Concept Fire Engineering Strategy
171 Forest Way, Belrose NSW 2085

Revision: CFES 1.2
Date: 23 May 2022
Project Number: S21023
Prepared for: Forest Ridge

PO Box 442, Manly NSW 2095 | e: info@mcdfire.com.au | www.mcdfire.com.au

Document Control

Document Control and Verification					
Revision	**Date**		**Prepared by**	**Reviewed By**	**Approved By**
CFES 1.0	1/06/2021	***Name:***	**Lin Li**	**Lei Wang** C10: BDC3165	**Mark McDaid** C10: BDC2165
		Signature:			
		Comment:	Issue 1.0 - Concept Fire Engineering Strategy / Feasibility		
CFES 1.1	11/06/2021	***Name:***	**Lin Li**	**Lei Wang** C10: BDC3165	**Mark McDaid** C10: BDC2165
		Signature:			
		Comment:	Issue 1.1 - Updated Concept Fire Engineering Strategy / Feasibility incorporating design change.		
CFES 1.2	23/05/2022	***Name:***	**Lin Li**	**Lei Wang** C10: BDC3165	**Mark McDaid** C10: BDC2165
		Signature:			
		Comment:	Issue 1.2 - Updated Concept Fire Engineering Strategy / Feasibility incorporating design change.		

Executive Summary

Forest Ridge has appointed MCD Fire Engineering Pty Ltd to carry out an initial review of the findings of concept drawings of the subject works from a fire engineering viewpoint. The intention of this report is to provide some preliminary fire engineering advice and conceptual fire engineering feasibilities for the proposed residential development at 171 Forest Way, Belrose NSW 2085.

The matters detailed in the BCA Assessment relate to a high-level fire and life safety review and the following matters have been identified as having a scope to rectify that does not have to strictly comply with the deemed-to-satisfy (DtS) provisions of the BCA. As such Performance Solutions are sought from a C10 Accredited Fire Safety Engineer to provide an alternative scope of works to address the variations to the DtS Provisions of the BCA/NCC.

The intent of this conceptual report is to provide a high-level fire engineering input for the project in order to document the likely fire safety measures for the building in order to achieve compliance with the relevant Performance Requirements of the BCA. The following is the currently agreed high level scope for fire engineering, the performance requirements listed in the tables below are the minimum Performance Requirements that must be considered, should the fire engineer identify more relevant Performance Requirements these are to be also considered.

Table 1: Summary of Performance Solution

No	DtS Clause	Description of non-compliance	Performance Requirement (A2.2(3) & A2.4)	Method of meeting Performance Requirements (A2.1)	Assessment Method (A2.2(2))
1.	C2.14	To review the length of public corridors on residential area exceeding 40 m (up to 46 m) without separation of smoke doors.	CP1, CP2	A2.1(1)	A2.2(2)(d)
2.	D1.4	To review the extended travel distance from carpark to a single exit up to 34 m in lieu of 20 m.	DP4, EP2.2	A2.1(1)	A2.2(2)(d)
3.	D1.7(b)	To review the fire-isolated stairs discharging into internal areas not complying with the requirement of BCA D1.7(b).	DP4, DP5, EP2.2	A2.1(1)	A2.2(2)(b)(ii)
4.	D1.7(c)	To review the egress routes following the discharge of the fire-isolated stairs being located within 6 m of unprotected openings.	DP4, DP5, EP2.2	A2.1(1)	A2.2(2)(b)(ii)

Contents

1 Introduction

1.1 Objective

Forest Ridge has appointed MCD Fire Engineering Pty Ltd to carry out an initial review of the findings of concept drawings of the subject works from a fire engineering viewpoint. The intention of this report is to provide some preliminary fire engineering advice and conceptual fire engineering feasibilities for the proposed residential development at 171 Forest Way, Belrose NSW 2085.

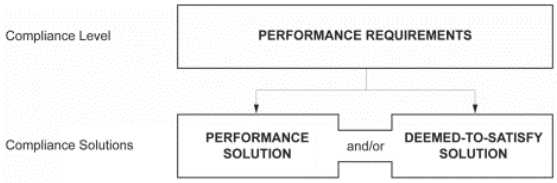
1.2 Applicable Legislation

The primary legislation applicable to the development is the National Construction Code (NCC), Volume One aka as the BCA 2019 (Amendment 1): Building Code of Australia. The BCA provides a set of prescriptive requirements, *Deemed-to-Satisfy* (DtS) Provisions that if meet, are deemed an acceptable level of safety and achieve compliance with the Performance Requirements of the BCA. Deviations from the BCA DtS Provisions must be shown and be addressed as a Performance Solutions to demonstrate they comply with the BCA Performance Requirements.

This Report is not a Performance Solution Report, but rather a Conceptual Fire Engineering Strategy that sets down the intentions or proposed fire safety strategy and likely fire engineering Performance Solution requirements.

The assessment of a Performance Solution can be undertaken using a variety of methods. These are defined in BCA Clause A2.2(3) and A2.4. One or more, or a combination of these methods can be adopted to determine whether the proposed Performance Solution complies with the BCA Performance Requirements. The relevant BCA Performance Requirements are determined in accordance with BCA Clause A2.2(3) and A2.4. Compliance with BCA Performance Requirements is undertaken in accordance with BCA Clause A2.1. BCA Clause A2.1 and A2.2(2) are presented below in Table 2.

Table 2: Methods of Meeting the Performance Requirements and Assessment Method for Performance Solution

BCA Clause A2.1	BCA Clause A2.2(2)
Performance Requirements are satisfied by one of the following— (1) A Performance Solution; or (2) A Deemed-to-Satisfy Solution; or (3) A combination of (1) and (2) as shown below:  	A Performance Solution must be shown to comply with the relevant Performance Requirements through one or a combination of the following Assessment Methods: (a) Evidence of suitability in accordance with Part A5 that shows the use of a material or product, plumbing and drainage product, form of construction or design meets a Performance Requirement. (b) Verification Methods including the following: (i) the Verification Methods in the NCC; or (ii) Other Verification Methods, accepted by the appropriate authority that show compliance with the relevant Performance Requirements (c) Expert Judgement (d) Comparison with the Deemed-to-Satisfy Provisions

The following New South Wales Legislation is applicable:

- NSW Environmental Planning and Assessment Act, 1979 and subsequent amendments
- NSW Environmental Planning and Assessment Regulation, 2000 and subsequent amendments

1.3 Stakeholders and Documentation

The relevant stakeholders in the design of this development are listed in Table 3 below.

Table 3: Relevant Stakeholders

Name	Organisation	Role
Steve Horrell	Forest Ridge	Client
TBA	Barry Rush & Associates Pty Ltd	Architect
TBA	TBA	Principal Certifier
Mark McDaid, Lei Wang, Lin Li	MCD Fire Engineering Pty Ltd	Fire Engineering

1.3.1 Use and Location

The proposed building is located at 171 Forest Way, Belrose NSW 2085. The proposed building consists of Class 2 (Residential Apartments) and Class 7a (Carpark). The Fire Service can access the building from Forest Way as shown in Figure 1.

Figure 1: Map showing brigade access

1.3.2 Size and shape

The site steps down from street level (Level 8) at Forest Way at the front (RL 167.0) to Level 1 at rear (RL 146.6). There are 6 blocks (A-F), each not more than 4 storeys but overall being connected along the slope. The total gross floor area of the building is approximately 5,399 m^2.

Refer to Appendix A for more details.

1.3.3 Exit arrangements

The exit provisions for each levels are shown in Figure 2 - Figure 10.

Note: the "green arrows" used in the following figures are illustrative only and not the confirmed exit / directional exit sign posting locations (to be confirmed by electrical engineer).

