	4m ²	Cleaner's Sink / Store		
1	x	9m ²	Office		
1	x	12m ²	DOM Office		Shared Office
		-	Circulation		
Amenities					
1	x	8 staff	Common Room		To suit required number of staff
1	x	10 staff	Meals		To suit required number of staff
1	x	7m ²	Accessible WC with shower		
1	x	14 m ²	Male WC		
1	x	incl	Male Shower		
1	x	incl	Male Change		
1	x	14 m ²	Female WC		
1	x	incl	Female Shower		
1	x	incl	Female Change		
1	x	30lockers	Locker Room		To suit required number of lockers
1	x	11 m ²	Charge		
1	x	12m ²	Gym		
Bolt On Module: Sleeping Pods					
1	x	7m ²	Sleeping Pod		
1	x	7m ²	Sleeping Pod		
Bolt On Module: Education Tier 2					
1	x	30m ²	Multi-purpose Classroom		
Vehicle Plant Room					
1	x	Variable	Plant Room		Drive through configuration to suit 7 SEV
1	x	Variable	Internal Wash Bay		
1	x	15m ²	Delivery		
1	x	4m ²	Main Switchboard		
1	x	2m ²	Oil Separator		
Associated External Spaces					
1	x	28m ²	Outdoor Area		Adjacent to common room
1	x	variable	Services		Tbc with consultants
1	x	6m ²	Waste		Confirm if Bolton Modules require this to be larger
Parking Allocation Covered					
1	x		DOM Bay		2.7x5.4m Large Car Park
Parking Allocation Not Covered					
1	x		Accessible Parking Bay + Circulation		Standard Car Parking Bay size: 5.4x2.4m
6	x		Parking Bays – Ambulance Station		Standard Car Parking Bay size: 5.4x2.4m

2. Outline of Requirements

This return brief has been prepared to suit the targeted staffing capacity & outlined for year 2031 based on the following Reference Documents;

- c. Email correspondence from NSW Ambulance
- d. RAIR Staff Ratio Appendix - FTE vs Station Requirements

RAIR Kingscliff Ambulance Station has a site area of approximately 3526m² and includes;

1. The construction of a new Medium Ambulance Station comprising of seven (7) internal ambulance parking spaces; One (1) internal wash bay; One (1) DOM parking bay; Seven (7) external staff parking spaces, including one accessible space; Ambulance administration and storage areas; Ambulance amenity facilities including lockers, toilets, kitchen and common room; two (2) sleep pods; Education/meeting room, and Gym Space Module.

Site Planning & Context:

The site has an irregular footprint with approximately 66m eastern street frontage. Ambulance Vehicles enter the site from Turnock Street with public vehicles entering from service road east. Car parking is provided along the lower level's southern boundary. The building is oriented with the plant room exit facing south, and the administration and sleeping pod areas of the station located along the Eastern portion of the site. The overall width of the drive through plant room has been calculated to allow sufficient clearance behind ambulance parking spaces and to provide sufficient space for the loading/unloading of stretchers and other equipment.

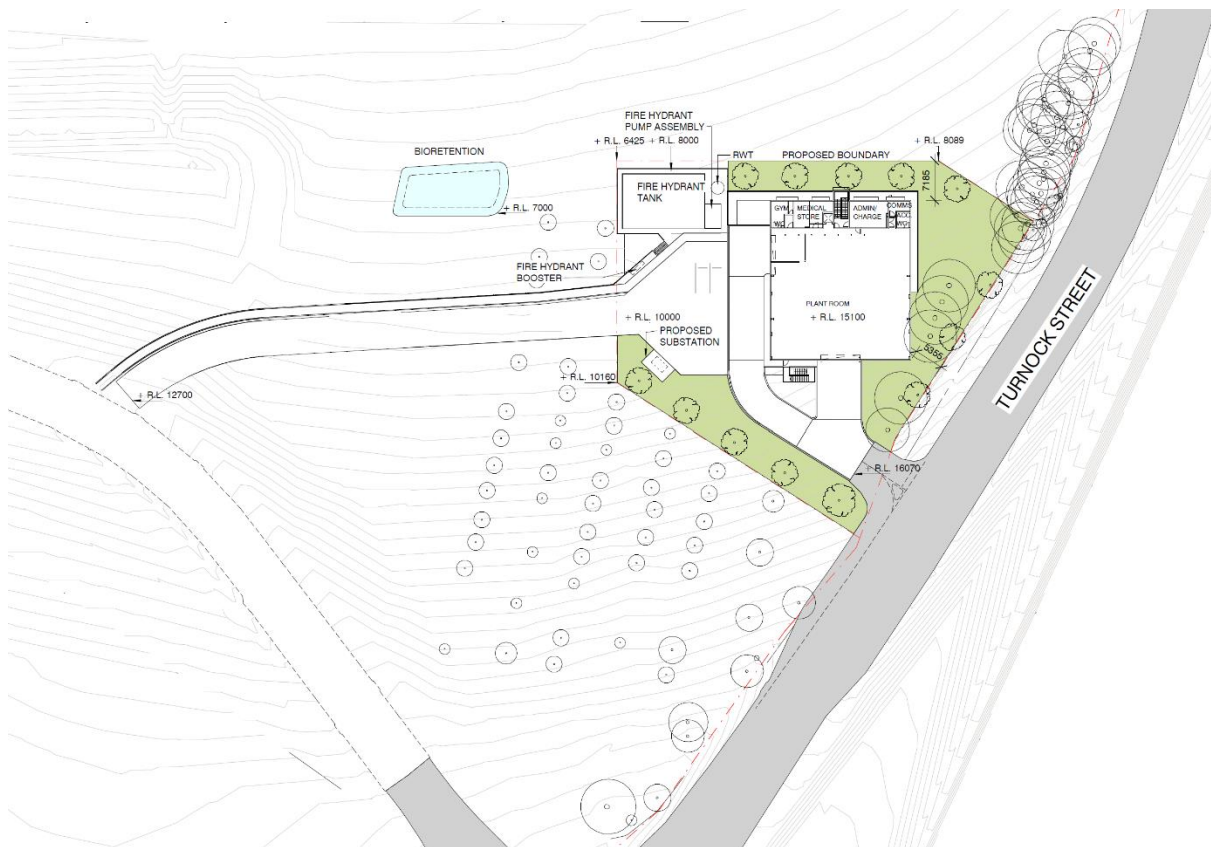


Figure 3: Site Plan

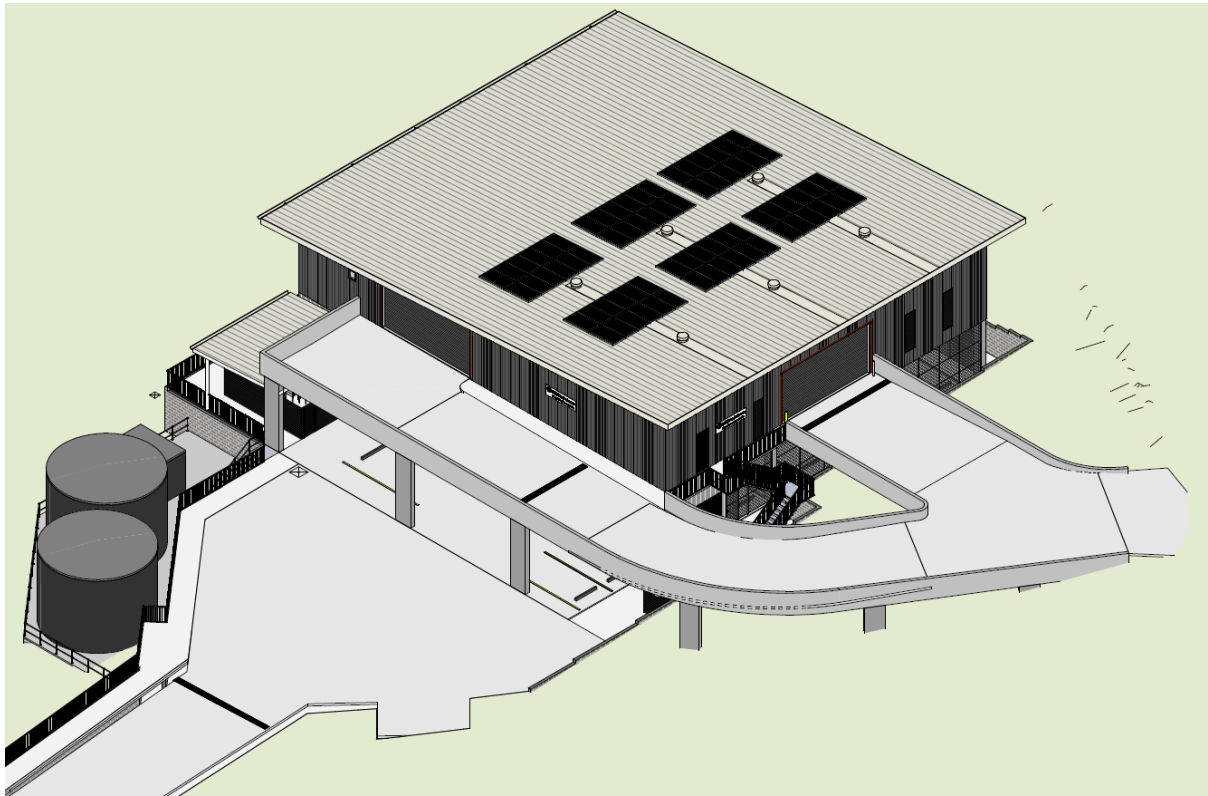


Figure 4: Exterior view

6.2.2 Architecture

The building will be used by ambulance service paramedics and administration staff. The building is not intended for public access and it is not anticipated that there will be a high number of visitors to the building. The building has been developed in conjunction with other new RAIR projects. Its overall form, material selection and aesthetics will be similar to the other RAIR stations, providing a recognisable and consistent approach for new RAIR buildings. This is considered important to reflect the cohesive nature of the ambulance service and provide staff with workplaces that do not differ significantly from one RAIR station to another. Selection of the colour of materials will be used appropriately with consideration given to the site context.

The building height and form has been simplified to maintain an efficient building shape. The roof is a skillion roof and kept to a low pitch of approximately 3.5 degrees to further refine the building form. Taking into account the interior minimum height requirements and the internal clear spans of the office and plant areas an efficient steel portal frame has been incorporated as the primary structure for the building envelope. Internal walls are non-load bearing to allow for future flexibility and internal rearrangement of spaces. The ambulance station offices and amenities have been located to the west of the plant room. Office, meeting, sleep pods, as well as the common and dining rooms have been provided windows that offer natural light and outlook.



Figure 5: Exterior Perspective

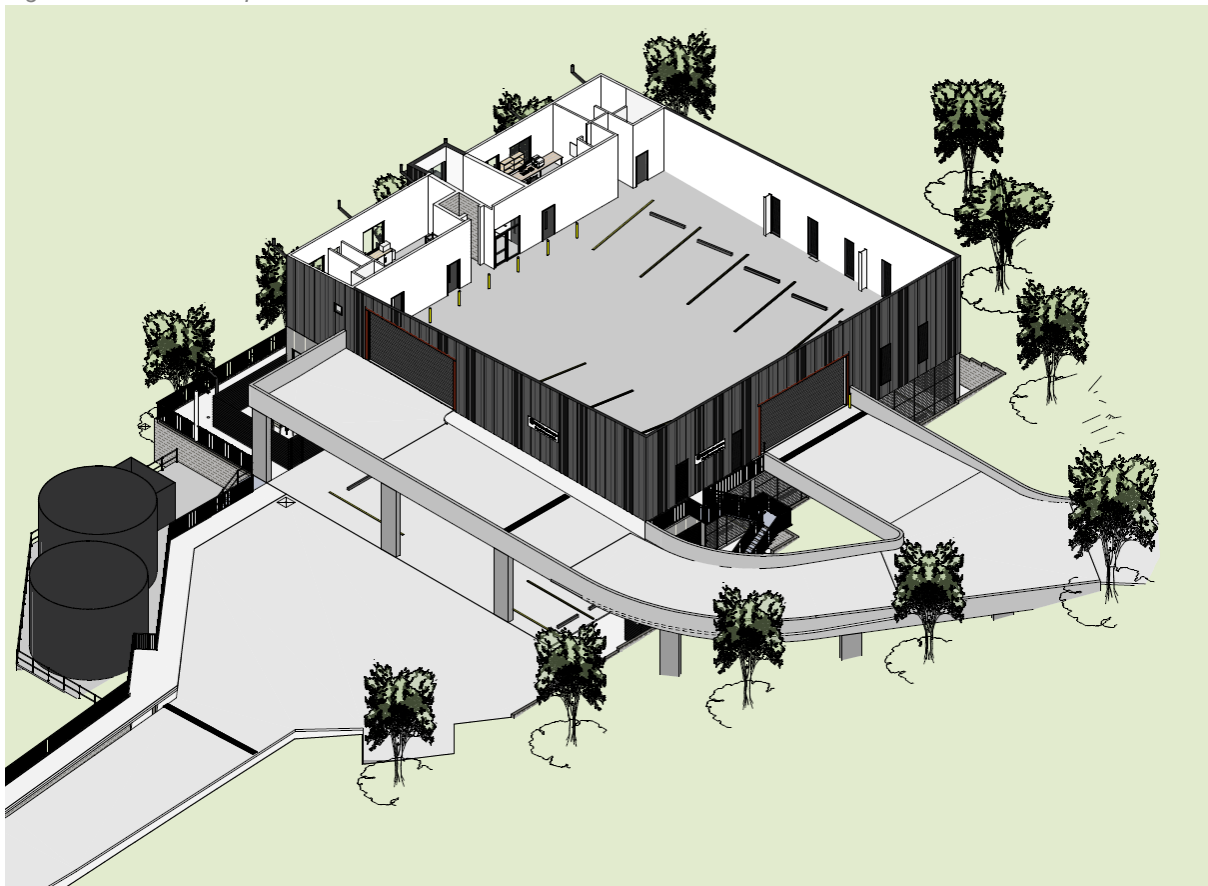


Figure 6: Axonometric

6.3 ESD

A Section J – Energy Efficiency Report is being prepared by JHA for the proposed construction of Kingscliff Ambulance Station and it outlines thermal insulation construction requirements the building.

Building Classification:

- Class 3 (sleeping pods), class 5 (administration/amenities/meeting/communal ancillary areas) and class 7a (plant room/carpark) in Climate zone 2

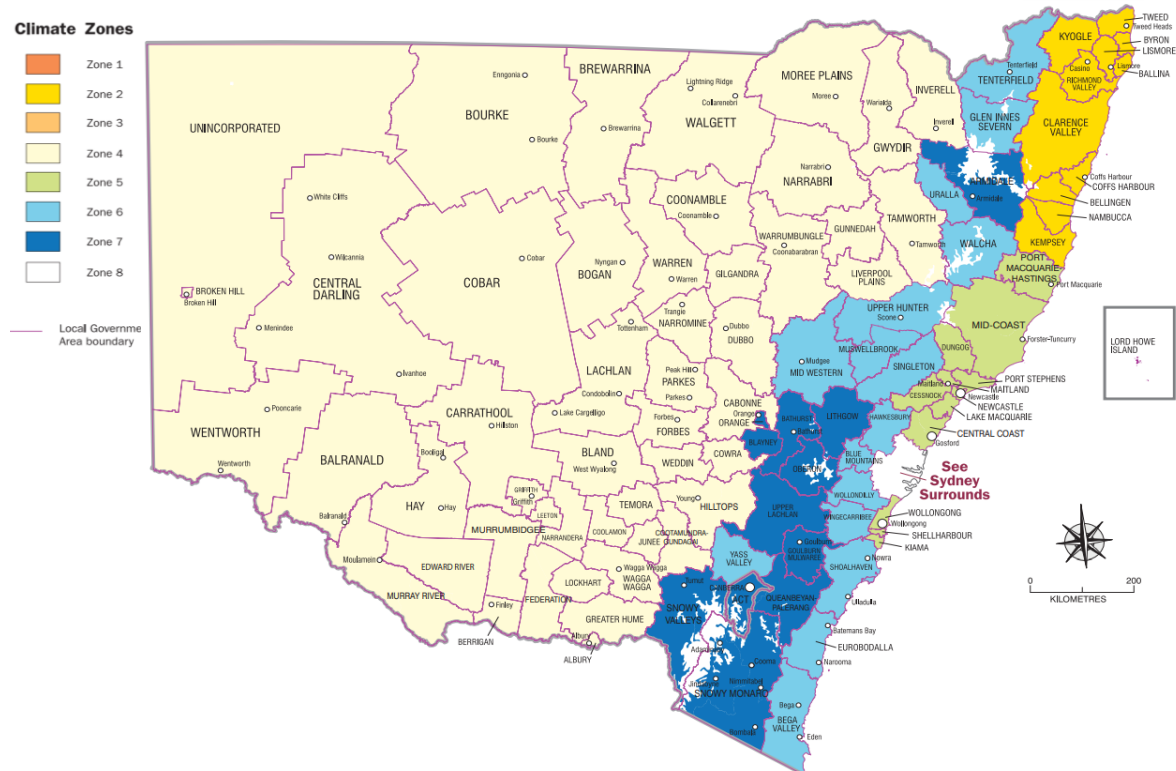


Figure 7: BCA extract: NSW Climate Zone Map

Landscape Architecture

Refer to appendix 7.5 for the landscape design.

A preliminary landscape design for the RAIR Kingscliff site has been developed by Site Image Landscape Architects. The planting design for RAIR Kingscliff embodies a low maintenance and sustainable approach in terms of species choices. Planting has been proposed along the street elevation to supplement the existing trees and soften the elevations.

The planting strategy incorporates trees and low planting at the property entry, while maintaining as many existing trees as possible around other boundaries.

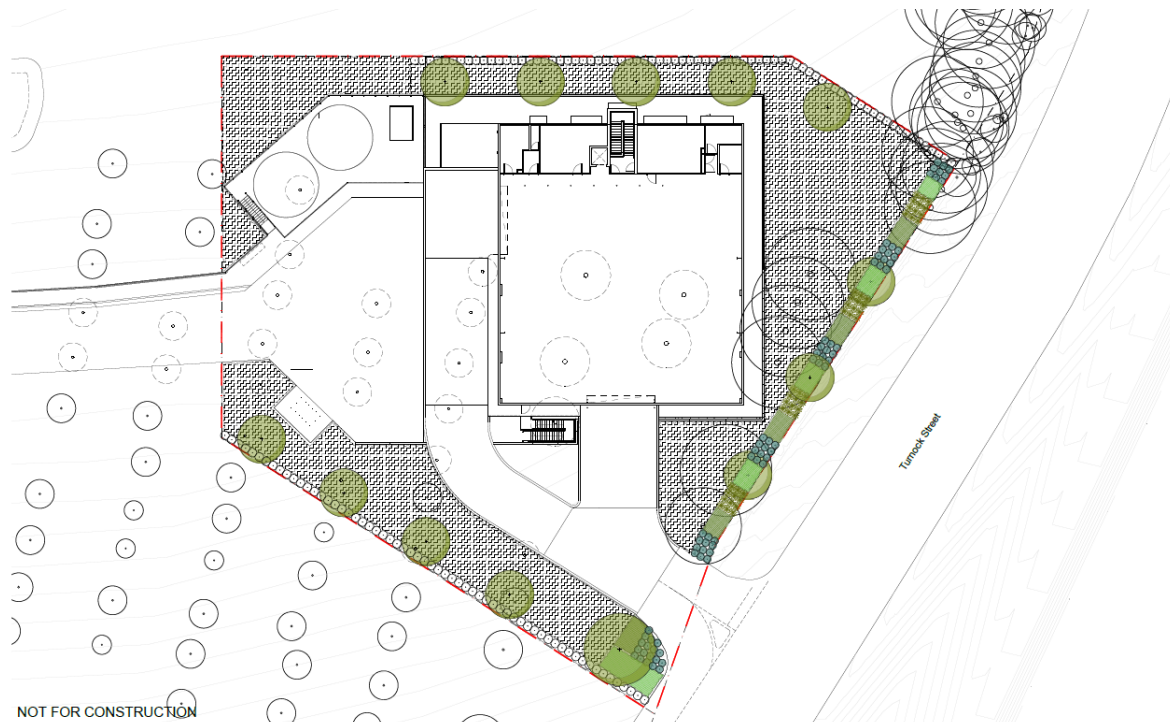


Figure 8 Landscape plan extract

6.4 BCA

Refer to appendix 7.5 for BCA report.

DJRD have engaged BCA Logic to carry out a project specific Building Code of Australia 2019 review of the design drawings for the proposed Kingscliff Ambulance Station located at and to prepare a Building Code of Australia report commenting upon the compliance of the design.

The drawings provided to date have been assessed in respect to the deemed to satisfy provisions of the Building Code of Australia 2019 Parts C, D, E and F. The design is at a point where it can be completed.

General

Building Classification:

Class	Level	Description
3	Lower ground	Sleeping pods
5	Ground and lower ground	Offices, amenities, meeting and communal ancillary areas
7a	Ground and lower ground	Plant room and parking area used for the parking of the ambulances and other vehicles

Rise in Storeys & Effective Height:

The building has a rise in storeys of two (2). The building has an effective height of 5 metres.

Type of Construction:

The building is required to be of Type C Construction.

Exposure to fire source features:

If the external walls of the building are proposed to be located 3m or more from the side and rear boundaries they are not required to be provided with a fire resistance level.

Sleeping Pod:

The BCA considers a sleeping pod to be a sole occupancy unit if the occupier will have exclusive use of the room while they occupy it, see the definition below:

Sole-occupancy unit means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes—

- (a) a dwelling; or
- (b) a room or suite of rooms in a Class 3 building which includes sleeping facilities; or
- (c) a room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
- (d) a room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

The sleeping pod is considered to be a sole occupancy unit and the walls bounding the relief is required to have an FRL of not less than 60/60/60 and must extend:

- to the underside of the next floor above if that floor has an FRL of at least 30/30/30 or a fire-protective covering on the underside of the floor; or
- to the underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than 60 minutes; or
- to the underside of the roof covering if it is non-combustible, and except for roof battens with dimensions of 75mm x 50mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or
- 450 mm above the roof covering if it is combustible

Disabled Access

The BCA does not require the Class 3 relief quarters to be accessible however the building is required to be accessible and to comply with the requirements of Part D3 of Building Code of Australia 2019 and the relevant parts of AS1428.1 2009, these include:

- Disabled access is required to be provided from the main points of a pedestrian entry at the allotment boundary to the main entry door.
- Disabled access is required to be provided from the accessible carspace to the main entry doors.
- All accessible doors should be a minimum of 850mm clear width.
- At least one leaf of all double doors must have a clear width of 850mm.
- All doors should have adequate circulation spaces as per the requirements of figure 31 of AS1428.1 2009.
- Both sides of all doorways that are required to be accessible are required to have a luminous contrast of at least 30% to the adjacent surface as per clause 13.1 of AS1428.1 2009 and as stated on the finishes schedule.
- All switches, card readers etc should be placed at a height of between 900-1100mm from floor level and not less than 500mm from any internal corner.
- All floors are required to have a slip resistant surface.
- The accessible carspace is required to be constructed and line marked in accordance with the requirements of AS/NZS 2890.6 2009.
- Braille and tactile signage is required to be provided to the accessible, male and female toilets and to the exit doors as per the requirements of BCA Clause D3.6.

Services

Fire Hydrants

The building has a combined floor area greater than 500m², therefore a fire hydrant system will be required to serve the building in accordance with AS 2419.1-2005. There is an onsite fire hydrant booster provided on the lower ground floor which is accessed via the proposed link road. Confirmation from the traffic engineer must be provided at CC stage to confirm that a fire truck will be able to access this fire hydrant. The location of the hydrant can readily achieve system coverage throughout the building.

Fire Hose Reels

The building has a combined floor area greater than 500m², therefore fire hose reels will be required in the Class 7a plantroom only. At least one fire hose reel must be located within 4 m of a required exit and coverage must be provided throughout all parts of the building. Coverage is achieved by all parts being located within 40 m of a fire hose reel (36 m of hose with a 4 m spray). Further details to be provided at CC stage.

Section J

Building Fabric:

The envelope of the conditioned space must comply with the building fabric requirements of Part J1 of the Building Code of Australia 2019.

The envelope will include the internal wall as the plant room (vehicle parking bay) is not expected to be conditioned and this internal wall is required to comply with Part J1.

Glazing:

The glazing in the envelope of the conditioned space must comply with the glazing requirements of Part J2 of the Building Code of Australia 2019.

Building Sealing:

Any openings in the envelope of the conditioned space must have seals specified to the external doors and operable windows and must have self-closing devices specified to the swing doors all as per the requirements of Part J3 of the Building Code of Australia 2019.

The envelope will include the internal wall as the plant room (vehicle parking bay) is not expected to be conditioned and the doors in this internal wall are required to comply with Part J3 ie provided with self-closing devices and seals.

Ventilation Systems, Artificial Lighting, Hot Water Supply

The design stage services consultants design certificates have confirmed that the services comply with the requirements of BCA Section J.

Conclusion

The drawings provided to date have been assessed in respect to the deemed to satisfy provisions of the National Construction Code 2019 Parts C, D, E and F. The design is at a point where it can be completed.

7 APPENDIX

7.1 Return Brief

Kingscliff RAIR Ambulance Station ~ Return Brief

1. Reference Documents

This return brief has been prepared to suit the targeted staffing capacity & outlined for year 2031 based on the following Reference Documents;

- a. Email correspondence from NSW Ambulance
- b. RAIR Staff Ratio Appendix - FTE vs Station Requirements

2. Outline of Requirements

Ambulance Station

To be typically based on the Rural Ambulance Station Facilities Design Guidelines / Revision L / Medium Station Template M-01 / 02.1AR1101 - modified to suit required FTE staff levels in accordance with RAIR Staff Ratio Appendices Spreadsheet V5

Staffing

Full Time Equivalent Staff	24	As per NSW Correspondence
DOM	1	

Provision for Staff

		As per RAIR Staff Ratio Appendix
Locker Room – provision for	30	Lockers (24 x 1.23 FTE)
Common Area Lounge – provision for	8	Staff
Common Area Dining – provision for	10	Staff
Admin Space (Peak by half) – provision for	3	staff

Equipment

		As per RAIR Staff Ratio Appendix
Computers – provision for	3	pcs in admin area
Basic Printer – provision for	1	Basic printer in admin area

Amenities Male

		As per RAIR Staff Ratio Appendix
WC	1	
Shower	1	
Change Cubicle	1	

Amenities Female

		As per RAIR Staff Ratio Appendix
WC	1	
Shower	1	
Change Cubicle	1	

Accessible Amenities

		As per RAIR Staff Ratio Appendix
Combined Accessible WC + Shower	1	in accordance with AS1428

Additional Modules		As per RAIR Design Guidelines
Zone & Sector Management Module	1	Tier 1 – 1 x shared DOM office – 12m2 and 1 x 9m2 S/O office
Fleet Maintenance		Tier 1 as noted in Plant Room below
Sleeping Pod	2	Required 1 bed per pod
Education	1	Tier 2 – Approx. 30-40m2 Multi-purpose Tier 2 Education Class/Meeting Room
Gym Space Module	1	Approx. 12m2 – may be internal or external protected from the elements

Plant Room

To be typically based on the Rural Ambulance Station Facilities Design Guidelines / Revision L /

Medium Station Template M-01 / 02.1AR1101 – modified to suit site as follows;

1. to suit required # of parking bays as outlined on the RAIR Endorsement sheet
2. to suit endorsed schedule of accommodation in approved Return Brief
3. to suit site size & geometry

Internal Vehicles		As per NSW Correspondence
Ambulance	7	Internal bays
Internal Wash Bay	1	
Fleet Maintenance Bay	Included	Tier 1
Total Internal Vehicles	(8) 7 ambulance bays + 1 wash bay	

External Vehicles (Covered)		As per RAIR Design Guidelines
DOM Bay	1	
Total External (Covered) Vehicles	(1) 1 DOM bay	

Other Parking (Not Covered)		Standard Car Parking Bay size: 5.4x2.4m
Accessible Parking Bay + Circulation Area	1	statutory requirement in accordance with AS2890.6
Parking bays	6	As per RAIR Staff Ratio Appendix
Total	(7) 1 acc. + 1 wash bay + 6 parking bays	

Indicative SOA

Ambulance Station

1	x	3 staff	Admin	To suit required number of staff
1	x	30 m ²	Combined Medical Equipment Store	As per RAIR Staff Ratio Appendix
1	x	>7m ²	Comms Cupboard	To suit NSW ITC Reqs
1	x	4m ²	Cleaner's Sink / Store	
1	x	9m ²	Office	
1	x	12m ²	DOM Office	Shared Office
		-	Circulation	
Amenities				
1	x	8 staff	Common Room	To suit required number of staff
1	x	10 staff	Meals	To suit required number of staff
1	x	7m ²	Accessible WC with shower	
1	x	14 m ²	Male WC	
1	x	incl	Male Shower	
1	x	incl	Male Change	
1	x	14 m ²	Female WC	
1	x	incl	Female Shower	
1	x	incl	Female Change	
1	x	30 lockers	Locker Room	To suit required number of lockers
1	x	11 m ²	Charge	
1	x	12m ²	Gym	

Bolt On Module: Sleeping Pods

1	x	7m ²	Sleeping Pod
1	x	7m ²	Sleeping Pod

Bolt On Module: Education Tier 2

1	x	30m ²	Multi-purpose Classroom
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Vehicle Plant Room

1	x	Variable	Plant Room	Drive through configuration to suit 7 SEV
1	x	Variable	Internal Wash Bay	
1	x	15m ²	Delivery	
1	x	4m ²	Main Switchboard	
1	x	2m ²	Oil Separator	

Associated External Spaces

1	x	28m ²	Outdoor Area	Adjacent to common room
1	x	variable	Services	Tbc with consultants
1	x	6m ²	Waste	Confirm if Bolton Modules require this to be larger

Parking Allocation Covered

1	x		DOM Bay	2.7x5.4m Large Car Park
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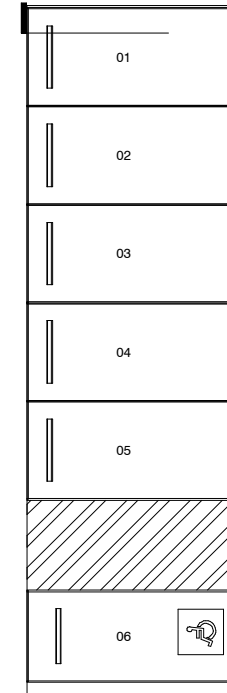
Parking Allocation Not Covered

1	x		Accessible Parking Bay + Circulation	Standard Car Parking Bay size: 5.4x2.4m
6	x		Parking Bays – Ambulance Station	Standard Car Parking Bay size: 5.4x2.4m

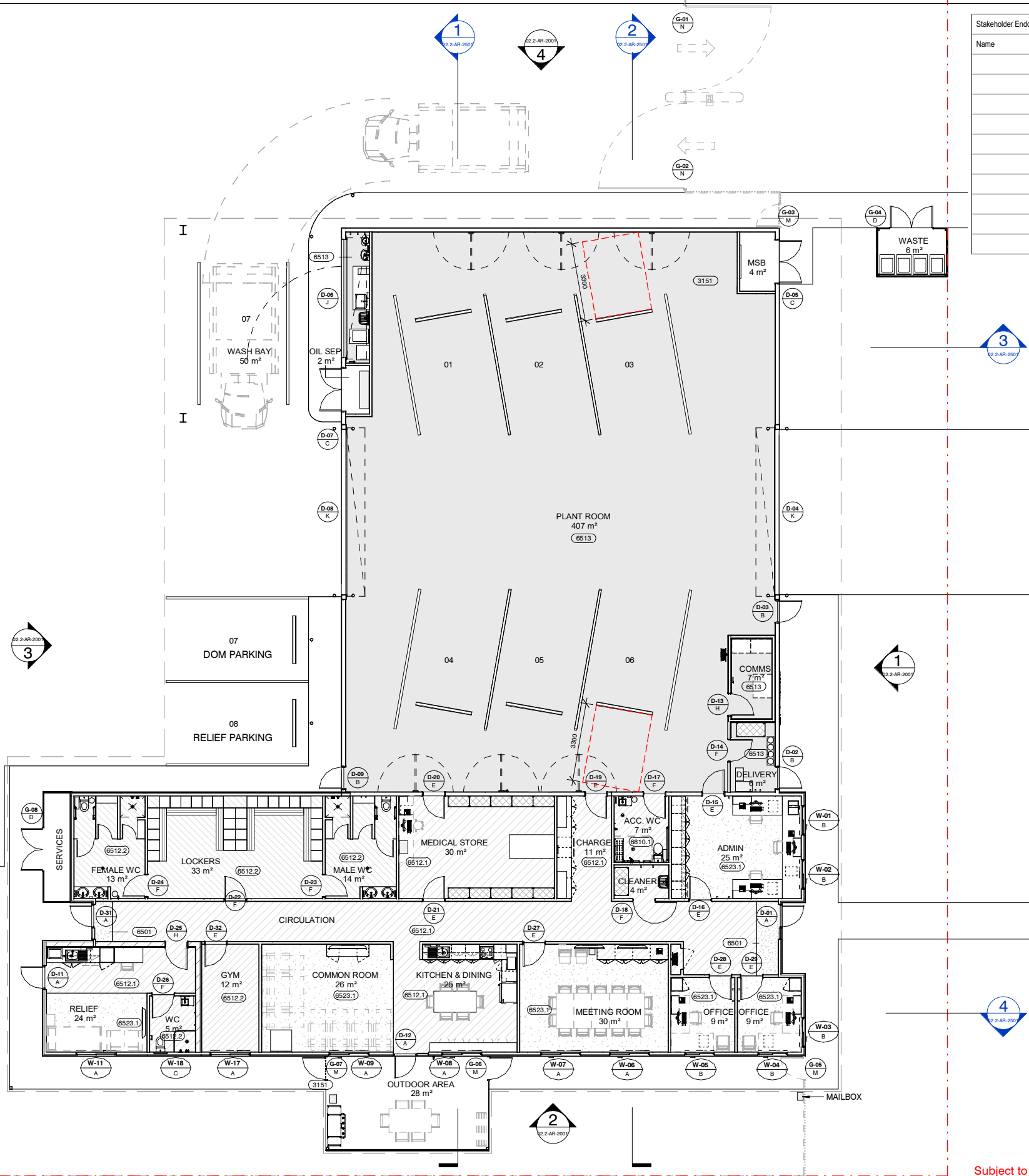
7.1 Return Brief

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SERVICE BAY



TURNING BAY



Stakeholder Endorsement		
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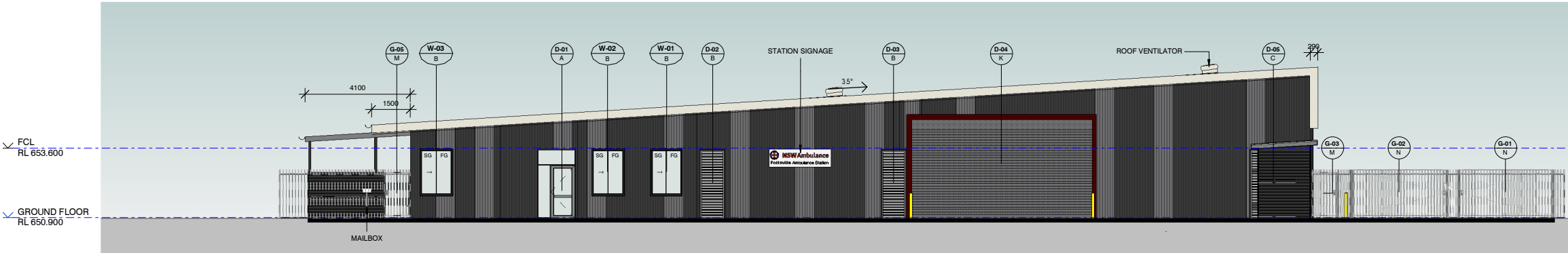
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- GENERAL NOTES:
- External walkways/pedestrian access from the site boundary to be as per AS1428.1 - 2009.
 - TGIs to be compliant with AS1428.4.1 - 2009 with correct luminance contrast widths and slip resistance as specified in the BCA.
 - Accessible parking to comply with requirements of AS2890.6.
 - Where carpets are specified, pile height or thickness not more than 11mm and carpet backing not more than 4mm, bringing the total height to a maximum of 15mm.
 - All signage for accessible toilet, ambulant toilets, general toilets and fire exit doors to be Braille and Tactile Signs.
 - Accessible and ambulant toilets to be constructed as per AS1428.1-2009. Switches and controls in accessible toilets to comply with AS1428.1-2009.
 - All doorways (excluding doors to male/female toilets) and door hardware to comply AS1428.1-2009.
 - All full glazed areas to have a BCA compliant glazing strip for the full width and a solid non transparent 75mm wide contrasting line located 900mm-1000mm above FFL and provide a minimum luminance contrast of 30%.
 - All floor surfaces to be step/lip free with abutment of surfaces to have a smooth transition. Construction tolerances to be as per AS1428.1-2009.
 - Any grates that are introduced along the path of travel must be heel guard type and comply with Clause 7.5 AS1428.1 2009.
 - Requirements of gates and fences dependent on security desktop review per site
 - Refer to finishes schedule for floor finish types

Subject to review and approval of drawings and FFE selections. Proposed Modifications to be incorporated into Template Design of Medium Station as part of future Design Guidelines Revision K issue.