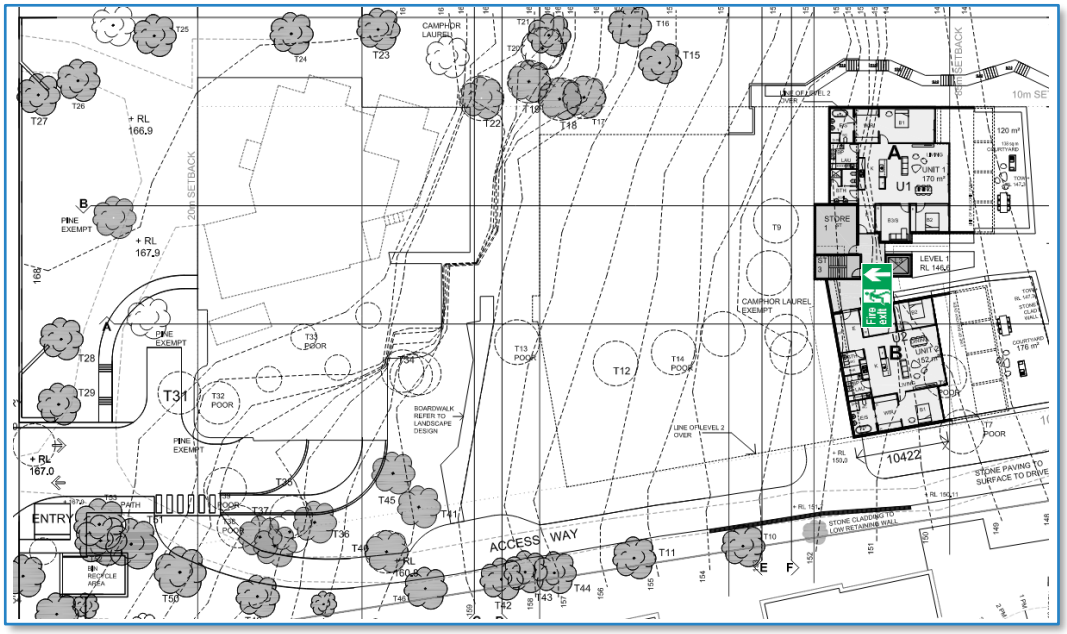


Figure 2: Exit provisions on Level 1

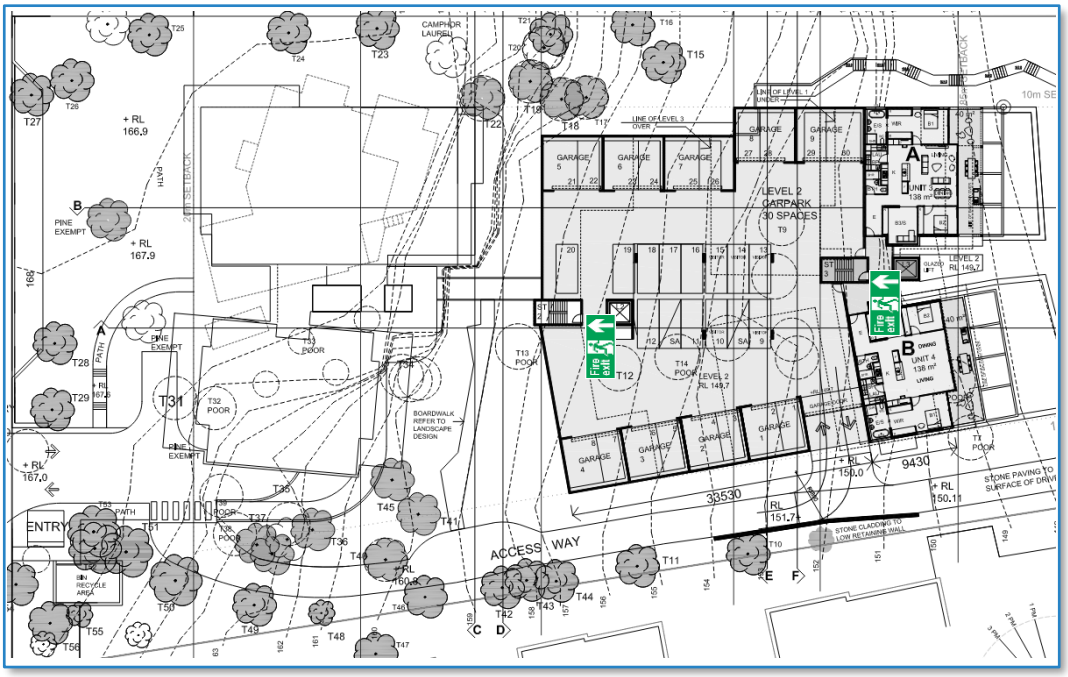


Figure 3: Exit provisions on Level 2

Figure 4: Exit provisions on Level 3

Figure 5: Exit provisions on Level 4

Figure 6: Exit provisions on Level 5

Figure 7: Exit provisions on Level 6

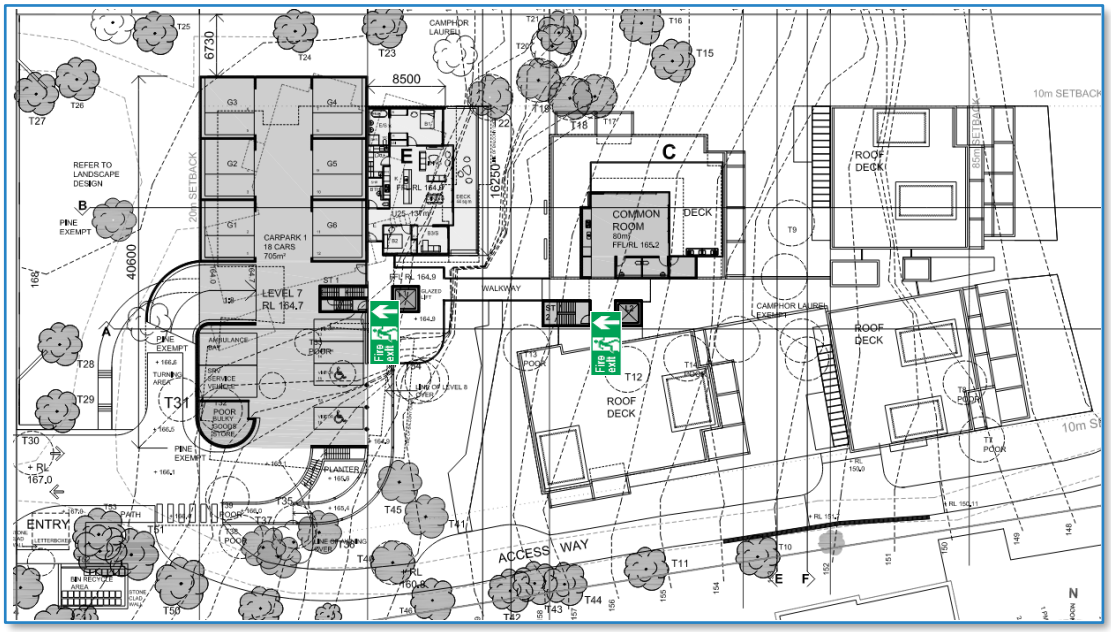


Figure 8: Exit provisions on Level 7

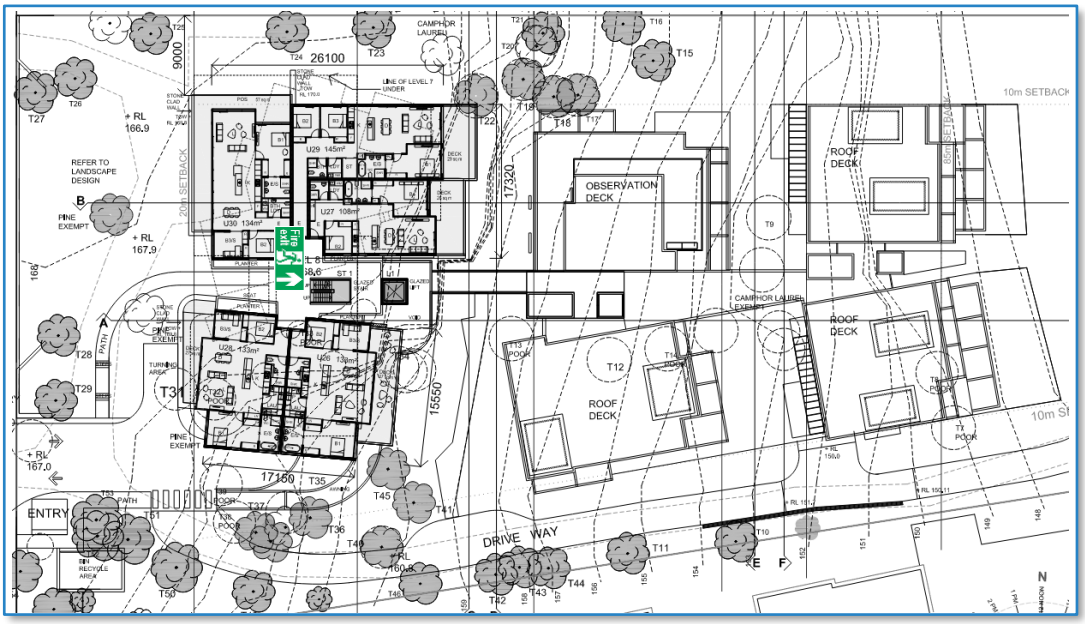


Figure 9: Exit provisions on Level 8

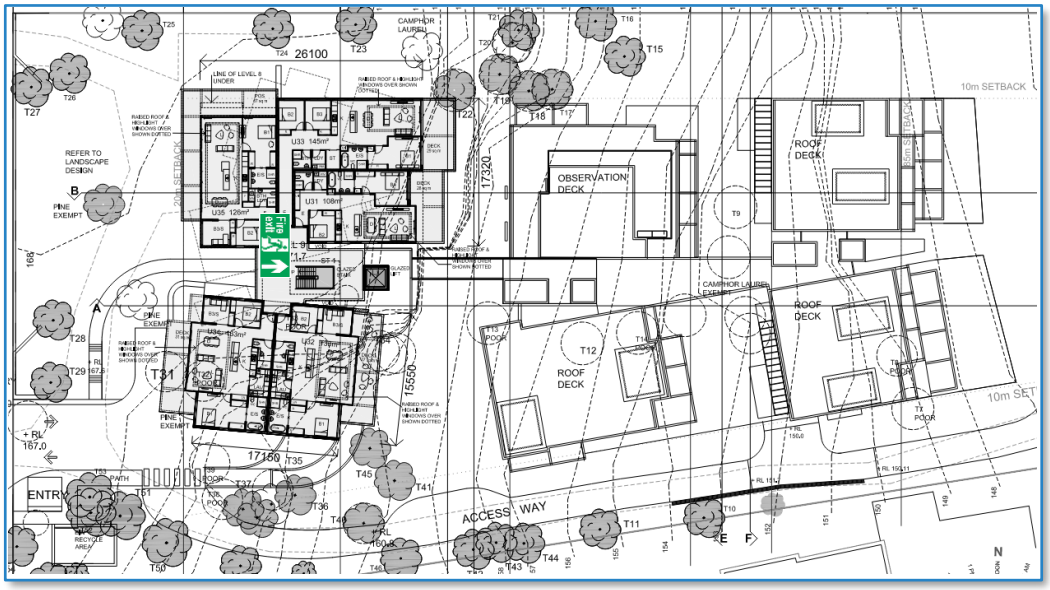


Figure 10: Exit provisions on Level 9

1.4 Occupant Characteristics

Building occupants can generally be classified into separate distinctive groups; residents and visitors. All occupants are assumed to be representative of the general population with no specific or unusual distributions in respect to gender, age and physical or mental attributes. A detailed description is contained in Table 4 below:

Table 4: Occupancy Characteristics

Characteristic	Description
Familiarity	Residents: Residents are expected to be familiar with the layout of the building and the location of exits. visitors: Visitors will generally be aware of the route they entered the building and are more likely to evacuate the building via this route even if other exits are closer. Most occupants, however, are expected to be mostly transient and it cannot be guaranteed that all occupants would be familiar with the building, its layout and the exit points.
Awareness	Residents and visitors may be under the influence of alcohol or other mild narcotics at some times.
Mobility	The occupants are considered to be representative of the general population including a limited proportion of mobility impaired occupants. These occupants may require crutches, a wheelchair or similar to evacuate on their own or need assistance from other occupants.
Training	It is assumed that occupants in the development will not have any emergency training.
Age	All occupants are considered to be representative of the general population with no specific or unusual distributions in respect to gender or age.
Culture / language	The occupants are considered to be representative of the general population with some members having varying cultural backgrounds and languages.
Occupancy Loading	Occupancy levels and distribution throughout the building is assumed to be in accordance with the occupancy loadings of Table D1.13 of the BCA.

1.5 BCA Building Information Characteristics

The initial review has identified the following information for the building as listed in Table 5.

Table 5: Relevant Building Information

BCA Clause		Description
Schedule 3	Effective Height	Less than 25 m
A6	Occupancy Classification	BCA Class 2 (Residential) BCA Class 7a (Carpark)
C1.1	Minimum Type of Construction	Type A
C1.2	Rise in Storeys	4
C2.2	Fire Compartment Floor Area and Volume	BCA Class 2 – N/A BCA Class 7a < 5,000 m^2, 30,000 m^3
Spec E1.5a	Sprinkler Required?	Yes

2 Conceptual Fire Safety Measures

The following high level fire safety measures should be read in conjunction with a BCA review for the building. These measures aim to act as a base point of any further and more detailed fire engineering assessment and reports as part of the Certification / Approvals processes.

It is outlined herein that, subject to the preliminary fire safety measures being incorporated into the design as detailed in Table 6 below as part of the concept fire safety design, and in conjunction with DtS fire safety measures as listed in a BCA Assessment Report, the future fire engineering assessments undertaken should be able to demonstrate that the identified deviations from the Deemed-to-Satisfy (DtS) Provisions meet the relevant Performance Requirements of the BCA. All other aspects of the proposed works are understood to be in accordance with the BCA DtS Provisions or as accepted by the Principal Certifier/Council.

Table 6: Required Fire Safety Features

Fire Safety Measure	Description
Construction Requirements (general)	In accordance with Part C of the BCA, the building is required to be of Type A construction. All building elements are required to have a fire resistance level (FRL) as listed in Table 4 of Specification C1.1 of the BCA, except where addressed as a performance solution. All penetrations in fire rated construction shall be fire stopped in accordance with the BCA DtS requirements.
Fire stopping at penetrations through fire rated elements	▪ All penetrations through fire rated elements (wall, floor, ceiling etc) shall be fire stopped/sealed in accordance with BCA C3.15/Spec C3.15 and/or tested systems. ▪ Fire stopping schedule shall be prepared by each contractor detailing the full FRL, product/system used, location of application, date of installation, personnel for the installation, test/assessment report, completed photo, label, etc. ▪ If the fire stopping schedule is not prepared by each contractor, an independent fire stopping specialist shall check and confirm the compliance of all the fire stopping works, and prepare a full fire stopping register for the entire building.
General Requirement - Electrical/Comms rooms/cupboard along path of travel	In accordance with BCA Clause D2.7, any Electrical/Comms rooms/cupboard located along path of travel shall be smoke sealed/separated from the remaining area: ▪ Any penetration through the Electrical/Comms rooms/cupboard shall be smoke sealed. ▪ The doors to the Electrical/Comms rooms/cupboard shall be fitted with ambient and medium smoke seals (refer to below separate section for detailed requirements for smoke seals). ▪ The doors to the Electrical/Comms rooms/cupboard, if not fire doors, shall be fitted with non-combustible backing such as metal sheeting, FC sheeting, plasterboard etc.
Fire safety doors and exit doors – general requirements of statutory signage	**General requirement - BCA D2.23** Fire doors and smoke doors (except for SOU entry doors) must be provided with a sign in 20 mm capital lettering on both sides of the doors as required in BCA D2.23. The signs are required to be as follows: ▪ to fire or smoke doors held open with automatic closing hold-open devices: **FIRE SAFETY DOOR – DO NOT OBSTRUCT** ▪ to self-closing fire or smoke doors: **FIRE SAFETY DOOR** **DO NOT OBSTRUCT** **DO NOT KEEP OPEN** ▪ to a door discharging from a fire-isolated exit: **FIRE SAFETY DOOR – DO NOT OBSTRUCT** **General requirement – EP&A Clause 183**