30.04.21

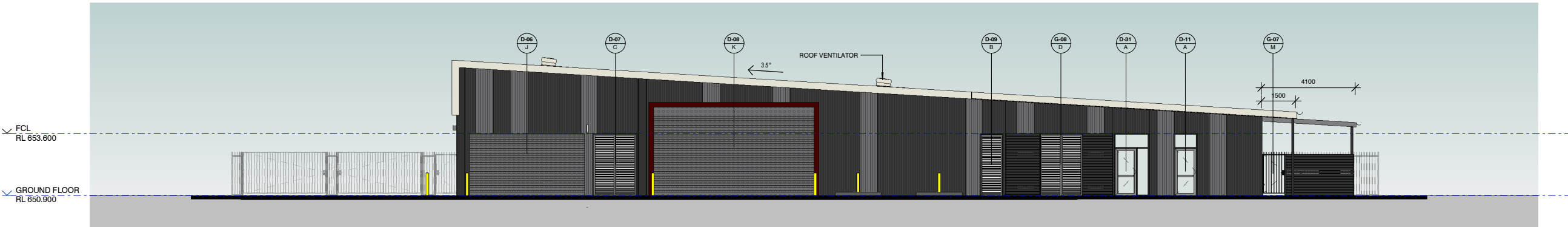
Stakeholder Endorsement		
Name	Signature	Date



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② ELEVATION 02
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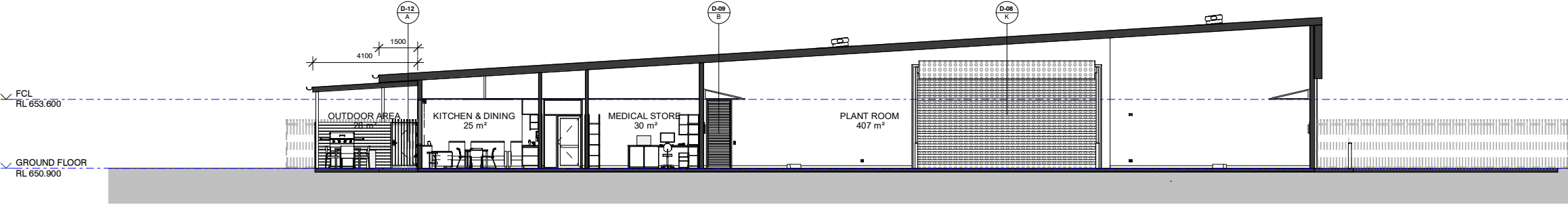
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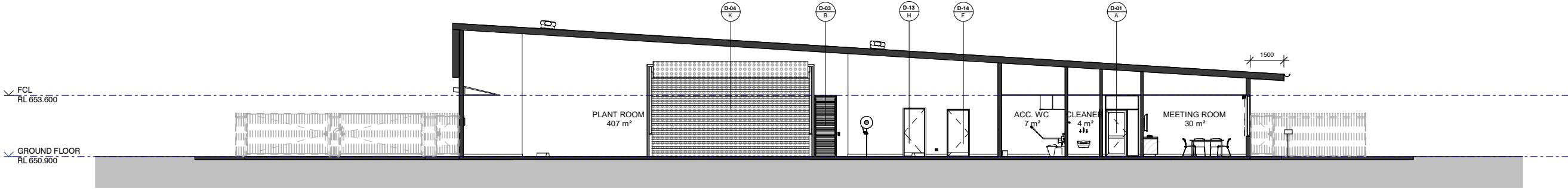
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GENERAL NOTES:
1. Requirements of gates and fences dependent on security desktop review per site

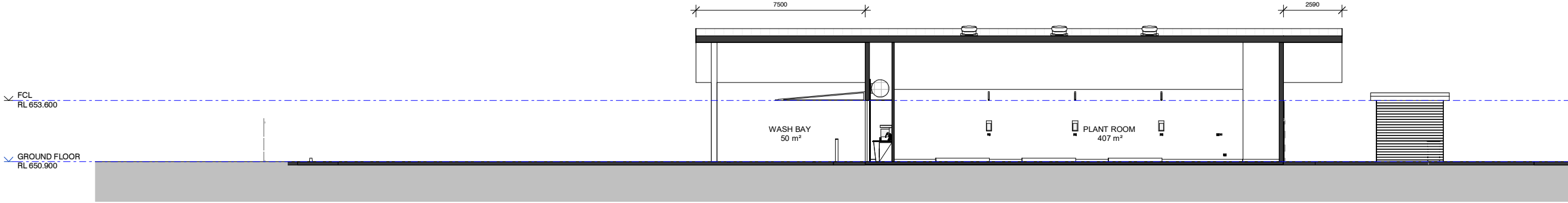
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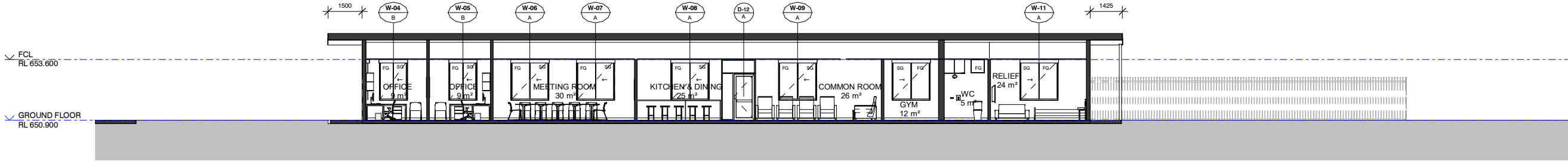
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2 SECTION 02
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3 SECTION 03
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4 SECTION 04
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GENERAL NOTES:
1. Requirements of gates and fences dependent on security desktop review per site

7.3 Architectural Drawings

DRAWING LIST		
DWG #	DRAWING TITLE	Current Revision

A 3D architectural rendering of a building complex. The main building is a large, rectangular structure with a light-colored, corrugated metal roof. Six large, dark rectangular solar panels are mounted on the roof in a 2x3 grid. The building's exterior walls are dark grey or black. A wide, light grey concrete walkway or ramp runs along the side of the building, supported by several vertical pillars. To the left of the main building, there are two large, cylindrical storage tanks, one in front of the other, both with dark grey tops and light grey bases. A small, white, single-story building is visible behind the main structure. The entire scene is set against a plain, light green background.

DRAWING LIST		
DWG #	DRAWING TITLE	Current Revision

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A	22.12.21	BASE ARCHITECTURE SET	MR

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PROJECT
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PROGRAM (RAIR) KINGSLIFF

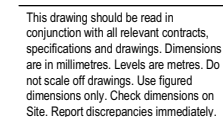
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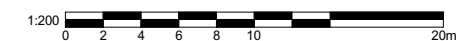
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5. Results	5
6. Discussion	6
7. Conclusion	7
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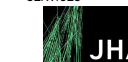
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LOT11 : DP1269398

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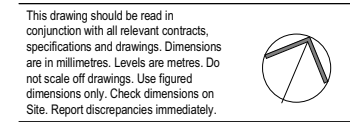
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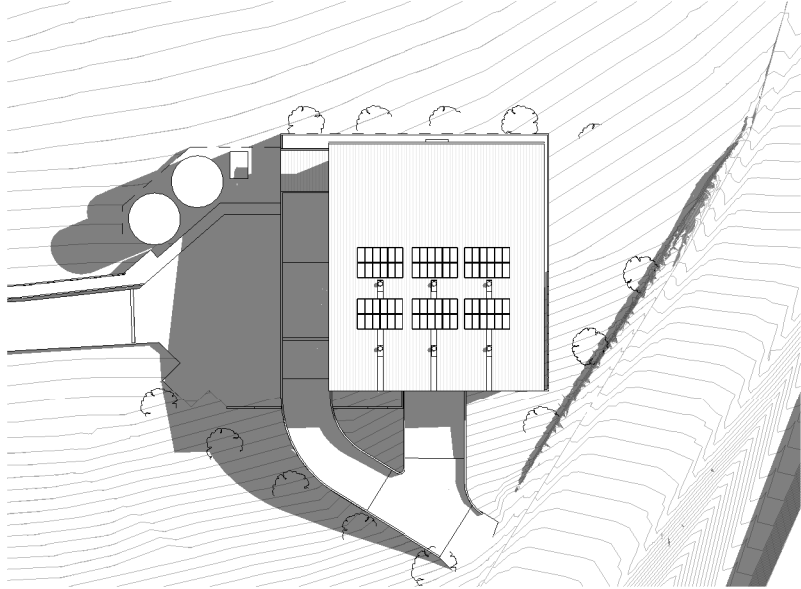
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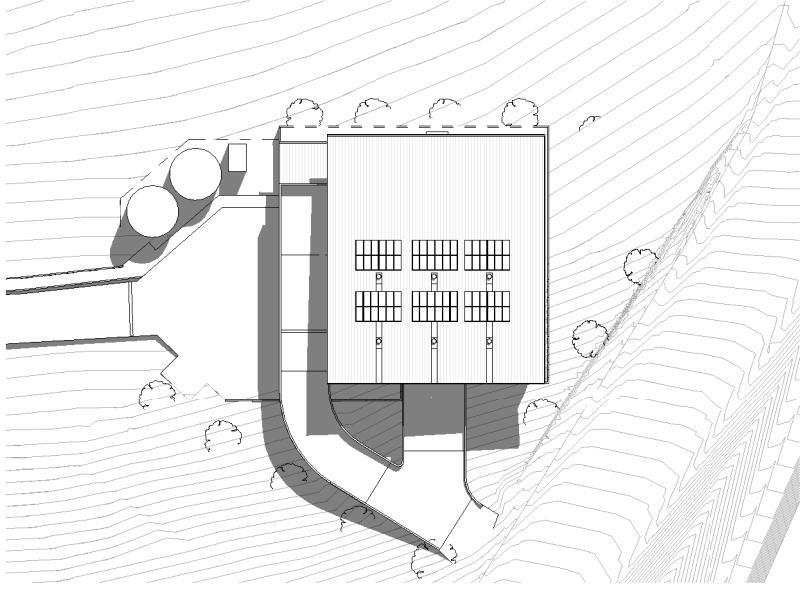
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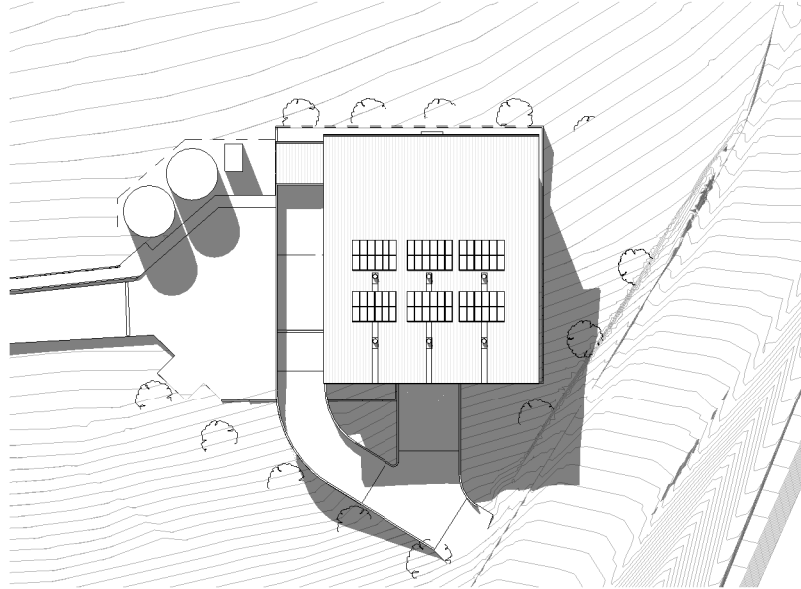
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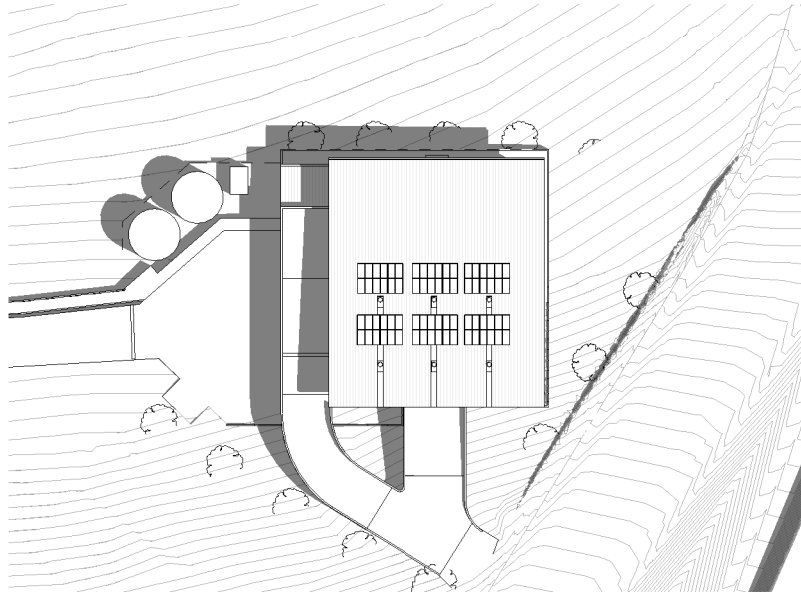
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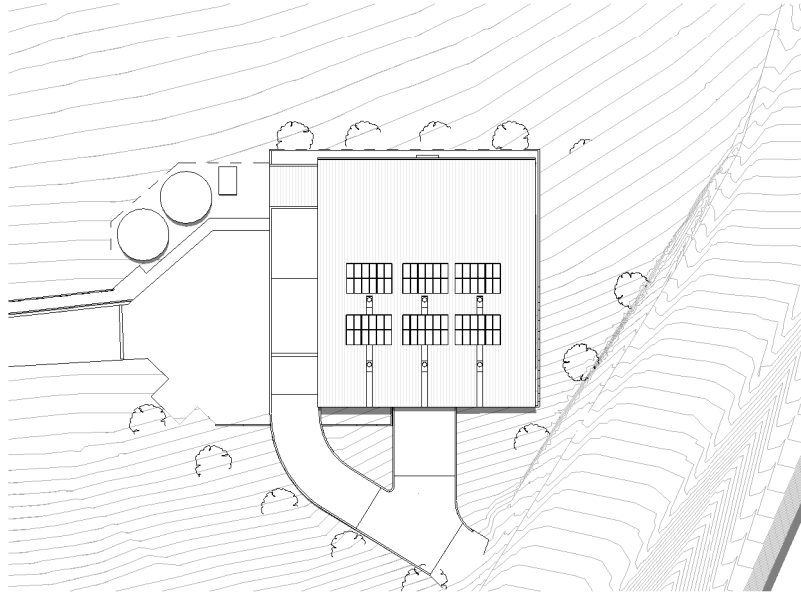
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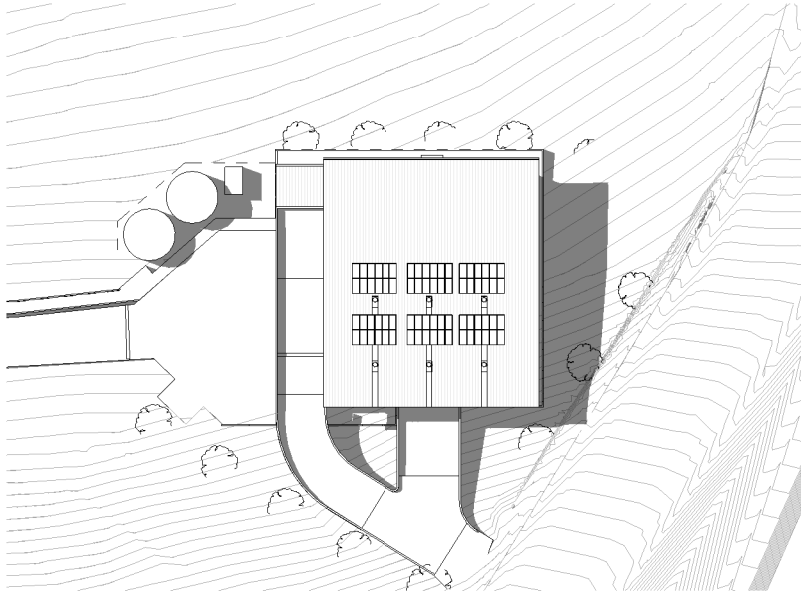
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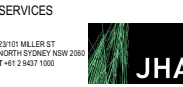