Fire Safety Measure	Description
	Fire safety notices shall be provided to any fire-isolated stairway, passageway or ramp as required in EP&A Clause 183. The notice shall contain the wording as follows. The words "OFFENCE RELATING TO FIRE EXITS" in the notice must be in letters at least 8 millimetres high, and the remaining words must be in letters at least 2.5 millimetres high: ***"OFFENCE RELATING TO FIRE EXITS*** *It is an offence under the Environmental Planning and Assessment Act 1979:* *(a) to place anything in or near this fire exit that may obstruct persons moving to and from the exit, or* *(b) to interfere with or obstruct the operation of any fire doors, or* *(c) to remove, damage or otherwise interfere with this notice."*
Fail-safe to doorways	▪ All automatic sliding doors, where serving as a path of travel or an exit in a fire emergency, shall fail safe to open and remain in open position on a general fire alarm. ▪ All doorways that are normally secured/locked, where serving as a path of travel or an exit in a fire emergency, shall fail safe to unlock on a general fire alarm.
Smoke seals (general requirements)	Where required in this Report (or proposed Fire Engineering Performance Solution) or by any DtS requirement for the **ambient and medium temperature rated smoke seals**, they shall have a smoke leakage rate of < 40 m^3/h (at medium temperature conditions at a pressure differential of 25 Pa after exposure at 200 °C for at least 30 minutes) when tested to AS1530.7. The smoke seals shall be fitted to all sides of the door including the bottom side. When selecting the smoke seals, the following shall be considered: ▪ Considerations shall be made when selecting smoke seals products such that they shall be compatible with the fire doors, such as the gaps around the perimeters of the doors and if the seals are suitable for the floor covering (if applicable). ▪ The installation of smoke seals shall be the same as that for the tested specimen and the provisions of AS 6905-2007. The clearances, seal contacts and other critical design attributes for fire doors shall be within the range established by test to AS 1530.7 and any variations permitted by AS 6905-2007. ▪ Recommended smoke seals products are Lorient LAS1212 & LAS1515 Batwing Perimeter Seals door frame perimeters and LAS8001si, LAS8002si, LAS8003si, LAS8005si, LAS8008si and LAS8009si threshold drop seals. Test Report EWFA Report No: 33937100.1 by Exova Warringtonfire for the above mentioned Lorient smoke seals have been reviewed, which demonstrates a smoke sealing performance that meets the set criteria above.
Smoke seals to fire doors	All fire doors in the building (including SOU entry doors, fire stair entry doors etc) shall be provided with ambient and medium temperature rated smoke seals.
Extended length of residential public corridors	Subject to detailed assessment in Fire Engineering Report in Construction Certificate stage, it is permitted to have the length of public corridors on residential area exceeding 40 m (up to 46 m) without separation of smoke doors, with enhancements to be provided to the active (e.g. detection and sprinklers) and passive (e.g. smoke seals) fire safety measures to the affected parts of the building.
Extended travel distance in carpark areas	Subject to detailed assessment in Fire Engineering Report in Construction Certificate stage, it is permitted to have extended travel distance in carpark areas up to 34 m instead of 20 m to a single exit, with enhancements to be provided to the active (e.g. detection and sprinklers) and passive (e.g. smoke seals) fire safety measures to the affected parts of the building.
Discharge of fire-isolated stairs	Subject to detailed assessment in Fire Engineering Report in Construction Certificate stage, the following DtS departures for the discharge of fire-isolated stairs may be permitted, with enhancements to be provided to the active (e.g. detection and sprinklers) and passive (e.g. smoke seals) fire safety measures to the affected parts of the building: ▪ Fire-isolated stairs discharging into internal areas not complying with the requirement of BCA D1.7(b). ▪ Egress routes following the discharge of the fire-isolated stairs being located within 6 m of unprotected openings.

Fire Safety Measure	Description
	Note: At this stage, the location/extent of the above DtS departures are yet to be confirmed and will be subject to a more detailed BCA review. The expected to fire safety requirements for the proposed fire safety requirements are: ▪ Management on fuel load control in the fire-isolated stair internal discharge area with signage installed on the wall. ▪ Smoke seals to all doors opening into the fire-isolated internal discharge area. ▪ The openings that are within 6 m of an egress route following the discharge of a fire-isolated stair shall have a dedicate row of sprinklers provided in the room within 0.5 m of the glazed openings.
Automatic fire detection and alarm system	A fire detection system shall be provided in accordance with BCA Spec E2.2a Clause 5 and AS 1670.1-2018 and additional requirements as follows: ▪ **Smoke detectors** in accordance with AS 1670.1-2018 (Section 5) in: ○ Carpark: Garbage/Recycle Room, Electrical Room ○ All residential common areas including lobby, storage room, cupboards for electrical or comms services ○ Fire-isolated stair and lift shaft as per 1670.1-2018 ▪ **Smoke detectors** in accordance with AS 1670.1-2018 (Section 7) in carpark circulation spaces and in front of fire stair door. ▪ **Smoke alarms** in accordance with AS 3786-2014 inside residential SOUs. ○ Where there is more than one smoke alarm inside the one single SOU, they shall be interconnected. ▪ For Smoke detectors in accordance with AS 1670.1-2018 (Section 5), the spacing of smoke detectors shall be maximum 10 m apart, and maximum 5 m to end wall or bulkhead/beams more than 300 mm deep. ▪ For Smoke detectors in accordance with AS 1670.1-2018 (Section 7), the spacing of smoke detectors shall be maximum 15 m apart, and maximum 7.5 m to end wall or bulkhead/beams more than 300 mm deep. ▪ Refer to Clause 5.1.6 of AS 1670.1-2018 for detailed requirements for location of detectors on level surfaces with deep beams/bulkhead. ▪ The following general requirements from AS 1670.1 to detectors (including both smoke and heat detectors) shall be noted: ○ Where an area is divided into sections by walls, partitions or storage racks reaching within 300 mm of the ceiling (or the soffits of the joists where there is no ceiling), each section shall be treated as a room, and shall be protected. ○ A clear space for access of at least 300 mm radius, to a depth of 600 mm, shall be maintained from the detector or sampling point. Minor building structure and service occupying this space shall not exceed 25 percent of the clear space provided it does not prevent access to the detector. ○ Detectors shall not be installed closer than 900 mm to any air supply opening.
Building Occupant Warning System (BOWS)	A Building Occupant Warning System (BOWS) shall be provided throughout in accordance with BCA Spec E2.2a Clause 7 and AS 1670.1-2018. ▪ The Building Occupant Warning System (BOWS) shall be interconnected with the AS 1670.1 smoke detection system and fire sprinkler system (except for FPAA101D system).
Fire sprinkler system	The subject building is required to be provided with a sprinkler system in accordance with BCA Clause E1.5 and Spec E1.5a throughout. ▪ The system can be an AS 2118.1, AS 2118.4, FPAA101D or FPAA101H system. ▪ Note: there are certain requirements/concessions applicable on other DtS requirements – refer to BCA Spec E1.5a for details. For example, typical concessions applied to sprinkler protected building that **DO NOT** apply to a building protected by a FPAA101D system are: ○ BCA Clause C2.6 (Spandrels);

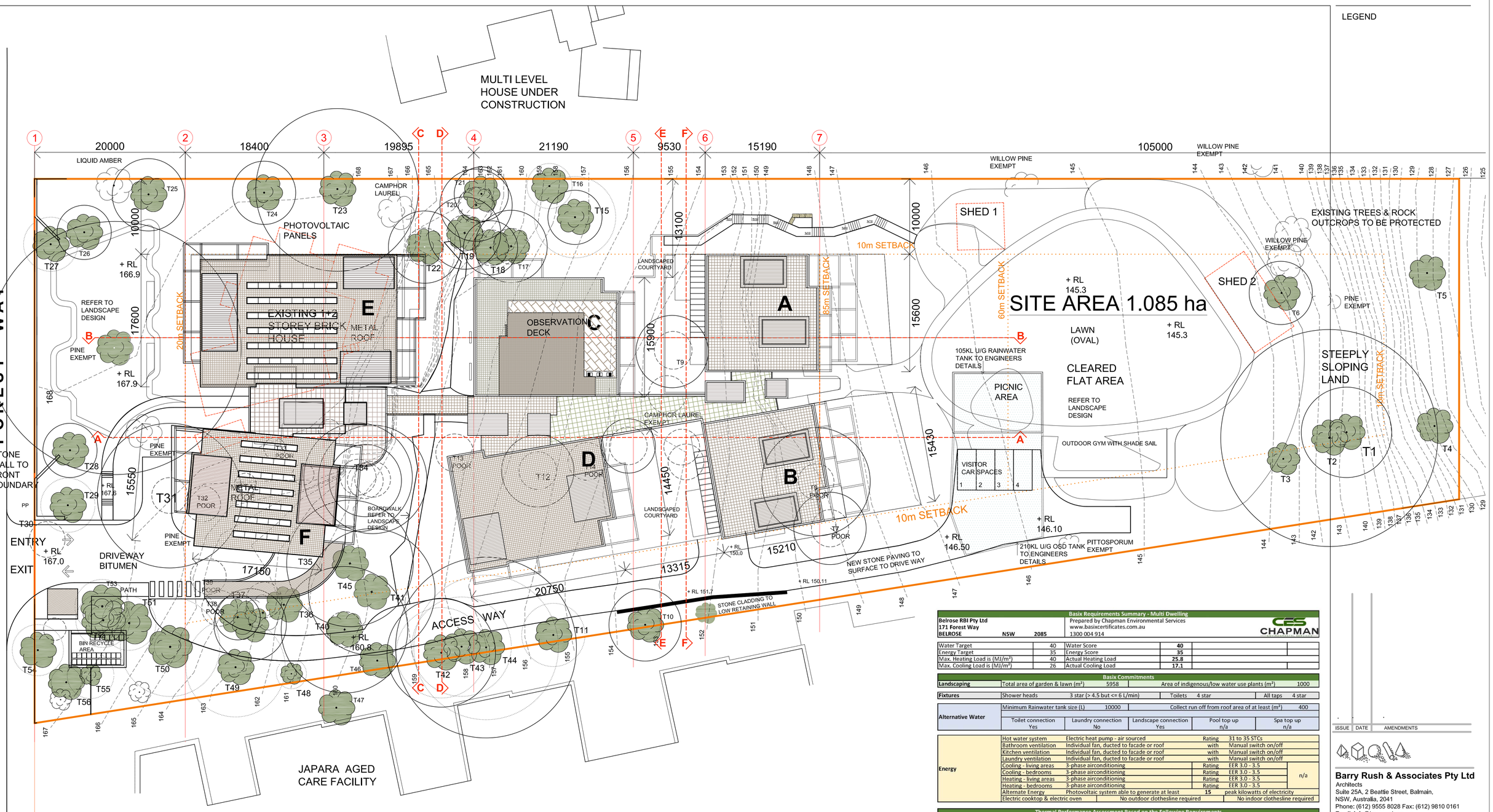
Fire Safety Measure	Description
	○ BCA Clause C2.7 (lower roof areas and protections); ○ BCA Spec C1.1 clause 3.5 (Roof Concession); ○ BCA Spec C1.1 clause 3.10 (FRL Concession); ○ BCA Clause C1.10 and Spec C1.10 (Fire Hazard Properties); ○ BCA Clause D1.3 (When fire isolated stairs are required) ○ Various BCA Clause C, D and E parts relating to fire trips/activations/release of systems, etc. The following additional requirements are noted: ▪ All ceiling mounted sprinkler heads shall be fast response with an RTI of 50 $(m \cdot s)^{1/2}$ or less. ▪ Activation temperature of 68°C except where otherwise required by AS 2118.1 (such as under glazed skylights and roof areas). ▪ Activation of the sprinkler system shall activate the Building Occupant Warning System (except for a FPAA101D system). ▪ Attention is drawn to the specific requirements of AS 2118.1 with regard to height of storage / racking and clearances below sprinkler heads, generally required to be at least 500 mm. Where the sprinklers heads are located above a storage cage, a perforated barrier shall be installed to the top of the cage to ensure there is no storage within the 500 mm clearance below the sprinkler heads. ▪ The openings that are within 6 m of an egress route following the discharge of a fire-isolated stair shall have a dedicate row of sprinklers provided in the room within 0.5 m of the glazed openings.
Fire hydrant system	A fire hydrant system shall be provided in accordance with BCA E1.3 and AS 2419.1, **OR** Spec E1.5a Clause 3(b)(vii), i.e., a dry fire hydrant system that otherwise complies with AS 2419.1, except as permitted for the following: ▪ The system pipework is not connected to the water supply; ▪ An on-site fire pumpset is not required; ▪ The minimum fire hydrant outlet flow of 6 L/s may be achieved when boosted by a fire brigade pumping appliance; ▪ The minimum pipe sizes specified in AS 2419.1 do not apply; ▪ Each fire hydrant head is located in accordance with E1.3 and fitted with a blank end cap or plug; ▪ A hydrant booster inlet connection is provided in accordance with E1.3; ▪ An external street or feed hydrant capable of providing the required system flow is located within 60 m of the hydrant booster connection.
Fire hose reels	Fire hose reels shall be provided to non-residential areas in accordance with BCA 2019 (Amendment 1) Clause E1.4 and AS 2441-2005.
Portable fire extinguishers	Portable fire extinguishers shall be provided in accordance with BCA 2019 (Amendment 1) Clause E1.6 and AS 2444.
Emergency lighting and exit signs	Emergency lighting and exit signage shall be provided to building in accordance with BCA 2019 (Amendment 1) E4.2 and E4.5 respectively, and AS 2293.1.
Maintenance	A maintenance program shall be developed with all essential safety measures (active, passive and management) maintained in accordance with AS 1851 and AS 2293.2, and is to incorporate system interface testing, where relevant.

3 Key Assumptions and Limitations

- This report is consistent with the fire safety provisions, objectives and limitations of the NCC 2019 (Amendment 1) - Building Code of Australia (BCA) Volume One:
    - All new works associated with the works comply with the current DtS provisions of the BCA except for any specific Performance Solution report carried out in addressing DtS non-compliances.
    - This report excludes the assessment and design against fires that include incendiary ones involving accelerants, explosives, multiple ignition sources, or acts of terrorism.
    - The concepts outlined in this report assume a complete and operational building, and do not address protection of the building during construction, renovation or demolition.
    - All of the fire safety systems are assumed to be designed, installed and operate in accordance with the appropriate Australian standards, other design codes, legislation and regulations relevant to the project unless specifically stated otherwise. All essential services equipment will be maintained, to the operational capacity to which they were designed, installed, commissioned and certified, in accordance with the manufacturer's instructions. As such, all essential services equipment and management plans, etc discussed within this report are assumed to function correctly during a fire situation.
    - Access and Egress provisions for persons with disabilities including compliance with the Disability Discrimination Act (DDA) are considered to the same degree as the BCA.
    - Unless stated otherwise, protection of property (other than within the subject property), business continuity, interruption or losses, environmental impacts, personal or moral obligations of the owner/occupier, reputation, amenity or non-fire related matters in the building such as health, security, energy efficiency, and occupational health & safety or the costs associated with any fire damages are specifically excluded from this analysis.

- **This report is not a Performance Solution Report.**
- This report is not a compliance or conformance audit for any fire safety system. For example, operational checks of fire safety equipment, verification of construction techniques, fire resistance levels or the witnessing of fire drills or exercises are specifically excluded from the scope of this report.
- The findings and outcomes of this report apply only to the subject building / works and must not be utilised for any other purpose. Any modifications, extensions, change of use, etc. to the building, fire safety measures or essential services equipment, from that described in this report may invalidate the findings, necessitating a re-assessment.