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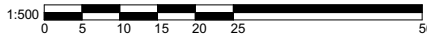
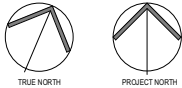
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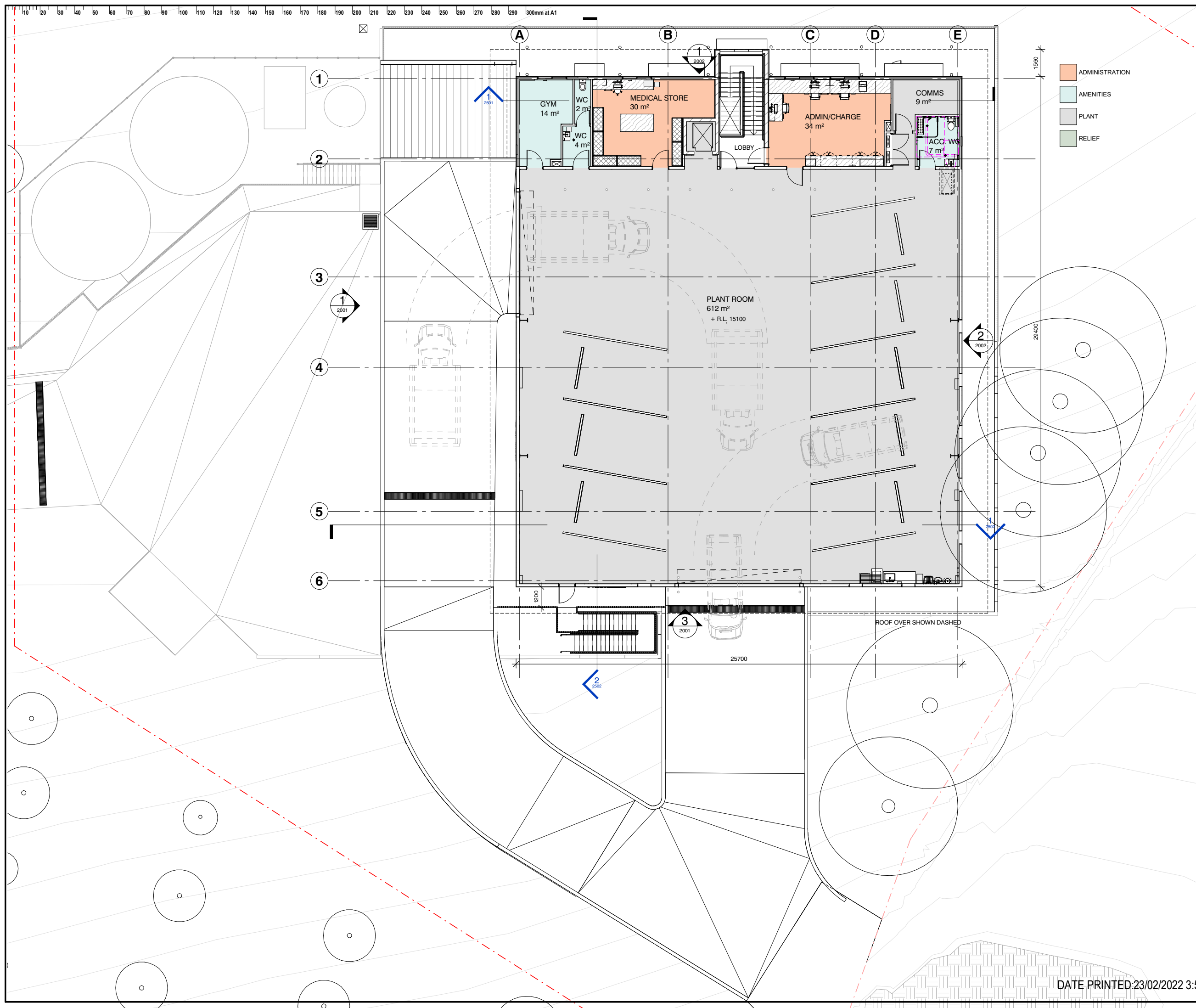
PROJECT
**RURAL AMBULANCE
INFRASTRUCTURE PROGRAM (RAIR)
KINGSCLIFF**

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NSW GOVERNMENT
Health Infrastructure
NSW Ambulance
PROJECT ADDRESS
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AF	1 : 500	
DESCRIPTION		
SHADOW DIAGRAMS		
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21 408	R25-AR-0104	B



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A	22.12.21	BASE ARCHITECTURE SET	MR

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PROJECT
RURAL AMBULANCE INFRASTRUCTURE
PROGRAM (RAIP), KINGSCLIFF

PROGRAM (RAIR) KINGSCLIFF

KINGSCLIFF, NSW, 2487
LOT11 : DP1269398

PHASE

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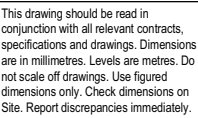
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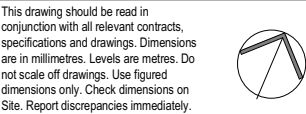
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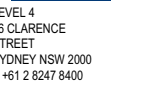
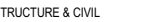
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PROJECT MANAGER



SERVICES



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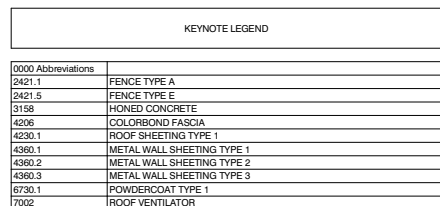
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PROGRAM (RAIR) KINGSCLIFF

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DESCRIPTION

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PROJECT
RURAL AMBULANCE INFRASTRUCTURE
PROGRAM (RAIR) KINGSCLIFF

KINGSCLIFF, NSW, 2487
LOT11 : DP1269398

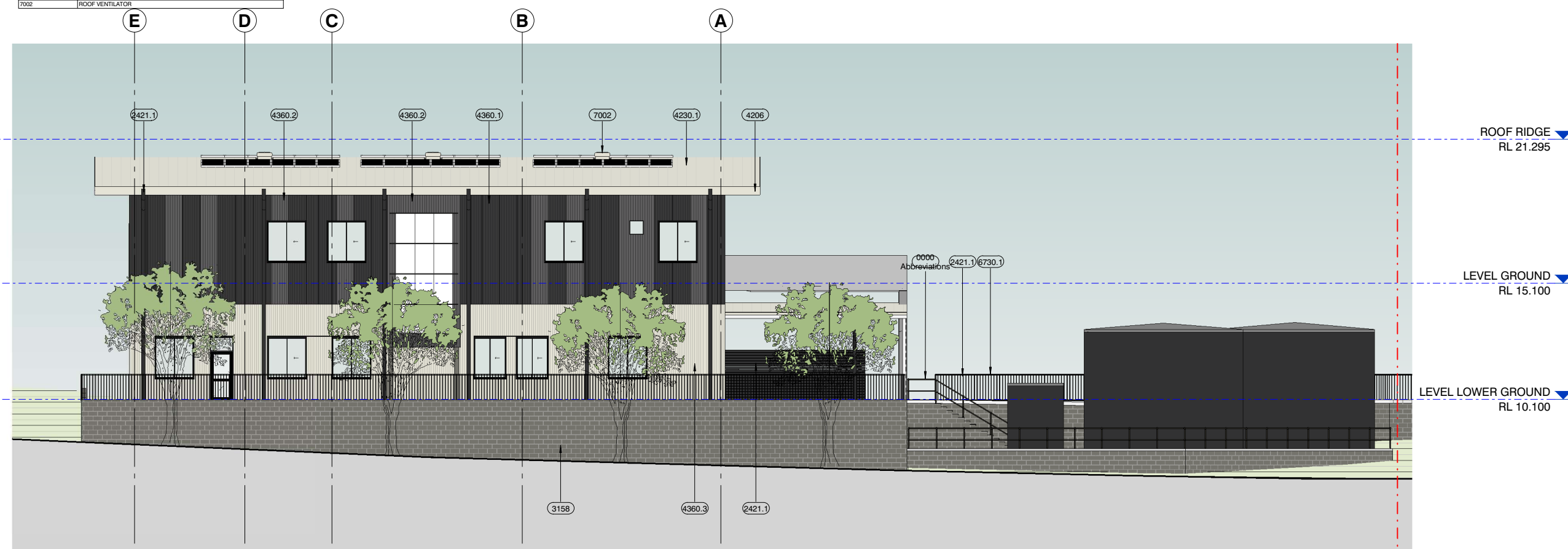
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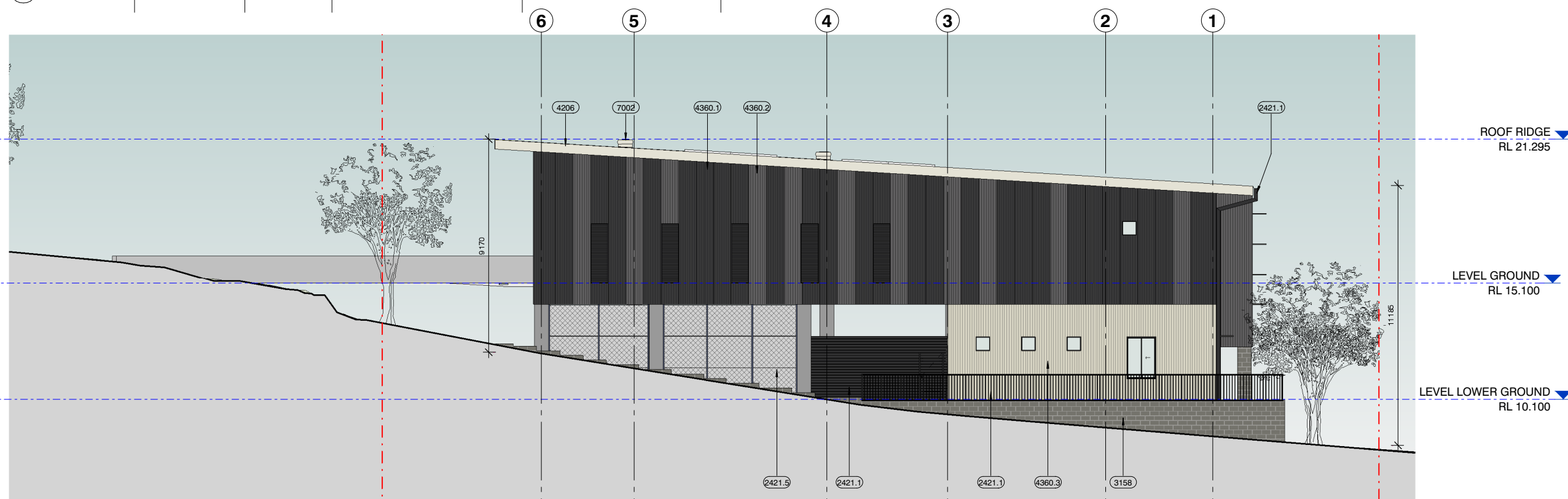
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PROJECT No	DRAWING No	REVISION
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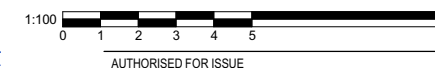
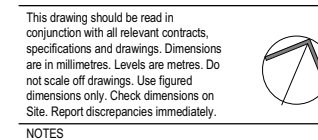


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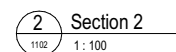


2 EAST ELEVATION
1101 1:100

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1 Section 1
1101 1 : 100



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LOT11 : DP1269398

PHASE

DRAWN	SCALE	SHEET SIZE	ORIGIN DATE
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SECTIONS

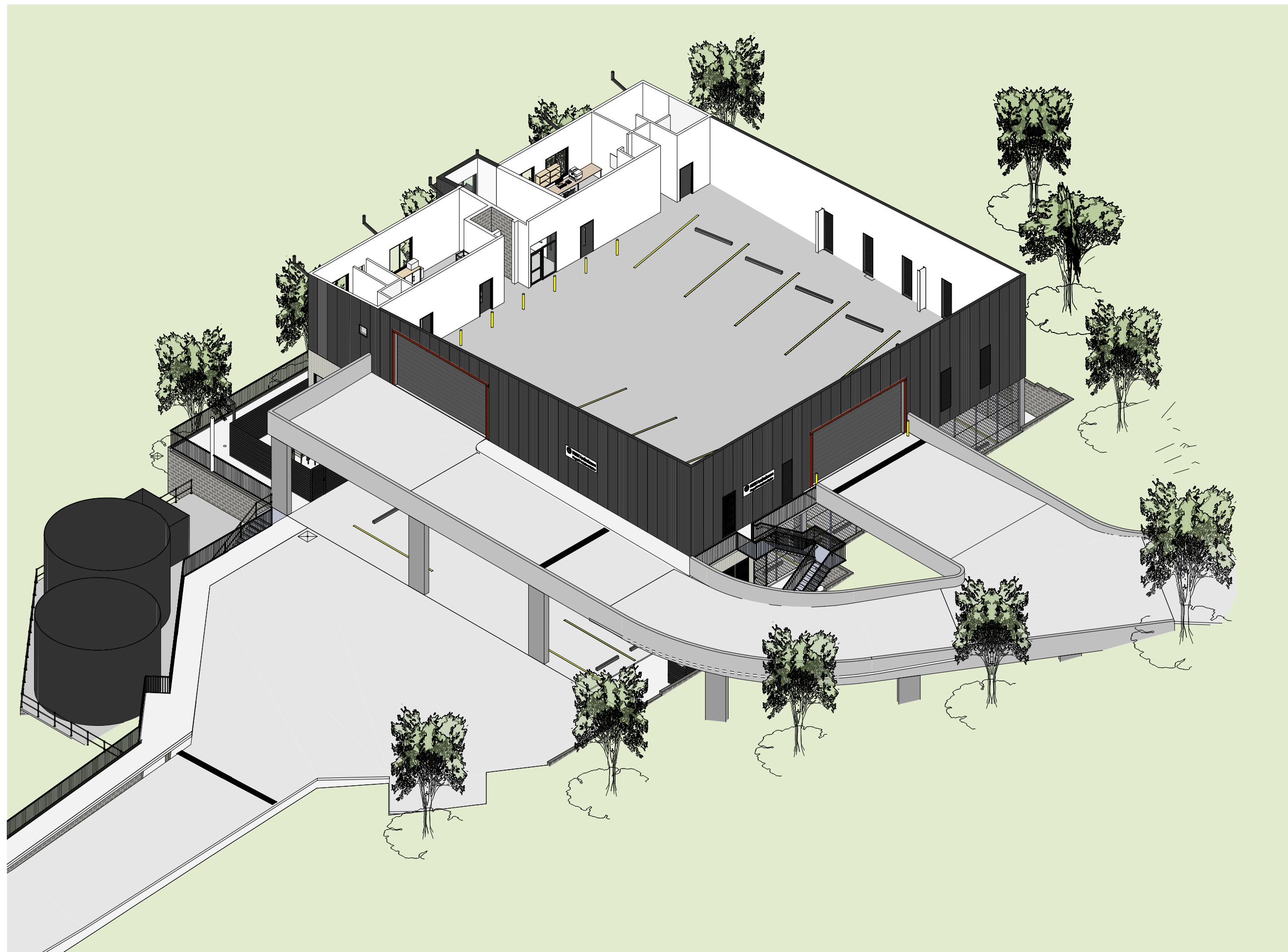
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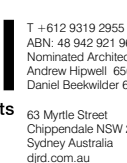
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LOT11 : DP1269398

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AF			08/09/21

DESCRIPTION

GROUND FLOOR
AXONOMETRIC

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21 408	9002	E

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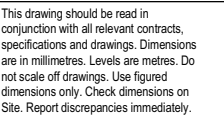
PROJECT
RURAL AMBULANCE INFRASTRUCTURE
PROGRAM (RAIR) KINGSLIFF

KINGSCLIFF, NSW, 2487
LOT11 : DP1269398

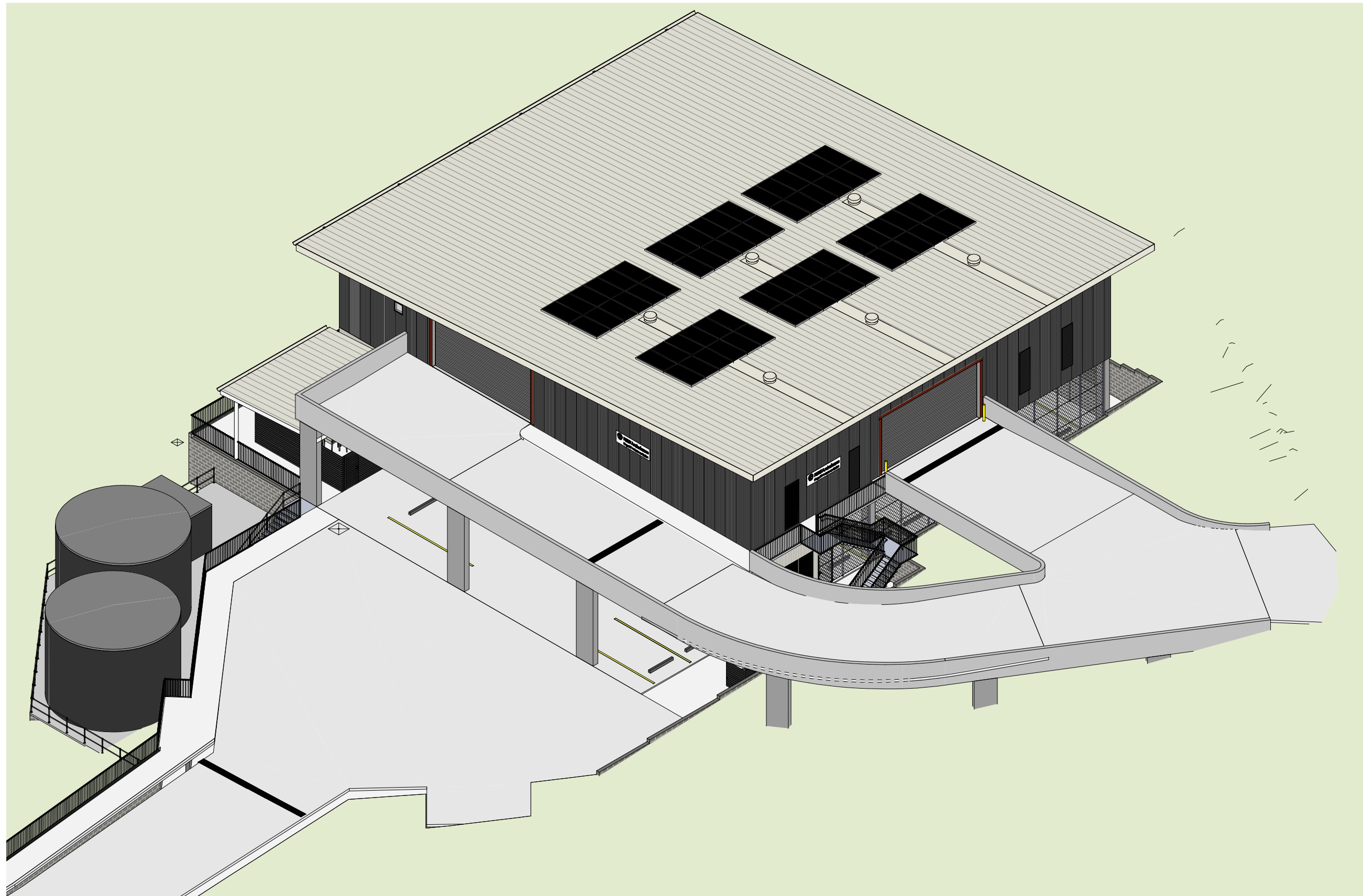
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AF			01/24/22
DESCRIPTION			
LOWER GROUND			
AXONOMETRIC			
PROJECT No	DRAWING No	REVISION	
21 408	9003	C	