Appendix A Proposed Drawings



SITE PLAN

SCALE (METRES) 1:500 AT A3

NORTH

0 5 10 20 30 40 50

TOTAL NUMBER OF **UNITS** 35
(12 x 2 BED, 23 x 3 BED)
TOTAL **CAR SPACES** - 72 SPACES
(DOUBLE GARAGES - 23)
(VISITOR SPACES - 17)
1x AMBULANCE & 1x SERVICE SRV VEHICLE

SITE AREA 10,854 sq.m. 50% = 5427 sq.m.
GROSS FLOOR AREA (LEP) 4805 sq.m.
FSR 0.44: 1

LANDSCAPE AREA 6304 sq.m. 62%

LEGEND

Basix Requirements Summary - Multi Dwelling					
Belrose RBI Pty Ltd **171 Forest Way** **BELROSE** NSW 2085		Prepared by Chapman Environmental Services www.basixcertificates.au.com 1300 004 914			
Water Target	40	Water Score	**40**		
Energy Target	35	Energy Score	**35**		
Max. Heating Load is (MJ/m²)	40	Actual Heating Load	**25.8**		
Max. Cooling Load is (MJ/m²)	26	Actual Cooling Load	**17.1**		

Basix Commitments					
Landscaping	Total area of garden & lawn (m²) 5958		Area of indigenous/low water use plants (m²) 1000		
Fixtures	Shower heads 3 star (> 4.5 but <= 6 L/min)		Toilets 4 star		All taps 4 star
Alternative Water	Minimum Rainwater tank size (L) 10000		Collect run off from roof area of at least (m²) 400		
	Toilet connection Yes	Laundry connection No	Landscape connection Yes	Pool top up n/a	Spa top up n/a
Energy	Hot water system	Electric heat pump - air sourced	Rating	31 to 35 STCs	
	Bathroom ventilation	Individual fan, ducted to facade or roof	with	Manual switch on/off	
	Kitchen ventilation	Individual fan, ducted to facade or roof	with	Manual switch on/off	
	Laundry ventilation	Individual fan, ducted to facade or roof	with	Manual switch on/off	
	Cooling - living areas	3-phase airconditioning	Rating	EER 3.0 - 3.5	n/a
	Cooling - bedrooms	3-phase airconditioning	Rating	EER 3.0 - 3.5	
	Heating - living areas	3-phase airconditioning	Rating	EER 3.0 - 3.5	
	Heating - bedrooms	3-phase airconditioning	Rating	EER 3.0 - 3.5	
	Alternate Energy	Photovoltaic system able to generate at least	15	peak kilowatts of electricity	
	Electric cooktop & electric oven	No outdoor clothesline required		No indoor clothesline required	

Thermal Performance Assessment Based on the Following Requirements			
Floor Types	Concrete slab on ground	with	No insulation required
	Suspended concrete slab	with	R1.2 Foilboard insulation to Units above Basement carparks (U10: R1.9)
Floor Coverings	Tiles Wet Areas	Timber Living & Bedrooms	
	Carpet Nil	Concrete Basement	
External Walls	75mm Hebel (AAC) on battens	with Sarking and R2.5 bulk insulation	Colour Medium
	Timber framed Metal clad	with Sarking and R2.5 bulk insulation	Colour Medium
	190mm Concrete block lined	with Sarking and R2.5 bulk insulation	Colour Medium
Internal Walls	90mm Blockwork	with Nil	
	Plasterboard	with No insulation required	
Party Walls	162mm AFS or similar	with Nil	
Ceiling (floor over)	Concrete above plasterboard	with	
Ceilings (roof over)	Concrete above plasterboard	with R3.5 Foilboard insulation	
	Timber above plasterboard.	with R3.5 bulk insulation	
Roof	Concrete 0 degrees	with Waterproof membrane only	Colour Medium
	Metal 2 degrees	with R1.3 roof blanket	Colour Medium
Windows and Doors	AF single glazed clear Louvres	Group B | ALM-002-01 | U-Value 6.70 or less | SHGC 0.70 +/- 5%	
	AF double glazed clear	Group A | ALM-003-01 | U-Value 4.80 or less | SHGC 0.51 +/- 5% Group B | ALM-004-01 | U-Value 4.80 or less | SHGC 0.59 +/- 5%	
	AF double glazed LowE (U10: L3-SGD6), (U35: L9-SGD4, L9-SGD6)	Group B | ALM-004-03 | U-Value 4.30 or less | SHGC 0.53 +/- 5% Group B | ALM-004-04 | U-Value 4.90 or less | SHGC 0.33 +/- 5%	
	Group A windows are Awning, Bifold, Casement or Tilt'n'turn	Group A doors are Bifold, Entry, French or Hinged	
	Group B windows are Double hung, Fixed, Louvre or Sliding	Group B doors are Sliding or Stacker	
	AF = Aluminium Framed	TB = Thermally Broken Aluminium Framed	TF = Timber Framed
Notes	1. U7, U14, U29: 1 x 1200mm dia ceiling fan to living Rm 2. U33, U35: 1 x 1200mm dia ceiling fan to Living Room & Bedrooms		

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client
BELROSE PAVILIONS

Project
171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing
SITE PLAN 1:250
1:500 @A3

Scale	1:250	Drawn	BR
File	DA Pavilions November 2021 A3.pln	Check	BR
Plotted	8/12/2021 10:10 AM		
Job No	2101		
Version	DA	Drawing No:	**A02**

FOREST WAY

1 2 3 C D 4 5 E F 6 7

20000 18400 19895 21190 9530 15190

LIQUID AMBER

WILLOW PINE EXEMPT

T25 T24 T23 T21 T20 T16 T15 T27 T26 T22 T19 T18 T17

CAMPHOR LAUREL

+ RL 166.9

20m SETBACK

LINE OF LEVEL 2 OVER

85m SETBACK

10m SETBACK

SHED 1

60m SETBACK

10000

15300

B

PINE EXEMPT

+ RL 167.9

168

STORE 1

UNIT 1 170 m²

U1

A

LIVING

DINING

B1 B2 B3/S

120 m²

138 sq m COURTYARD

TOW+ RL 147.3

LINE OF BALCONY OVER

ST 3

L3

LEVEL 1 RL 146.6

T9

CAMPHOR LAUREL EXEMPT

STONE WALL TO FRONT BOUNDARY

T28 T29 T30 T31 T32 POOR T33 POOR T34 T13 POOR T12 T14 POOR

PINE EXEMPT

BOARDWALK REFER TO LANDSCAPE DESIGN

U2

UNIT 2 152 m²

COURTYARD 176 m²

STONE CLAD WALL

T8 POOR

T7 POOR

10m SETBACK

LINE OF LEVEL 2 OVER

+ RL 150.0

10422

U/G OSD TANK

+ RL 146.50

ENTRY

EXIT

+ RL 167.0

T53 PATH

T39 POOR T38 POOR T37 T35 T45 T41

STONE PAVING TO SURFACE TO DRIVE WAY

+ RL 150.11

+ RL 151.7

STONE CLADDING TO LOW RETAINING WALL

ENTRY

T51 T36 T40 T10 T11

ACCESS WAY

+ RL 160.8

T52 BIN RECYCLE AREA

T54 T50 T55 T56 T49 T46 T48 T47 T42 T43 T44

JAPARA AGED CARE FACILITY

N

9 AM 10 AM 11 AM 12 NOON 1 PM 2 PM 3 PM

WINTER SUN ANGLE

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

LEVEL 1 FLOOR PLAN

GFA 342m²

LEGEND

ISSUE	DATE	AMENDMENTS

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project
171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing
LEVEL 1 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A.pln	Check	AB
Plotted	8/12/2021 10:10 AM		
Job No	2101		
Version	DA	Drawing No:	**A03**

FOREST WAY

STONE WALL TO FRONT BOUNDARY

ENTRY

EXIT

1 2 3 4 5 6 7 A B C D E F

20000 18400 19895 21190 9530 15190

LIQUID AMBER

WILLOW PINE EXEMPT

CAMPHOR LAUREL

PINE EXEMPT

T23 T24 T25 T26 T27 T28 T29 T30 T31 T32 POOR T33 POOR T34 T35 T36 T37 T38 POOR T39 POOR T40 T41 T42 T43 T44 T45 T46 T47 T48 T49 T50 T51 T52 T53 T54 T55 T56 T7 POOR T9 T10 T11 T12 T13 POOR T14 POOR T15 T16 T17 T18 T19 T20 T21 T22