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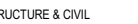
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ominated Architects:
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AF			02/14/22

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PROJECT NO	DRAWING NO	REVISION
21 408	9004	

DATE PRINTED:23/02/2022 4:03:22 PM

7.4 Landscape Architecture Drawings

R25 Kingscliff RAIR

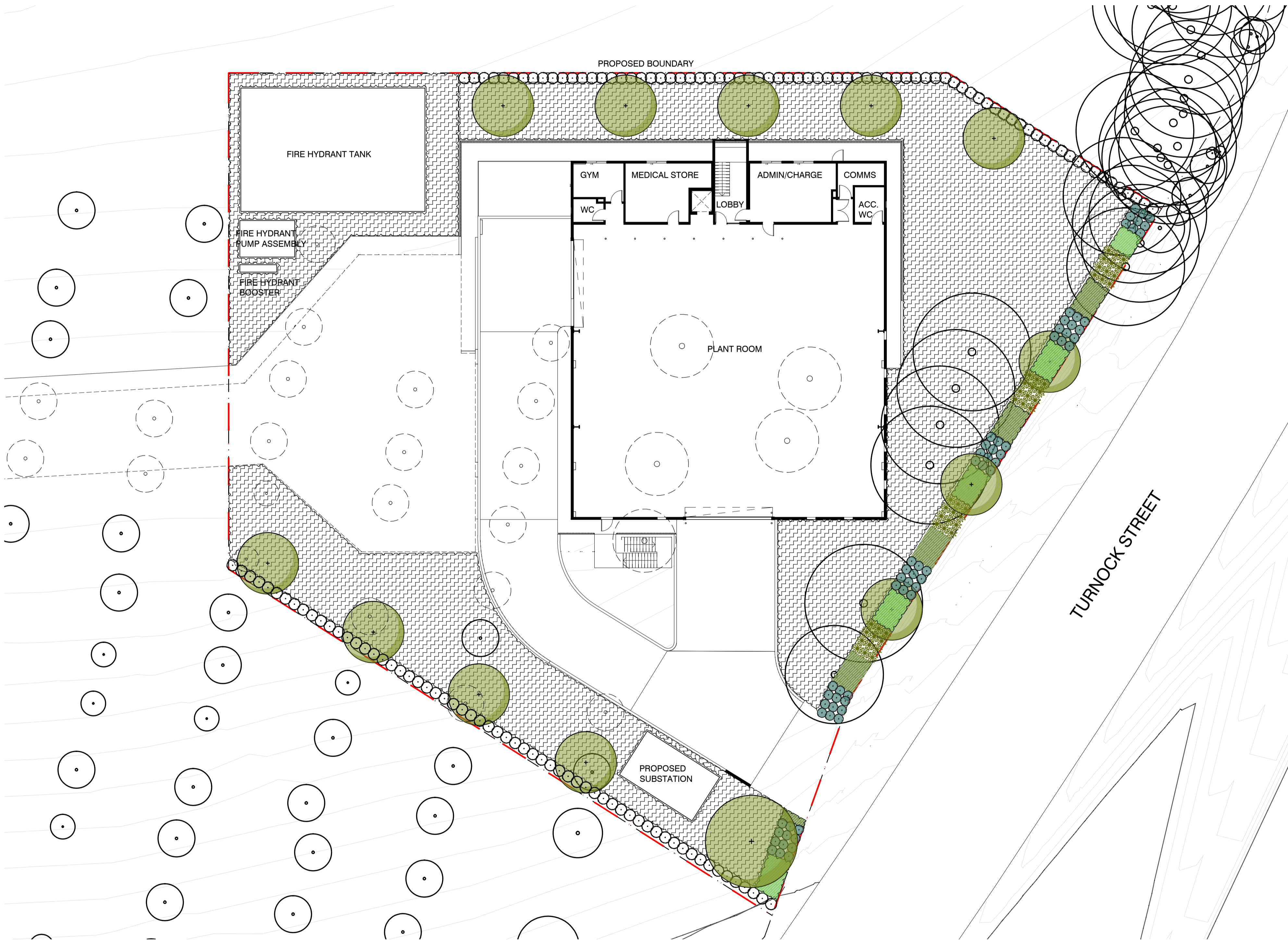
Kingscliff, NSW, 2487 LOT11 : DP1269398

Development Application

Drawing Schedule

Drawing Number	Drawing Title	Scale
R25-LA-000	Landscape Coversheet	N/A
R25-LA-101	Landscape Plan	1:150
R25-LA-501	Landscape Details	As Shown

Plant Schedule				
	Botanic Name	Common Name	Mature Size (h x w) (m)	Pot Size
TREES				
Ca	<i>Cupaniopsis anacardioides</i>	Turkeeroo	15 x 5	As Shown
TL	<i>Tristanopsis laurina</i> 'Luscious'	Water Gum	9 x 8	As Shown
SHRUBS				
Ad	<i>Austromyrtus dulcis</i>	Midgen Berry	1 x .8	As Shown
AHM	<i>Aemona smithii</i> 'Hedge Master'	Lilly Pilly	2 x 1	As Shown
CBJ	<i>Callistemon viminalis</i> 'Better John'	Better John	1.2 x 0.9	As Shown
Jc	<i>Juniperus conferta</i>	Shore Juniper	0.3 x 2.5	As Shown
LCP	<i>Loropetalum chinense rubrum</i> 'China Pink'	China Pink Loropetalum	1.5 x 1.5	As Shown
MT	<i>Metrosideros</i> 'Tahiti'	Tahiti New Zealand Chrstmas B	1 x 1	As Shown
ROP	<i>Raphiolepis</i> 'Oriental Pearl'	Oriental Pearl	1.5 x 1	As Shown
Vo	<i>Viburnum odoratissimum</i>	Sweet Viburnum	3 x 2.5	As Shown
WAB	<i>Westringia fruticosa</i> 'Aussie Box'	Native Rosemary	0.6 x 0.6	As Shown
GRASSES AND GROUNDCOVERS				
Cg	<i>Carpobrotus glaucescens</i>	Pigface	1 x 2	5/sqm
Dc	<i>Dianella caerulea</i>	Flax Lily	4 x 4	5/sqm
Dr	<i>Dianella revoluta</i>	Blueberry Lily	1 x 2	5/sqm
Hs	<i>Hibbertia scandens</i>	Snake Vine	1 x 1	5/sqm
LI	<i>Lomandra longifolia</i>	Matt Rush	1 x 1	4/sqm
Matrix Planting			Total Area	1157
				/25sqm
Ad	<i>Austromyrtus dulcis</i>	Midgen Berry	1	8
CLJ	<i>Callistemon 'Little John'</i>	Bottlebrush	1	1
WAB	<i>Westringia fruticosa</i> 'Aussie Box'	Native Rosemary	0.6	0.6
Hs	<i>Hibbertia scandens</i>	Trailing Guidea Flower	0.2	1
LI	<i>Lomandra longifolia</i>	Matt Rush	1	1
Dc	<i>Dianella caerulea</i>	Flax Lily	0.4	0.4
Hv	<i>Hardenbergia violacea</i>	False Sarsaparilla	3	2



Site Plan | Scale 1:200

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The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

A Preliminary
Issue Revision Description

RH NM 20.01.2022
Drawn Check Date

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Health Infrastructure
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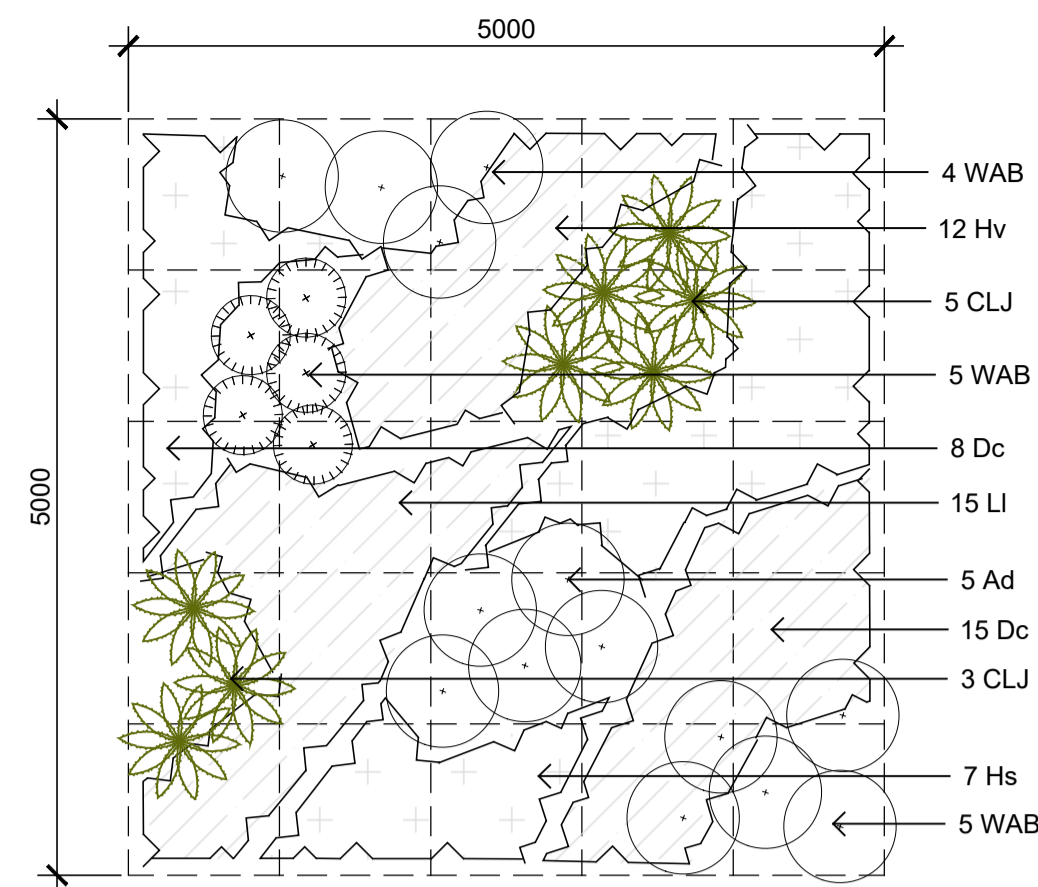
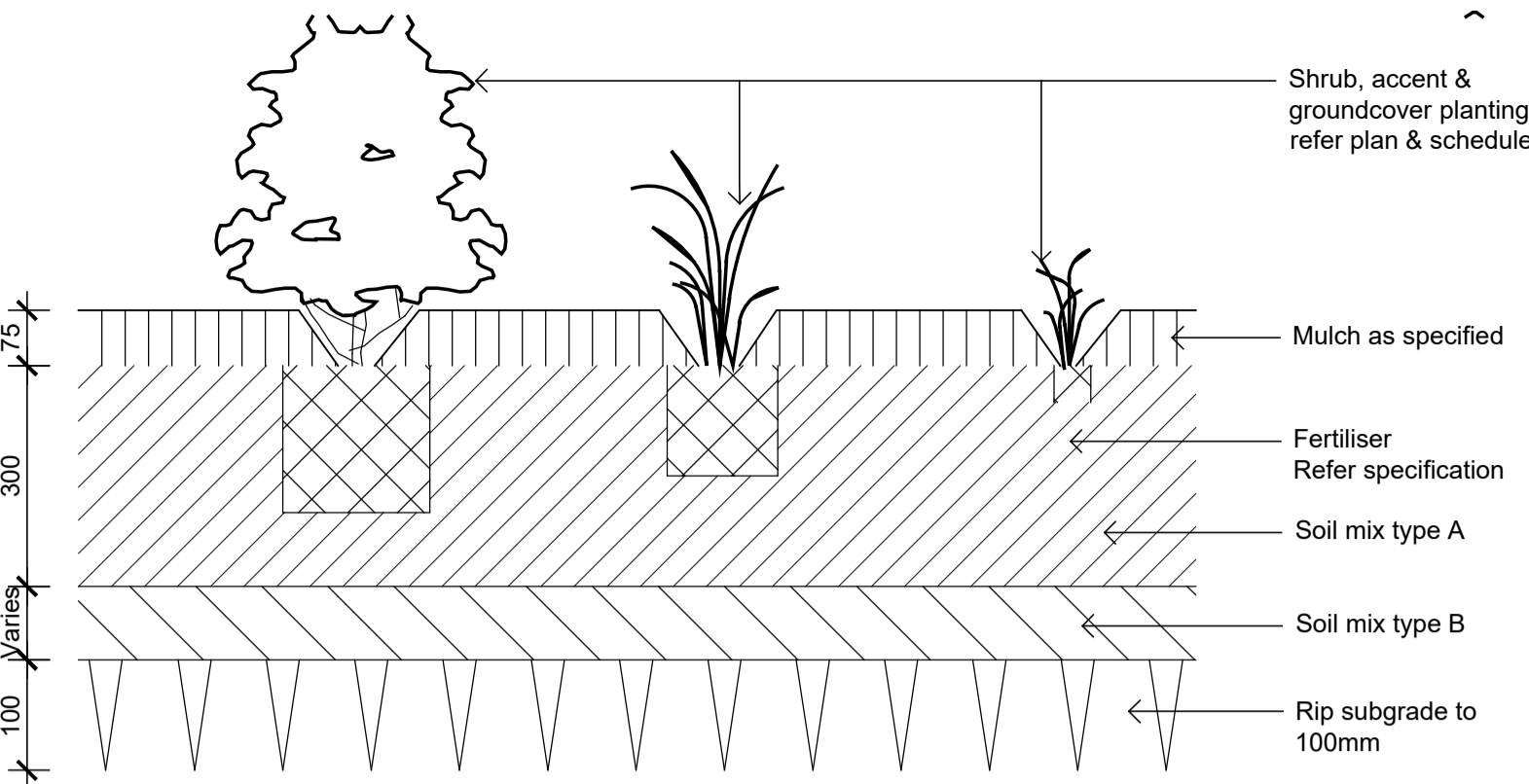
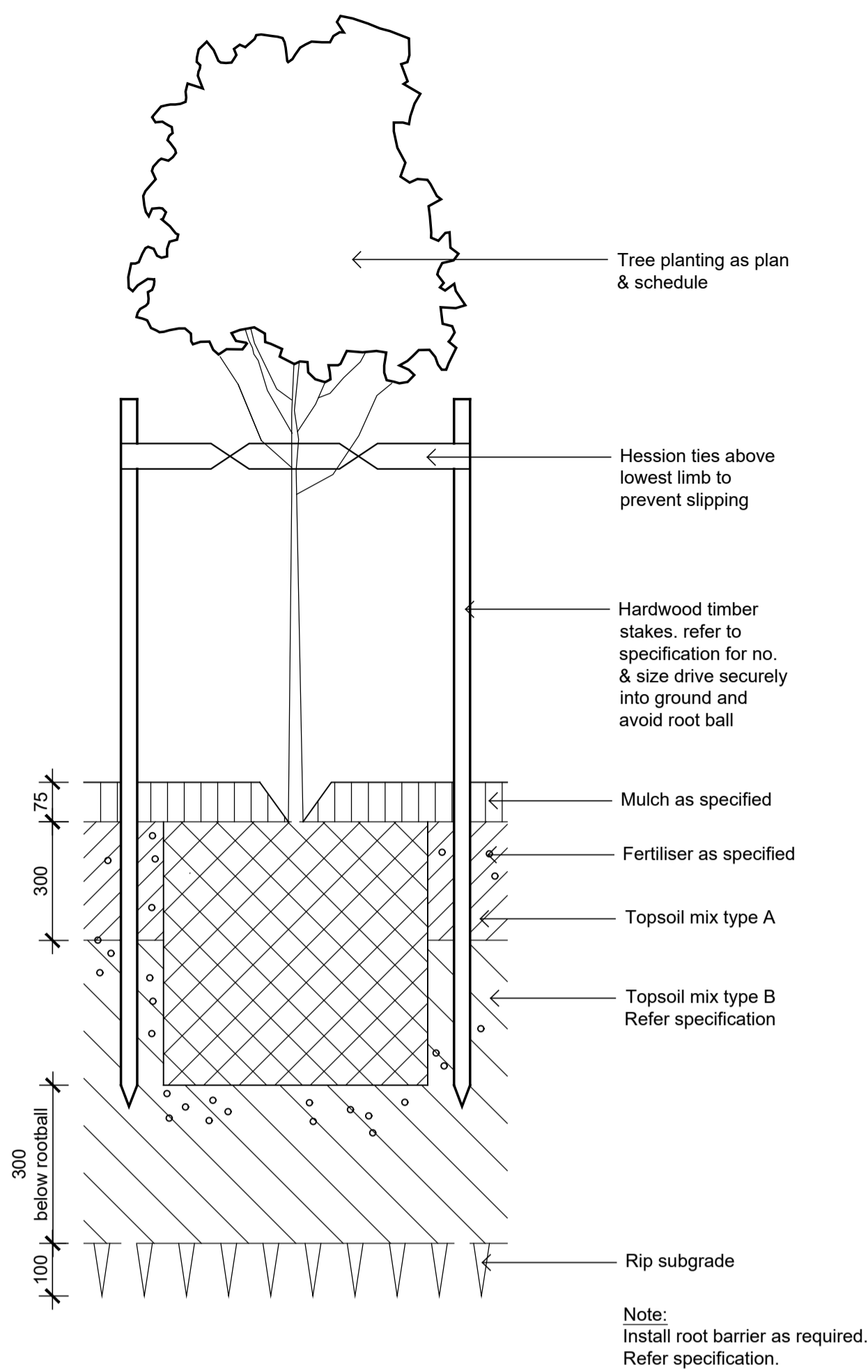
Project
R25 Kingscliff RAIR
Kingscliff, NSW, 2487
LOT11: DP1269398

Drawing Name
Landscape Coversheet

DEVELOPMENT APPLICATION

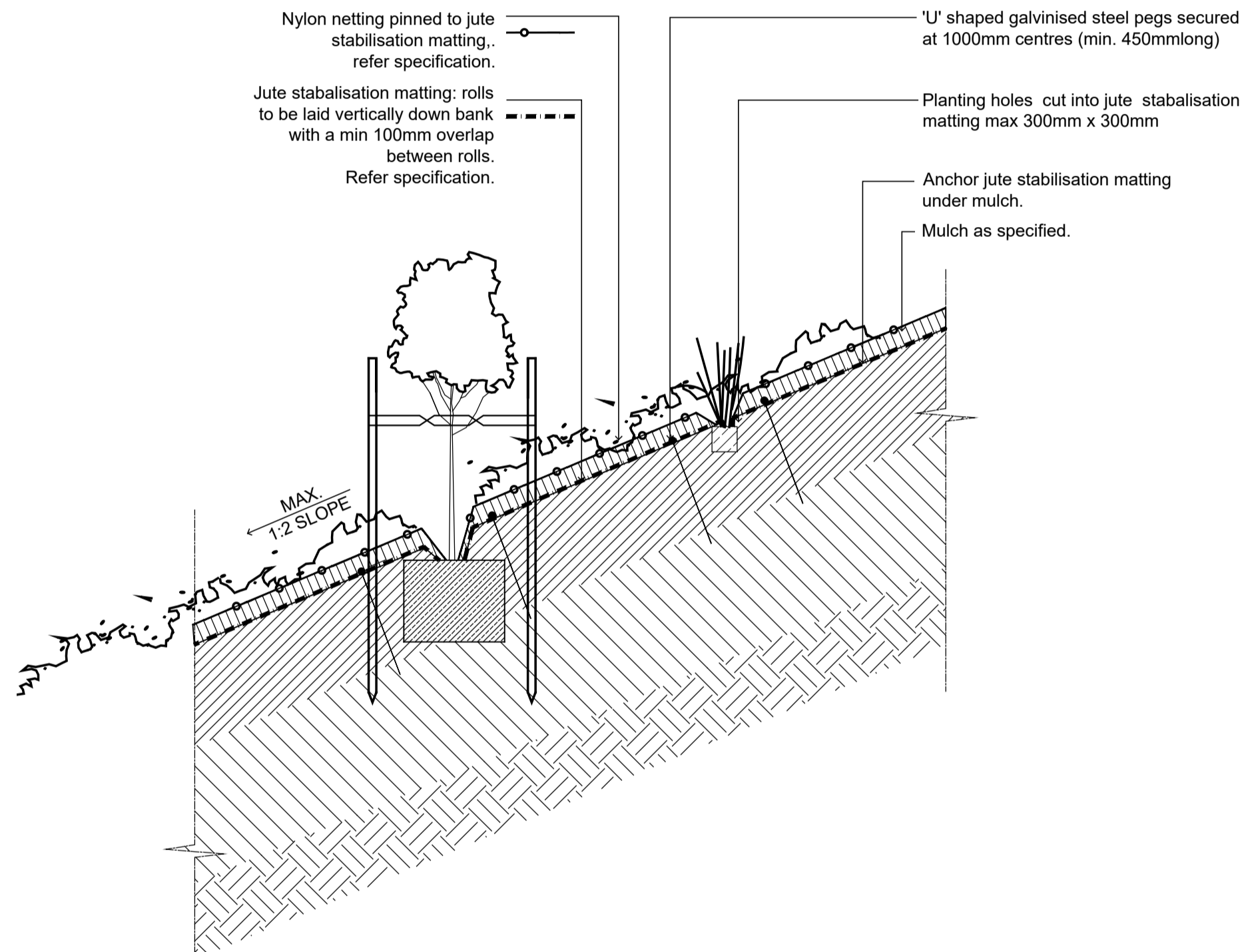
Scale
Job Number
SS22-4855

Drawing Number
R25-LA-000
Issue
A



02 Detail Shrub Accent & Groundcover Planting on Grade
501 1:10

04 Planting Matrix
501 1:50



03 Typical Embankment Planting
501 1:20

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Issue Revision Description

RH NM 20.01.2022
Drawn Check Date

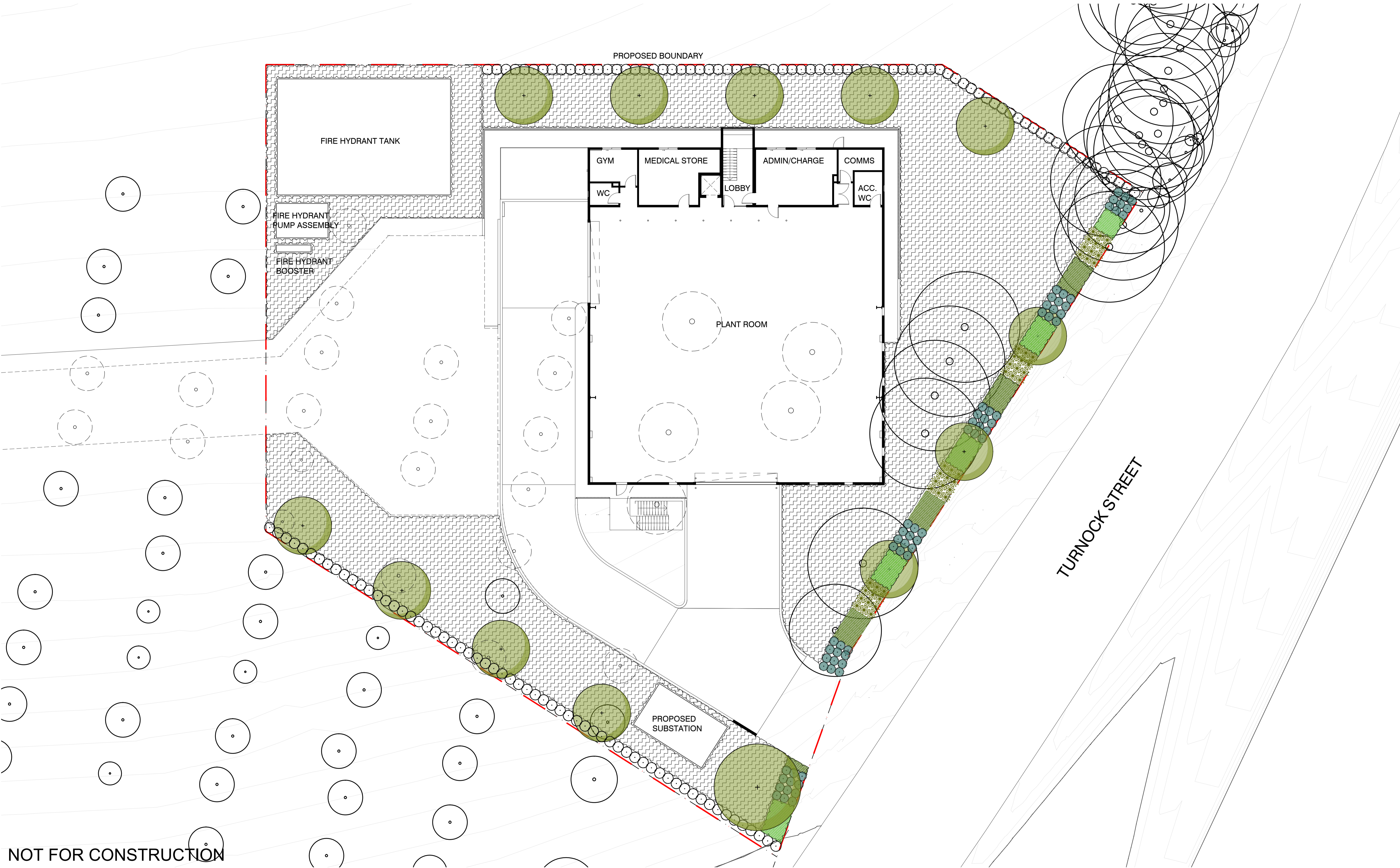
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NSW Ambulance
Project
R25 Kingscliff RAIR
Kingscliff, NSW, 2487
LOT11: DP1269398

Drawing Name
Landscape Details

DEVELOPMENT APPLICATION

Scale
Job Number
SS22-4855
Drawing Number
R25-LA-501
Issue
A

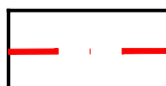


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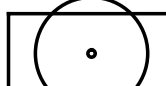
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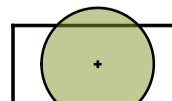
Boundary



Tree to be Removed



Tree to be Retained



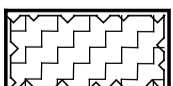
Proposed Tree
Refer Schedule and Detail



Shrubs and Accents
Refer Schedule and Detail



Massed Grasses and
Groundcovers
Refer Schedule and Detail



Matrix Planting

SITE IMAGE



Landscape Architects

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Health
Infrastructure



Project

R25 Kingscliff RAIR
Kingscliff, NSW, 2487
LOT11: DP1269398

Drawing Name

Landscape Plan

DEVELOPMENT APPLICATION

Scale 1:150 @ A1

Job Number

SS22-4855

0 1 2 3 4 5m

Drawing Number

R25-LA-101

Issue

A

A Preliminary
Issue Revision Description

RH NM 20.01.2022
Drawn Check Date

7.5 BCA Report



BCA Assessment Report

Lot 11: DP 1269398 (Kingscliff)



Project:	Lot 11: DP 1269398 (Kingscliff)
Reference No:	113737:9a-BCA-r1
Date:	11 February 2022
Client:	DJRD Architects
Email:	DBeekwilder@djrd.com.au
BCA Logic Contact:	Jarryd Beckman
Direct:	(02) 8484 4094
Email:	jbeckman@bcalogic.com.au

Document Control



Revision	Date	Description	
113737:9a-BCA-r1	11 February 2022	DA Stage BCA Assessment Report	
		Prepared by	Verified by
		Jarryd Beckman	Matthew Kemp
		Accredited Certifier Grade A1, No. BDC 3126 Building Regulations Consultant	Accredited Certifier Grade A1, No. BDC 0208 Senior Building Regulations Consultant
			

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1 BASIS OF ASSESSMENT

1.1. Location and Description

The building development, the subject of this report, is located at Lot 11: DP 1269398 (Kingscliff). The proposed development comprises the construction of a new two storey Ambulance Station which will include an enclosed plant room, medical and admin areas on the top level (ground floor) with a covered carparking area, office, meeting, sleeping pods and associated common areas on the level below (lower ground level).

As part of the development, a new driveway and pedestrian pathway will be constructed to provide access into the lower ground level. This will serve as a principal pedestrian entrance, while the main vehicle entrance into the ground floor plant area is via Turncok Street.

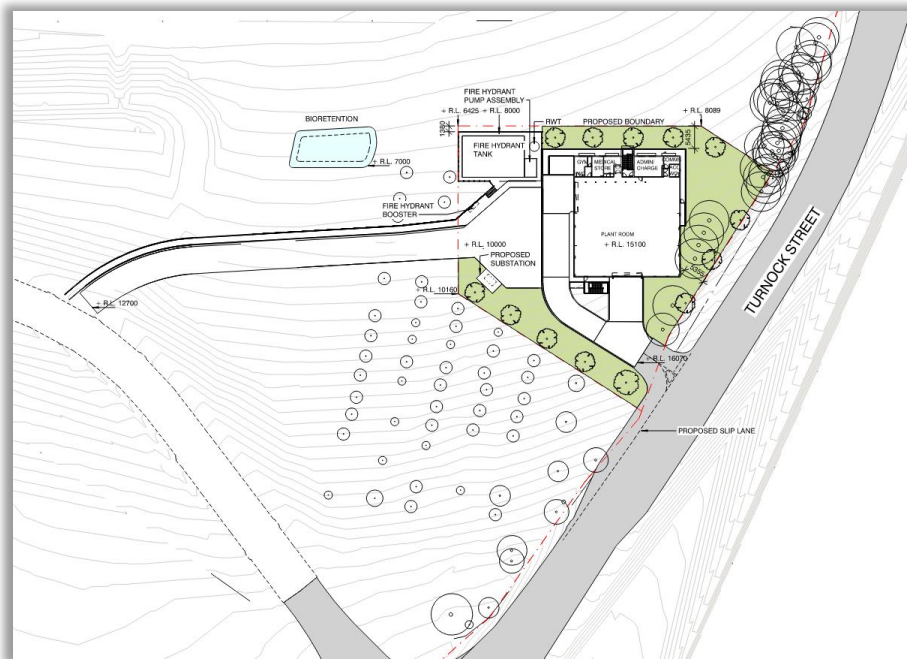


Photo sourced from djrd architectural drawings

1.2. Purpose

The purpose of this report is to assess the current design proposal against the Deemed-to-Satisfy Provisions of BCA 2019 Volume One Amendment 1, and to clearly outline those areas (if any) where compliance is not achieved, where areas may warrant redesign to achieve strict BCA compliance or where areas may be able to be assessed against the relevant performance criteria of BCA 2019.

1.3. Building Code of Australia

This report is based on the Deemed-to-Satisfy Provisions of the National Construction Code Series Volume One – Building Code of Australia, 2019 Edition (BCA) Amendment One incorporating the State variations where applicable. Please note that the version of the BCA applicable to new building works is the version applicable at the time of the lodgement of the Construction Certificate (CC) application to the Accredited Certifying Authority. The BCA is updated generally on a three-yearly cycle, starting from the 1st of May 2016.

1.4. Limitations

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- (a) the structural adequacy or design of the building;
- (b) the inherent derived fire-resistance ratings of any proposed structural elements of the building (unless specifically referred to); and
- (c) the design basis and/or operating capabilities of any proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- 1. the National Construction Code – Plumbing Code of Australia Volume 3;
- 2. the Disability Discrimination Act 1992;
- 3. The deemed-to-satisfy provisions of Part D3 and Clause F2.4 of the BCA (Refer to separate Access Report)
- 4. Demolition Standards not referred to by the BCA;
- 5. Work Health and Safety Act 2011;
- 6. Requirements of Australian Standards unless specifically referred to; and
- 7. Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like.

1.5. Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

2 BUILDING DESCRIPTION

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

2.1. Rise in Storeys (Clause C1.2)

The building has a rise in storeys of two (2).

2.2. Classification (Clause A6.0)

The building has been classified as follows.

Table 1. Building Classification

Class	Level	Description
3	Lower ground	Sleeping pods
5	Ground and lower ground	Offices, amenities, meeting and communal ancillary areas
7a	Ground and lower ground	Plant room and parking area used for the parking of the ambulances and other vehicles

Note: The sleeping pods have been classified as a Class 3 part, on the basis that the room will be a common place of transient living for a number of unrelated occupants i.e. ambulance operational staff.

2.3. Effective Height (Clause A1.0)

The building has an effective height of 5 metres.

2.4. Type of Construction Required (Table C1.1)

The building is required to be of Type C Construction.

2.5. Floor Area and Volume Limitations (Table C2.2)

The building does not exceed the maximum floor area and volume limits of:-

Class 5	Maximum Floor Area	3 000m ²
	Maximum Volume	18 000m ³
Class 7a	Maximum Floor Area	2 000m ²
	Maximum Volume	12 000m ³

Note: There are no maximum floor area or volume limitations for Class 3 parts as these classifications are required to have fire rated bounding construction under Specification C1.1.

2.6. Fire Compartments

The building is a single fire compartment.

2.7. Exits

The following points in the building have been considered as the exits:

- (a) The point of open space past the side egress door located adjacent to the northern sleeping pod.
- (b) The point of open space past the gate located adjacent to the common room (lower ground level).
- (c) The point of open space past the bottom riser of the external non-fire-isolated stairway.
- (d) The point of open space past the final egress door in the outdoor area (lower ground level).
- (e) The top riser of the internal and external non-fire-isolated stairway.

2.8. Location of Fire-source features

The fire source features for the subject development are:

North: The common boundary shared with the northern site.

South: The common boundary shared with the southern site.

East: The far side of Turnock Street.

West: The common boundary shared with western site.

3 BCA ASSESSMENT

3.1. General

An assessment of the Architectural design documentation against the Deemed-to Satisfy Provisions of the Building Code of Australia, 2019 (BCA) has been undertaken. It is important to note that only those items which are considered to be critical to the compliance of the proposed works have been discussed below. Any parts of the BCA2019 which have not been discussed are considered to be satisfied to an appropriate level and would readily be able to achieve compliance at Construction Certificate (CC) stage or are not applicable to the proposed development.

3.2. Dimensions and Tolerances

The BCA contains the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. BCA Logic's assessment of the plans and specifications has been undertaken to ensure the minimum dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as access for people with disabilities, stair and corridor widths and balustrade heights.

3.3. Section C – Fire Resistance

Clause C1.8 – Lightweight construction

Where lightweight construction is used for the fire rated bounding walls around the class 3 sleeping pods, then the lightweight construction must comply with Clause C1.8 and Specification C1.8.

Clause C1.10 – Fire Hazard Properties

The fire hazard properties for the proposed internal linings throughout the building shall be further assessed at CC stage to determine compliance with Specification C1.10.

Clause C2.2 – Fire compartment limitations

The floor area and volume of the proposed building does not exceed the maximum limitations as specified for a Type C building with Class 3, 5 and 7a parts.

Clause C2.8 – Separation of classifications in the same storey

The building is Type C Construction, therefore the FRL's for Class 3, 5 and 7a parts are generally the same, albeit the Class 3 sleeping pods will require FRL 60/60/60 bounding walls. Compliance is readily achievable, subject to fire compartment plans being provided at CC stage.

Clause C2.10 – Separation of lift shafts

The lift does not connect more than 2 storeys, therefore no fire separation is required.