+ RL 166.9

+ RL 167.9

+ RL 167.6

+ RL 167.0

+ RL 160.8

+ RL 150.0

+ RL 150.11

+ RL 146.50

+ RL 146.1

RL 151.7+

PATH

20m SETBACK

10m SETBACK

85m SETBACK

60m SETBACK

10000

15300

15300

9430

33530

BOARDWALK REFER TO LANDSCAPE DESIGN

ACCESS WAY

STONE PAVING TO SURFACE OF DRIVE WAY

STONE CLADDING TO LOW RETAINING WALL

U/G OSD TANK

SHED 1

LINE OF LEVEL 1 UNDER

LINE OF LEVEL 3 OVER

LEVEL 2 CARPARK 30 SPACES

GARAGE 1 GARAGE 2 GARAGE 3 GARAGE 4 GARAGE 5 GARAGE 6 GARAGE 7 GARAGE 8 GARAGE 9

GARAGE DOOR

ST 2 ST 3

L3 GLAZED LIFT

LEVEL 2 RL 149.7

+RL 149.7

VISITOR SA

UNIT 3 138 m² LIVING DINING

UNIT 4 138 m² LIVING DINING

40 m²

LINE OF BALCONY OVER

B1 B2 B3/S E/S WIR LAU BPC K BTH

JAPARA AGED CARE FACILITY

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

WINTER SUN ANGLE

N 1 PM 2 PM 3 PM 12 NOON 11 AM 10 AM 9 AM

LEVEL 2 FLOOR PLAN

GFA 297m²

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 2 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A.pwg	Checked	AB
Plotted	8/12/2021 10:10 AM		
Job No	2101		
Version	DA	Drawing No:	**A04**

FOREST WAY

1 2 3 C D 4 5 E F 6 7

20000 18400 19895 21190 9530 15190

LIQUID AMBER

WILLOW PINE EXEMPT

T25 T24 T23 T21 T20 T16 T15 T27 T26 T22 T19 T18 T17

CAMPHOR LAUREL

+ RL 166.9

20m SETBACK

LINE OF LEVEL 2 UNDER

LINE OF LEVEL 4 OVER

85m SETBACK

10m SETBACK

60m SETBACK

SHED 1

10000

15600

UNIT 7 95m²

DECK 15 sq m

DECK 41 sq m

UNIT 9 118 m²

DECK 41 sq m

LINE OF BALCONY COVER

LANDSCAPED COURTYARD 1

DECK 30 sq m

UNIT 5 88 m²

RAISED ROOF & HIGHLIGHT WINDOWS OVER SHOWN DOTTED

B

PINE EXEMPT

+ RL 167.9

168

STORE 38m²

T9

LEVEL 3 RL 152.8

ST 3

L3 GLAZED LIFT LEVEL 3 RL 152.8

ST 2

L2

LEVEL 3 RL 152.8 215m²

LEVEL 3 COMMON AREA

A

PINE EXEMPT

T33 POOR

T34

T13 POOR

T14 POOR

SERVICES STORE 42m² T12

LANDSCAPED COURTYARD 2

LEVEL 3 RL 152.8

UNIT 6 88 m²

30 sq m DECK

T28 PATH

+ RL 167.5

T29

T31

T32 POOR

BOARDWALK REFER TO LANDSCAPE DESIGN

STONE WALL TO FRONT BOUNDARY

T30

ENTRY

EXIT

+ RL 167.0

PINE EXEMPT

UNIT 10 120m²

DECK 40 sq m

UNIT 8 95 m²

DECK 40 sq m

T7 POOR

10m SETBACK

U/G OSD TANK

+ RL 150.0

15200

11700

8550

+ RL 146.50

STONE PAVING TO SURFACE OF DRIVE WAY

+ RL 150.11

+ RL 151.7

STONE CLADDING TO LOW RETAINING WALL

T35

T53 PATH

T39 POOR

T37

T38 POOR

T45

T41

T51

T36

T40

ACCESS WAY

T10

T11

ENTRY

T52

BIN RECYCLE AREA

+ RL 160.8

T54

T50

T49

T48

T46

T47

T42

T43

T44

T55

T56

JAPARA AGED CARE FACILITY

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

LEVEL 3 FLOOR PLAN

GFA 665m²

N

3 PM 2 PM 1 PM 12 NOON 11 AM 10 AM 9 AM

WINTER SUN ANGLE

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 3 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A3.dwg	Check	AR
Plotted	8/12/2021 10:10 AM		
Job No	2101		
Version	DA	Drawing No:	**A05**

FOREST WAY

1 2 3 4 5 6 7

20000 18400 19895 21190 9530 15190

C D E F

LIQUID AMBER

WILLOW PINE EXEMPT

CAMPHOR LAUREL

T21 T20 T16 T15 T25 T24 T23 T22 T19 T18 T17

LINE OF BALCONY OVER

SHED 1

10m SETBACK

85m SETBACK

60m SETBACK

20m SETBACK

10000

15600

15600

+ RL 166.9

T27 T26

B

PINE EXEMPT

+ RL 167.9

168

LINE OF LEVEL 3 UNDER

STORE 62 m²

U15 140m²

C DINING LIVING

DECK 46 sq m

DECK BELOW

UNIT 13 95 m²

DECK 15 sq m

UNIT 11 88 m²

A

DECK 30 sq m

RAISED ROOF & HIGHLIGHT WINDOWS OVER SHOWN DOTTED

T9

ST 3

L3 GLAZED LIFT

LEVEL 4 RL 155.9

LINK CAMPHOR LAUREL EXEMPT

193 m²

COFFEE

LEVEL 4 RL 155.9

ST 2

L2

A

PATH

PINE EXEMPT

T28 T29 T30 T31 T32 POOR T33 POOR T34

+ RL 167.6

STONE WALL TO FRONT BOUNDARY

ENTRY

EXIT

+ RL 167.0

T13 POOR

STORE 37 m²

U16 153m²

T14 POOR

LIVING

D DINING

DECK 47 sq m

DECK BELOW

UNIT 12 88 m²

B

30 sq m DECK

UNIT 14 95 m²

T7 POOR

RAISED ROOF & HIGHLIGHT WINDOWS OVER SHOWN DOTTED

10m SETBACK

U/G OSD TANK

+ RL 146.50

BOARDWALK REFER TO LANDSCAPE DESIGN

LINE OF LEVEL 5 OVER

LINE OF BALCONY OVER

+ RL 150.0

15200

13675

11000

+ RL 151.7

+ RL 150.11

STONE PAVING TO SURFACE OF DRIVE WAY

STONE CLADDING TO LOW RETAINING WALL

T53 PATH T51 T39 POOR T38 POOR T37 T35 T45 T41 T36 T40 T46 T42 T43 T44 T11 T10

ENTRY

T52 BIN RECYCLE AREA

T54 T55 T56 T50 T49 T48 T47

+ RL 160.8

ACCESS WAY

C D E F

JAPARA AGED CARE FACILITY

N

WINTER SUN ANGLE

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

LEVEL 4 FLOOR PLAN

GFA 716m²

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 4 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A3.pln	Check	AS
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A06**

LEVEL 5 FLOOR PLAN

GFA 571m²

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client
BELROSE PAVILIONS

Project
171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing
LEVEL 5 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A3.pln	Check	AS
Plotted	8/12/2021 10:10 AM		
Job No	2101		
Version	DA	Drawing No:	**A07**