Clause C2.13 – Electrical supply systems

Where the main switchboard located within the plant room sustains emergency equipment and there is no battery back-up provided to the equipment, then the switchboard shall be enclosed with construction that achieves an FRL of 120/120/120 with a self-closing -/120/30 fire door. Emergency equipment includes but not limited to; control and indicating equipment i.e. fire indicator panels that form part of a smoke detection system (see comments under Clause E2.2).

Clause C2.14 – Public corridors in Class 2 and 3 buildings

The Class 3 sleeping pods discharge onto a common corridor, however the corridor is less than 40 metres long, therefore no additional smoke separation is required.

Clause C3.11 – Bounding construction: Class 3 buildings

The building is Type C Construction, therefore the doorways from the Class 3 sleeping pods which open into the corridor must be protected with a self-closing, tight fitting, solid core door, not less than 35 mm thick.

Clause C3.15 – Openings for service installations:

Where services pass through fire rated elements, they must be protected in accordance with Specification C3.15.

Specification C1.1 – Fire Resisting Construction:

To satisfy the fire rating provisions of Type C Construction, the only elements required to achieve an FRL are the bounding walls of the sleeping pods (including the common corridor) as well as the ground floor slab. With regards to the bounding walls of the sleeping pods and adjacent corridor, the walls must achieve an FRL of 60/60/60 and extend-

- (i) to the underside of the FRL 30/30/30 floor above.

3.4. Section D1 & D2 – Provision for Escape & Construction of Exits

Clause D1.4 – Exit travel distances:

With reference to the designated exits outlined in section 2.7 of this report and Clause D1.15, all points throughout the Class 5 and 7a parts are located within 20 metres (Class 7a parts) or 30 metres (Class 5 parts) of an exit, or within 20 metres of a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits does not exceed 40 metres. With regards to the travel distances from the Class 3 sleeping pods, the entry doors are located no further than 20 metres from a point of open space located along the northern pathway, therefore compliance with Clause D1.4 throughout the entire building is achieved.

Clause D1.5 – Distance between alternative exits:

Where alternative exits are relied upon throughout the Class 5 and 7a parts, the distance between the alternate exits do not exceed 60 metres, nor are they located within 9 metres of each other.

Clause D1.6 – Dimensions of exits and paths of travel to exits:

The unobstructed height throughout all exits and paths of travel to exits must be no less than 2 metres, except for a doorway where a height of 1980mm is permitted. Furthermore, all egress widths must maintain a clear distance of 1 metre, except doorways are permitted to have a reduced width of 750 mm (when the doorway is deemed non-accessible).

Clause D1.9 – Travel by non-fire-isolated stairways or ramps:

The travel distances from the ground floor via the non-fire-isolated stairways do not exceed 80 metres and the discharge point is no further than 20 metres from a point of open space.

Clause D1.10 – Discharge from exits:

All required exits are shown to discharge onto a minimum 1-metre-wide pathway that provides egress to the road or open space. The grades of the paths of travel to a road shall be shown on the CC plans to confirm if handrails are required.

Clause D2.7 – Installations in exits and paths of travel:

Where there are electricity meters, distribution boards, central telecommunications distribution boards or equipment located in a required exit or along a path of travel to a required exit or corridor, then the services and/or equipment must be enclosed by non-combustible construction or a fire-protective covering with the doorways and other openings suitably smoke sealed in accordance with Clause D2.7.

Clause D2.8 – Enclosure of space under stairs and ramps:

Where the space underneath the internal or external non-fire-isolated stairways is enclosed to form a cupboard, then the space must be fire separated with construction achieving an FRL of 60/60/60. Compliance is readily achievable, subject to further details being provided at CC stage.

Clause D2.13 – Goings and risers:

The non-fire-isolated stairways in the building are capable of complying, subject to stair section details being provided at CC stage to confirm compliance with this clause.

Clause D2.15 – Thresholds:

The thresholds of all doorways must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless the door opens to open space and the threshold is provided with a threshold ramp or step ramp in accordance with AS 1428.1-2009.

Clause D2.16 – Barriers to prevent falls:

There have been no details provided to assess the barriers were there is a fall greater than 1 metre, however compliance will be readily achievable, subject to further details being provided at CC stage.

Clause D2.17 – Handrails:

Handrails will be required throughout the stairways and any ramp / pathway steeper than 1:20. Further details to be provided at CC stage.

Clause D2.20 – Swinging doors:

All doorways that serve as required exits swing in the direction of egress and would comply with the provisions of this clause.

Clause D2.21 – Operation of latch:

All doorways that serve as a required exit or are located along a path of travel to a required exit, must be readily opened without a key from the side that faces a person seeking egress and be -

- (i) a single hand downward action lever on a single device which is located between 900 mm and 1.1 metres from the floor and have a clearance between the handle and the back plate or door face of not less than 35 mm and not more than 45mm; or
- (ii) a single hand pushing action on a single device which is located between 900 mm and 1.2 metres from the floor surface.

3.5. Section E – Services and equipment

Clause E1.3 – Fire Hydrants:

The building has a combined floor area greater than 500m², therefore a fire hydrant system will be required to serve the building in accordance with AS 2419.1-2005. There is an onsite fire hydrant booster provided on the lower ground floor which is accessed via the proposed link road. Confirmation from the traffic engineer must be provided at CC stage to confirm that a fire truck will be able to access this fire hydrant. The location of the hydrant can readily achieve system coverage throughout the building.

Clause E1.4 – Fire hose reels:

The building has a combined floor area greater than 500m², therefore fire hose reels will be required in the Class 7a plantroom only. At least one fire hose reel must be located within 4 m of a required exit and coverage must be provided throughout all parts of the building. Coverage is achieved by all parts being located within 40 m of a fire hose reel (36 m of hose with a 4 m spray). Further details to be provided at CC stage.

Clause E1.6 – Portable fire extinguishers:

The building will be required to be protected with portable fire extinguishers in accordance with Clause E1.6 and AS 2444-2001. Further details to be provided at CC stage.

Clause E2.2 – General requirements (smoke detection):

The building contains a Class 3 part, therefore the building requires a smoke detection system in accordance with Clause E2.2a. To satisfy the provisions of Clause E2.2a and Specification E2.2a, the building will require either of the following detection systems:

- (i) A Clause 3 smoke alarm system throughout which is hardwired and powered from consumers main source and is in accordance with AS 3786 – 2014 and Clause 3 of Specification E2.2a; or
- (ii) A Clause 4 smoke detection system throughout which has a Fire Indicator Panel (FIP) installed which alerts a building occupant warning system in accordance with Clause 7 of Specification E2.2a. The smoke detection system must be installed in accordance with Clause 4 of Specification E2.2a and AS 1670.1-2015. Note: Where a Clause 4 smoke detection is installed, then the fire rating of the main switch board may be required if the switch board sustains power to the FIP and there is no battery backup.

Clause E4.2 – Emergency lighting and exit sign requirements:

The building will require emergency lighting and illuminate exits and/or directional signs in accordance with BCA Clauses E4.2, E4.4, E4.5, E4.6 and E4.8 and AS 2293.1-2005.

3.6. Section F – Health and AmenityClause F1.0 Deemed-to-satisfy provisions (weatherproofing)

Performance Requirement FP1.4, for the prevention of the penetration of water through external walls, must be complied with. There are no Deemed-to-Satisfy Provisions for this Performance Requirement in respect of external walls, therefore a performance solution will be required at CC stage.

Clause F1.1 – Stormwater drainage:

Stormwater drainage to comply with AS/NZS 3500.3:2018.

Clause F1.4 – External above ground membranes:

Waterproofing membranes for external above ground use to comply with AS 4654 Parts 1 and 2:2012.

Clause F1.5 – Roof coverings:

The plans show metal sheeting roofing. The metal sheet roofing must comply with AS 1562.1.

Clause F1.6 – Sarking:

Sarking-type materials used for weatherproofing must comply with AS/NZS 4200 Part 1 and 2:2017.

Clause F1.7 – Waterproofing of wet areas in buildings:

Wet areas must be constructed in accordance with AS 3740:2010 and Clause F1.7 of the BCA.

Clause F1.9 – Damp-proofing:

Moisture is to be prevented from reaching the walls above a damp-proof course, and the underside of the suspended floors. Where a damp-proof course is provided, it must consist of –

- (i) a material that complies with AS/NZS 2904; or
- (ii) impervious sheet material in accordance with AS 3660.1

Clause F1.10 – Damp-proofing of floors on the ground:

If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870:2011.

Clause F1.13 – Glazed assemblies:

The following glazed assemblies in the external walls, must comply with AS 2047-2014 requirements for resistance to water penetration:

- (i) Windows
- (ii) Swinging glazed doors
- (iii) Adjustable louvres
- (iv) Window walls with one piece framing

Clause F1.1 Facilities in residential buildings:

The Class 3 sleeping pods will have access to the common area sanitary facilities.

Clause F2.3 – Facilities in Class 3 to 9 buildings:

The client has advised that the Kingscliff Station will hold a maximum of 24 staff members. The two accessible compartments and Male and female bathrooms will provide sufficient facilities for the 24 staff members. It is noted that the unisex sanitary compartment adjacent to the gym is deemed to be a non-required compartment (i.e not required under the BCA) and is a request from the client.

Clause F3.1 – Height of rooms and other spaces:

The sections drawings show ceiling heights greater than 2.4 metres throughout which will achieve compliance with the provisions of this clause.

Clause F4.1 and F4.2 – Natural light:

Natural light is required to the Class 3 sleeping pods. The windows located in the eastern and northern elevations have an aggregate area greater than 10% of the floor area of the bedroom, therefore sufficient natural light is provided in accordance with Clause F4.2.

Clause F4.4 – Artificial lighting:

Artificial Lighting must be provided to all areas / rooms and be installed in accordance with AS/NZS 1680.0:2009.

Clause F4.5 – Ventilation of rooms:

All rooms must be provided with Clause F4.6 compliant natural ventilation **OR** a mechanical ventilation or air-conditioning system complying with AS 1668.2:2012. The plant room is considered to be an enclosed carpark, therefore this part of the building must be provided with mechanical ventilation complying with AS 1668.2; or a system of natural ventilation complying with Section 4 of AS 1668.4.

Part F5 – Sound Transmission and Insulation

The bounding walls of the Class 3 sleeping pods that are adjacent to corridor and WC will require an Rw (airborne) not less than 50 and the wall which separates the two sleeping pods will require an Rw + Ctr (airborne) not less than 50. The doorway in the sleeping pods which opens into the public corridor must achieve an Rw rating no less than 30.

3.7. Section J – Energy Efficiency

The separating wall between the plantroom and the conditioned spaces must comply with the building fabric provisions of J1 of the BCA2019. Where openings are constructed within the envelope of the conditioned part of the building, suitable seals shall be installed around the operable windows and external doors in accordance with the provisions of J3 of the BCA2019.

4 STATEMENT OF COMPLIANCE

The architectural design documentation as referred to in this report have been assessed against the applicable provisions of the Building Code of Australia, (BCA) and it is considered that such documentation either complies or is capable of complying with the relevant provisions of the BCA, for the purposes of a Development Application (DA).

ANNEXURE A DESIGN DOCUMENTATION

Annexure A – Design Documentation

This report has been based on the following design documentation.

Table 2. Architectural Plans

Architectural Plans Prepared by djrd architects			
Drawing Number	Revision	Date	Title
0000	D	11.02.22	Cover Sheet
0001	D	11.02.22	Site Analysis
0101	D	11.02.22	Demolition Plan
0102	D	11.02.22	Proposed Site Plan
1101	D	11.02.22	Ground Floor General Arrangement Plan
1102	D	11.02.22	Lower Ground Floor General Arrangement Plan
1103	D	11.02.22	Roof Plan
2001	D	11.02.22	Elevations
2002	D	11.02.22	Elevations
2501	D	11.02.22	Sections
2502	D	11.02.22	Sections
9001	D	11.02.22	Artist Impression

ANNEXURE B ESSENTIAL SERVICES

Annexure B - Essential Services

The following fire safety measures are required to be installed in the building. The following table may be required to be updated as the design develops and options for compliance are confirmed.

Item	Essential Fire and Other Safety Measures	Standard of Performance
Fire Resistance (Floors – Walls – Doors – Shafts)		
1.	Fire seals protecting openings in fire resisting components of the building	BCA2019 C3.15 (Openings for service installations) BCA2019 C3.16 (Construction joints) BCA2019 Spec C3.15 AS1530.4:2014 & AS4072.1-2005
2.	Fire doors – FRL -/120/30 to be installed if the main switch board sustains emergency equipment and no battery backup is installed	BCA2019 (Electricity Supply Systems)
3.	Lightweight construction <ul style="list-style-type: none"> > FRL 120/120/120 Fire Rating of Electrical Switchboards (if deemed required) > FRL 60/60/60 construction around the cupboard located underneath the non-fire-isolated stairway (if deemed required) > FRL 60/60/60 fire rated bounding walls around the sleeping pods and adjacent corridor extended to the underside of; <ul style="list-style-type: none"> ○ The ground floor achieving an FRL of 30/30/30. 	BCA2019 C1.1, Spec. C1.1 BCA2019 C1.8, Spec C1.8 BCA2019 D2.8 (Enclosure of space under stairs and ramps) BCA2019 C3.11 (Bounding Construction) BCA2019 C2.12 (Separation of Equipment) AS1530.4:2014
4.	Solid core doors <ul style="list-style-type: none"> > Type 'C' Construction 	BCA2019 Spec. C3.4 C3.11 (Bounding Construction)
General		
5.	Portable fire extinguishers	BCA2019 E1.6 AS 2444–2001
General Egress		
6.	Warning & operational signs	BCA2019 D3.6 (Braille Exit Signs) (Note: E4.5 (Exit Signs))
Electrical Services		
7.	Automatic fire detection & alarm: <ul style="list-style-type: none"> > Clause 3 – AS 3786:2014 Smoke Alarm systems powered from consumer mains in accordance with AS 3786-2014; or > Clause 4 – AS 1670.1:2018 system throughout the building/part connected to a Clause 7 building occupant warning system. 	BCA2019 E2.2 , NSW Table E2.2a, Spec E2.2a Spec E2.2a - Clause 3 (Smoke alarm system) Spec E2.2a - Clause 4 (Smoke detection system)

Item	Essential Fire and Other Safety Measures	Standard of Performance
		Spec E2.2a - Clause 7 (BOWS)
8.	Emergency lighting	BCA2019 E4.2, E4.4 AS/NZS 2293.1:2018
9.	Exit signs	BCA2019 E4.5 (Exit Signs) BCA2019 E4.6 (Direction Signs) BCA2019 E4.8 (Design and Operation - Exits) AS/NZS 2293.1:2018
Hydraulic Services		
10.	Fire hydrant systems	BCA2019 E1.3 AS 2419.1:2005
11.	Hose reel systems (Class 7a Part)	BCA2019 E1.4 AS 2441:2005
Mechanical Services		
12.	1. Mechanical ventilation to carpark (if natural ventilation cannot be achieved)	BCA2019 E2.2, Table E2.2a Spec E2.2a



Access Assessment Report

Lot 11: DP 1269398 (Kingscliff)



Project:	Lot 11: DP 1269398 (Kingscliff)
Reference No:	113737:9b-Access-r1
Date:	11 February 2022
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Document Control




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113737:9b- Access-r1	11 February 2022	DA Stage Access Assessment Report
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1 BASIS OF ASSESSMENT

1.1. Location

The building development, the subject of this report, is located at Lot 11: DP 1269398 (Kingscliff). The proposed development comprises the construction of a new two storey Ambulance Station which will include an enclosed plant room, medical and admin areas on the top level (ground floor) with a covered carparking area, office, meeting, sleeping pods and associated common areas on the level below (lower ground level).

As part of the development, a new driveway and pedestrian pathway will be constructed to provide access into the lower ground level. This will serve as a principal pedestrian entrance, while the main vehicle entrance into the ground floor plant area is via Turncok Street.

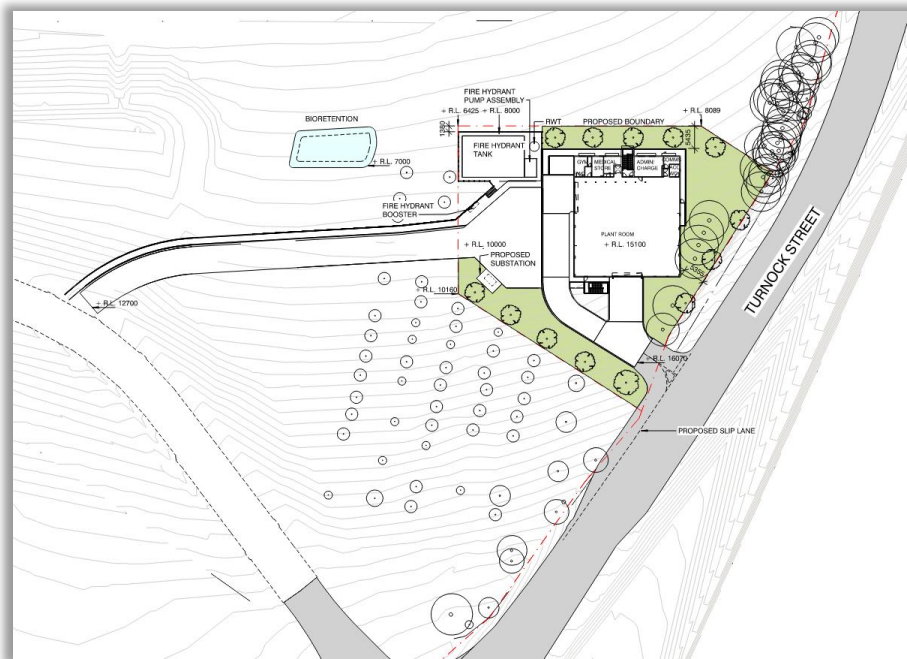


Photo sourced from djrd architectural drawings

1.2. Purpose

The purpose of this report is to assess the proposed building against the documents and their relevant Deemed to Satisfy requirements. The report is intended to clearly outline those areas where compliance is not achieved and provide recommendations to achieve compliance:

- > Disability Discrimination Act 1992 (DDA);
- > Disability Access to Premises Standards 2010 (Premises Standards);
- > Building Code of Australia 2019 (BCA2019) Volume 1 Amendment 1 – Part D3 and F2.4; and
- > Applicable Australian Standards AS1428.1:2009, AS1428.4.1:2009 and AS2890.6:2009.

1.3. Limitations

This report is limited to an assessment of the access and amenity provisions for people with a disability against the documents as outlined in 1.2 above. It is not an assessment of the proposal against all provisions of the BCA2019 and if this is required, a separate report will be necessary.

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- > The structural adequacy or design of the building;
- > The inherent derived fire-resistance ratings of any existing or proposed structural elements of the building (unless specifically referred to); and
- > The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- > The Disability Discrimination Act (it cannot be guaranteed that that a complaint under the DDA will not be made, however should the building comply with BCA2019 and the Premises Standard then those responsible for the building cannot be subject to a successful complaint);
- > BCA2019 Sections B, C, E, F, G, H, I, J, Parts D1 and D2;
- > Demolition Standards not referred to by the BCA2019;
- > Work Health and Safety Act;
- > Construction Safety Act;
- > Requirements of other Regulatory Authorities including, but not limited to, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like; and
- > This report does not assess the safety of the particular aspects of the building but merely the minimum standards called up by the documents outlined in Part 1.2 of this report.

1.4. Federal Disability Discrimination Act (DDA)

Disability is broadly defined and includes disabilities which are physical, intellectual, psychiatric, neurological, cognitive or sensory (a hearing or vision impairment), learning difficulties, physical disfigurement and the presence in the body of disease causing organisms.

All organisations have a responsibility, under the DDA, to provide equitable, dignified access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas included within the subject development.

The DDA applies nationally and is complaint based. While the Disability (Access to Premises – Buildings) Standards 2010 and the BC2019 are recognised as a design standard to satisfy certain aspects of the DDA, compliance with the BCA2019 and the referenced standards does not guarantee that a complaint will not be lodged.

1.5. Disability Access to Premises Standards (Premises Standards)

The Premises Standards intend to provide certainty for the building industry in relation to meeting the requirements for access in new and upgraded buildings. They only apply to elements addressed within the Standards. All other elements related to premises will still be subject to the existing provisions of the DDA.

The Premises Standards generally align with the BCA2019 and reference a range of Australian Standards relating to access and other associated matters.

They do not apply to existing buildings that are not undergoing upgrade, however they introduce the concept of the “Affected Part”. This means that new works need to be connected to the building’s Principal Pedestrian Entrance by an accessible path of travel. This can mean that upgrade to the building may be necessary even where none is proposed.

1.6. Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

1.7. Definitions

Accessible

Having features to enable use by people with a disability.

Accessway

A continuous accessible path of travel (as defined in AS 1428.1) to, into or within a building.

Continuous Accessible Path of Travel

An uninterrupted path of travel to, into or within a building providing access to all access facilities.

Luminance Contrast

The light reflected from one surface or component, compared to the light reflected from another surface or component.

Ramp

An inclined surface on a continuous accessible path of travel between two landings with a gradient steeper than 1 in 20 but not steeper than 1 in 14.

Tactile Indicators

Tactile Ground Surface Indicators (TGSIs)

Truncated cones and/or bars installed on the ground or floor surface, designed to provide pedestrians who are blind or vision-impaired with warning or directional orientation information

2 KEY COMPLIANCE CONSIDERATION

2.1. General

The following is a summary of all the individual elements that relate directly to the ability of a person with a disability to access all the portions of the building required to be accessible.

Accessibility has been assessed against the documents outlined in Part 1.2 of this Report. The Annexures to this report provides a detailed assessments of the proposal against ALL relevant Deemed-to-Satisfy Provisions and prescriptive requirements

Note: It is important that the Annexures are read in conjunction with the items below, as some matters may not have had sufficient information provided to allow a detailed assessment to be undertaken.

The abbreviations outlined below have been used in the following tables.

2.2. Classification

Under the provisions of Parts A6 of BCA2019 and Part A4 of the Access Code, the building has been classified as follows:

Table 1. Building Classification

Class	Level	Description
3	Lower ground	Sleeping pods
5	Lower ground and ground	Offices, amenities, meeting and communal ancillary areas
7a	Lower ground and ground	Plant room and parking area used for the parking of the ambulances and other vehicles

Note: The relief room has been classified as a Class 3 part, on the basis that the room will be a common place of transient living for a number of unrelated occupants i.e. operational ambulance staff.

2.3. Dimensions and Tolerances

The Premises Standards and BCA contains the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. BCA Logic's assessment of the plans and specifications has been undertaken to ensure the minimal dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as access for people with disabilities, stair and corridor widths and balustrade heights.

2.4. Areas Required to be Accessible

The following areas of the building are required to be accessible:

Table 2. Areas Required to be Accessible

Area / Room	Description
Class 3 relief room	An exemption under Clause D3.4 has been assumed, on the basis that the occupants of the sleeping pods will be operational ambulance employees. It is readily assumed that the operational ambulance workers will be able-bodied persons who will not require the room to have accessible features.
Class 5 Offices, amenities, meeting and communal ancillary areas	To and within all areas normally used by the occupants
Class 7a Plant room used for the parking of the ambulances	There are no accessible carparking spaces in the plantroom, therefore access is not required, however there is an accessible carparking space located in the lower ground carpark, therefore access from this space to the building must be provided.

Note: The limitations and exemptions of Clauses D3.2, D3.3 and D3.4 of the BCA2019 and Access Code been considered where applicable in the process of developing the above table.

3 STATEMENT OF COMPLIANCE

The design documentation as referred to in this report has been assessed against the applicable provisions for Accessibility as outlined in Part 1.2 of this report. It is considered that such documentation complies or is capable of complying (as outlined in Part 2 of this Report) with those documents, for the purposes of a Development Application.

Annexure A – Design Documentation

This report has been based on the following design documentation.

Table 3. Architectural Plans

Architectural Plans Prepared by djrd architects			
Drawing Number	Revision	Date	Title
0000	D	11.02.22	Cover Sheet
0001	D	11.02.22	Site Analysis
0101	D	11.02.22	Demolition Plan
0102	D	11.02.22	Proposed Site Plan
1101	D	11.02.22	Ground Floor General Arrangement Plan
1102	D	11.02.22	Lower Ground Floor General Arrangement Plan
1103	D	11.02.22	Roof Plan
2001	D	11.02.22	Elevations
2002	D	11.02.22	Elevations
2501	D	11.02.22	Sections
2502	D	11.02.22	Sections
9001	D	11.02.22	Artist Impression

Annexure B - Premises Standards & BCA Assessment

N/A	Not Applicable. The Deemed-to-Satisfy clause is not applicable to the proposed design.
Complies	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
CRA – Refer Annexure C	'COMPLIANCE READILY ACHIEVABLE'. It is considered that there is not enough information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, with further design development, compliance can readily be achievable. This item is to be read in conjunction with the BCA Specification included within Annexure C of this report.
FI	Further Information is necessary to determine the compliance potential of the building design.
PS	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DNC	Does Not Comply.
Noted	BCA Clause simply provides a statement not requiring specific design comment or confirmation.

Building Code of Australia 2019 Assessment Summary (BCA2019) / Premises Standards (Access Code)

Table 4. BCA 2019 Summary

Clause	Clause Requirements	Comment	Status
Section D: Access and Egress			
Part D3 – Access for People with a Disability			
D3.0: Deemed-to-Satisfy Provisions	Informational		Noted
D3.1: General Building Access Requirements	<p>The building or parts are required to be accessible. Accessible meaning having the features necessary to permit its use by persons with a disability.</p> <p>Class 3 –</p> <p>From a pedestrian entrance to at least 1 floor containing SOU's, to the entrance doorway of each SOU located on that level, and any other level served by a passenger lift or an accessible ramp.</p> <p>To and within not less than 1 of each type of room or space for use in common by the residents</p> <p>To and within at least 1 SOU's</p> <p>Class 5 –</p> <p>To and within all areas normally used by the occupants.</p> <p>Class 7 –</p> <p>To and within any level containing accessible carparking spaces.</p>	<p>Class 3 parts –</p> <p>An exemption under Clause D3.4 has been assumed, on the basis that the occupants of the relief room will be operational ambulance employees. It is readily assumed that the operational ambulance workers will be able-bodied persons who will not require the room to have accessible features.</p> <p>Class 5 parts –</p> <p>Disabled access is capable of being achieved to and within the Class 5 parts of the building. Dimensioned details shall be provided at CC stage to confirm the external pathway grades and the circulation zones at the doorways.</p> <p>Class 7a –</p> <p>Access from accessible carparking space on the lower ground floor to the building can be readily achieved.</p>	<p>CRA – Refer Annexure C</p> <p>CRA – Refer Annexure C</p> <p>CRA – Refer Annexure C</p>
D3.2: Access to Buildings	<p>(a) An accessway must be provided to a building required to accessible –</p> <p>(i) from the main points of a pedestrian entry at the allotment boundary; and</p>	<p>The proposed accessway is via the new link road/driveway located on the lower ground floor level. It is noted that the driveway from Turnock Street does not serve as a pedestrian entrance or egress path (vehicular access only), therefore clause D3.2(b)(ii) is not</p>	CRA – Refer Annexure C

Section D: Access and Egress			
	<ul style="list-style-type: none"> (ii) from any required accessible carparking space on the allotment. (b) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and – <ul style="list-style-type: none"> (i) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and (ii) in a building with a total floor area more than 500 m², a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance, except for pedestrian entrances serving only areas exempted by D3.4. (c) For the purposes of (c)— <ul style="list-style-type: none"> (i) an accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where— <ul style="list-style-type: none"> (A) all doorways serve the same part or parts of the building; and (B) the distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D3.2); and (ii) a doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D3.2). (d) Where a doorway on an accessway has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1. 	<p>considered to be applicable. Details of the grades will be required at CC stage to confirm compliance with AS 1428.1-2009.</p> <p>The accessway from the internal accessible carparking space to the buildings entrance achieves compliance.</p> <p>The entrance doors will readily achieve the required unobstructed clearance of 850mm and wheelchair circulation clearances to AS 1428.1.</p>	<p>Complies</p> <p>CRA – Refer Annexure C</p>

Section D: Access and Egress			
D3.3: Parts of Buildings to be Accessible	<ul style="list-style-type: none"> > Walkways and ramps must comply with clause 10 of AS 1428.1-2009. > Non-fire-isolated stairways must comply with Clause 11 of AS 1428.1-2009. > Fire-isolated stairways must comply with clause 11 (f) & (g) of AS 1428.1-2009. <p>The accessways must be provided with:</p> <ul style="list-style-type: none"> > Passing spaces (1800x2000mm) complying with AS1428.1 at 20m max. intervals where direct line of sight is not available. > Turning spaces (1540x2070mm) complying with AS1428.1 within 2m of the end of accessways (including corridors or the like); and at 20m max. intervals along an accessway. > An intersection of accessways satisfies the spatial requirements for a passing and turning space. 	<p><u>Walkways and ramps</u></p> <p>No details of the external walkways/pathways have been provided, however where the grades are steeper than 1:20, then double handrails and tactiles will be required in accordance with AS 1428.1-2009. Details to be provided at CC stage.</p> <p><u>Non-fire-isolated stairs</u></p> <p>The building is required to be accessible and has two sets of non-fire-isolated stairs that will require double handrails and tactiles in accordance with AS 1428.1-2009. Compliance is readily achievable, subject to further details being provided at CC stage.</p> <p><u>Fire-isolated stairways</u></p> <p>The building does not have any fire-isolated stairs.</p> <p><u>Turning spaces</u></p> <p>The internal corridors throughout the building allow sufficient space for a wheelchair to make a 180- degree turn by achieving a minimum space of 1540mm x 2070mm.</p>	<p>CRA – Refer Annexure C</p> <p>CRA – Refer Annexure C</p> <p>N/A</p> <p>Complies</p>
D3.4: Exemptions	<p>Certain areas can be exempted under this clause if pose a health and safety risk for people with disability and /or access would be inappropriate because the particular purpose for which this area is used (e.g. plant rooms, service areas, heavy / toxic item storage, etc.)</p>	<p>The following areas within this development have been identified as potential excepted areas, subject to certifier's approval:</p> <ul style="list-style-type: none"> > The Class 3 sleeping pods, on the basis that the occupants of the relief room will be operational ambulance employees. It is readily assumed that the operational ambulance workers will be able-bodied persons who will not require the room to have accessible features. 	<p>Noted</p>
D3.4: Accessible Car Parking	<p>Accessible carparking spaces to be in compliance with this Clause and AS2890.6 in the proportion required by BCA2019.</p>	<p>There is an accessible carparking space provided on the lower ground floor. The space has an adjacent shared zone and is capable of achieving compliance with Clause D3.5 and AS 2890.6.</p>	<p>CRA – Refer Annexure C</p>

Section D: Access and Egress			
D3.6: Signage	<p>> Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access, or deafness as appropriate, must identify each:</p> <ul style="list-style-type: none"> ○ sanitary facility; and ○ identify each door required by E4.5 to be provided with an exit sign and state "Exit" and "Level" and either: <ul style="list-style-type: none"> (aa) the floor level number; or (bb) a floor level descriptor; or (cc) a combination of (aa) and (bb) <p>> Signage to accessible sanitary facilities must identify if the facility is suitable for left or right handed use; and</p> <p>> Signage to identify an ambulant accessible facility in accordance with AS 1428.1 must be located on the door of the facility.</p> <p>Where a bank of facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex facility.</p>	<p>Signage details are to be provided at CC stage for the accessible sanitary compartment and the ambulant compartments in the male and female bathrooms. Compliance is readily achievable.</p>	CRA – Refer Annexure C
D3.7: Hearing Augmentation	N/A	N/A	N/A
D3.8: Tactile Indicators	N/A	<p>Where non-fire-isolated stairs are constructed and/or ramps steeper than 1:20, then tactile indicators will be required to be installed in accordance with this clause. Compliance is readily achievable, subject to further details at CC stage being provided.</p>	CRA – Refer Annexure C

Section D: Access and Egress			
D3.9: Wheelchair seating spaces in Class 9b Assembly Buildings	N/A	N/A	N/A
D3.10: Swimming Pools	N/A	N/A	N/A
D3.11: Ramps	On an accessway a series of connected ramps must not have a combined vertical rise of 3.6m and a landing for a step ramp must not overlap a landing for another step ramp or ramp.	The ramps located along the new link road/driveway must not have a combined rise more than 3.6m. Details to be provided at CC stage.	CRA – Refer Annexure C
D3.12: Glazing on an Accessway	On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.	Compliance is readily achievable, subject to a detailed window/door schedule being provided at CC stage to confirm the colour and location of the glazing strips on the fully glazed doorways and sidelights located along an accessway. The glazing strips shall achieve a minimum 30% luminance contrast to the floor surface on the adjoining side of the doorway.	CRA – Refer Annexure C

Section F: Healthy and Amenity			
Part F2 – Sanitary and Other Facilities			
F2.0: Deemed-to-Satisfy Provisions	Informational	Informational	Noted
F2.4: Accessible Sanitary Facilities (including Table F2.4)	<p>In a building required to be accessible—</p> <p>(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and</p> <p>(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and</p>	<p>There is an accessible sanitary compartment proposed on the lower ground and ground floor levels. Based on scaled measurements, the compartments can readily achieve the required dimensions for an accessible compartment in accordance with AS 1428.1-2009.</p> <p>Further dimension details and elevations will be required at CC stage to confirm compliance.</p>	CRA – Refer Annexure C

Section F: Healthy and Amenity			
	<p>(c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and</p> <p>(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and</p> <p>(e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and</p> <p>(f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and</p> <p>(g) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations.</p>	Each of the male and female bathrooms have an ambulant sanitary compartment proposed. The compartments are both capable of achieving compliance with AS 1428.1-2009.	CRA – Refer Annexure C
F2.9: Accessible adult change facilities	N/A	N/A	N/A

Annexure C - Compliance Specification

Design Certification

Further due to the level of detail provided at this stage the following items are to form part of a design statement or specification:

General

1. On an accessway where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights or glazing capable of being mistaken for a doorway or opening will be clearly marked and comply with Clause 6.6 of AS1428.1-2009. A solid non-transparent contrasting line not less than 75mm wide is to extend across the full width of the glazing panel. The lower edge of the contrasting line is to be located between 900-1000mm above the plane of the finished floor level. The contrasting line is to provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2 metres of the glazing on the opposite side.
2. All doorways will have a minimum luminance contrast of 30% in accordance with Clause 13.1 of AS1428.1-2009.
3. Fixtures and fittings in accessible sanitary facilities will be provided and installed in accordance Clause 15 of AS1428.1-2009.
4. Fixtures and fittings in ambulant facilities will be provided and installed in accordance Clause 16 of AS1428.1-2009.
5. Walkways will comply with Clause 10 of AS1428.1-2009.
6. For the walkways, the floor or ground surface abutting the sides of the walkway will be firm and level of a different material to that of the walkway at the same level and follow the grade of the walkway and extend horizontally for a minimum of 600mm, or be provided with a kerb or kerb rail in accordance with Clause 10.2 of AS1428.1-2009.
7. Stairways will comply with Clause 11 of AS1428.1-2009.
8. Grabrails will comply with Clause 17 of AS1428.1-2009.
9. Accessible car spaces will achieve compliant headroom clearances in accordance with Clause 2.4 of AS2890.6-2009.
10. Demarcation will be provided in the accessible car space and adjacent shared zone in accordance with Clause 3.1 and 3.2 of AS2890.6. Refer to Annexure B1 for a diagrammatic explanation.
11. Bollards will be provided in the shared disabled car space area in accordance with Clause 2.2.1(e) of AS2890.6-2009. Refer to Annexure B1 for a diagrammatic explanation.
12. Switches and power points will comply with Clause 14 of AS1428.1-2009.
13. Floor and ground floor surfaces on accessible paths and circulation spaces including the external areas will comply with Clause 7 of AS1428.1-2009. Any level difference over 3mm must be ramped according AS1428.1 Clause 10.5.
14. Braille and tactile signage will comply with BCA2019 Clause D3.6.
15. Signage will have to comply with Clause 8 of AS1428.1-2009.
16. Door handles and the like, will be in accordance with Clause 13.5 of AS1428.1-2009.