LEVEL 6 FLOOR PLAN

GFA 571m²

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

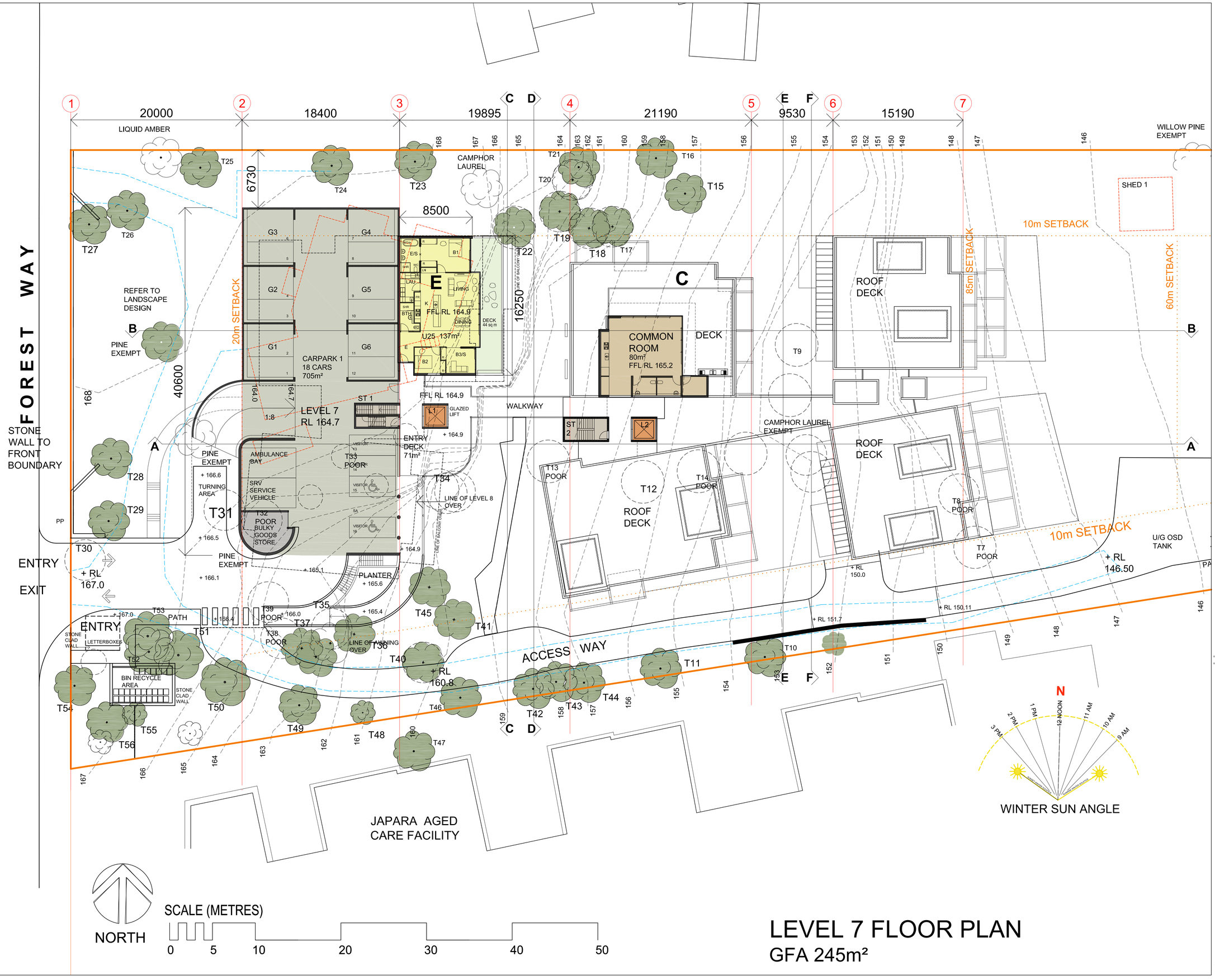
171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 6 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A3.dwg	Check	AB
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A08**



LEGEND

ISSUE	DATE	AMENDMENTS

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 7 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A3.pln	Check	AB
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A09**

LEVEL 7 FLOOR PLAN
GFA 245m²

FOREST WAY

LIQUID AMBER

WILLOW PINE EXEMPT

CAMPHOR LAUREL

CAMPHOR LAUREL EXEMPT

PINE EXEMPT

PINE EXEMPT

SHED 1

10m SETBACK

20m SETBACK

85m SETBACK

60m SETBACK

REFER TO LANDSCAPE DESIGN

+ RL 166.9

+ RL 167.9

+ RL 167.0

+ RL 160.8

+ RL 146.50

+ RL 150.0

+ RL 150.11

+ RL 151.7

LEVEL 8
RL 168.6

STONE CLAD WALL
TOW + RL 169.8

STONE CLAD WALL
TOW RL 170.0

LINE OF LEVEL 7 UNDER

POS 57 sq m

U29 145m²

U30 134m²

U27 108m²

U28 133m²

U26 133m²

DECK 29 sq m

DECK 28 sq m

DECK 27sq m

DECK 37 sq m

OBSERVATION DECK

ROOF DECK

ROOF DECK

ROOF DECK

T13 POOR

T14 POOR

T32 POOR

T38 POOR

T39 POOR

T8 POOR

T7 POOR

T33 POOR

T34

T12

T9

T10

T11

T15

T16

T17

T18

T19

T20

T21

T22

T23

T24

T25

T26

T27

T28

T29

T30

T31

T35

T36

T37

T40

T41

T42

T43

T44

T45

T46

T47

T48

T49

T50

T51

T52

T53

T54

T55

T56

ST 1

L1

GLAZED STAIR

GLAZED LIFT

VOID

SEAT

PLANTER

PATH

STEPS

TURNING AREA

ENTRY

EXIT

DRIVE WAY

AWNING

BIN RECYCLE AREA

U/G OSD TANK

JAPARA AGED CARE FACILITY

20000 | 18400 | 19895 | 21190 | 9530 | 15190

9000 | 26100 | 17320 | 15550 | 17150

1 2 3 C D 4 5 E F 6 7

146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168

A A B B

N

2 PM 1 PM 12 NOON 11 AM 10 AM 9 AM 3 PM

WINTER SUN ANGLE

SCALE (METRES)

0 5 10 20 30 40 50

NORTH

LEVEL 8 FLOOR PLAN

GFA 703m²

LEGEND

ISSUE	DATE	AMENDMENTS

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 8 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A.pwg	Check	AB
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A10**

FOREST WAY

1 2 3 C D 4 5 E F 6 7

20000 18400 26100 19895 21190 9530 15190

LIQUID AMBER

WILLOW PINE EXEMPT

CAMPHOR LAUREL

T21 T20 T16 T15 T24 T23 T25 T26 T27 T22 T19 T18 T17

LINE OF LEVEL 8 UNDER

RAISED ROOF & HIGHLIGHT WINDOWS OVER SHOWN DOTTED

POS 57 sq m

U33 145m²

U31 108m²

U35 126m²

DECK 29 sq m

DECK 28 sq m

20m SETBACK

17320

REFER TO LANDSCAPE DESIGN

PINE EXEMPT

LEVEL 9 RL 171.7

ST 1

GLAZED STAIR

GLAZED LIFT

L1

VOID

OBSERVATION DECK

10m SETBACK

85m SETBACK

60m SETBACK

ROOF DECK

SHED 1

CAMPHOR LAUREL EXEMPT

T28 T29 T30 T31 T32 T33 T34 T35 T36 T37 T38 T39 T40 T41 T42 T43 T44 T45 T46 T47 T48 T49 T50 T51 T52 T53 T54 T55 T56

U34 133m²

U32 133m²

DECK 31 sq m

DECK 07 sq m

T32 POOR

T33 POOR

T39 POOR

T38 POOR

T13 POOR

T14 POOR

T8 POOR

T7 POOR

T12

ROOF DECK

15550

17150

+ RL 167.5

+ RL 167.0

+ RL 160.8

+ RL 150.0

+ RL 146.50

+ RL 150.11

+ RL 151.7

STONE WALL TO FRONT BOUNDARY

ENTRY

EXIT

PATH

BIN RECYCLE AREA

ACCESS WAY

T9 T10 T11

U/G OSD TANK

JAPARA AGED CARE FACILITY

N

WINTER SUN ANGLE

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

LEVEL 9 FLOOR PLAN

GFA 695m²

LEGEND

ISSUE	DATE	AMENDMENTS
.	.	.

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

LEVEL 9 FLOOR PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A.pwg	Checked	AB
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A11**

FOREST WAY

1 20000 2 18400 3 19895 C D 4 21190 5 E F 9530 6 15190 7

LIQUID AMBER

WILLOW PINE EXEMPT

CAMPHOR LAUREL

CAMPHOR LAUREL EXEMPT

T15 T16 T17 T18 T19 T20 T21 T22 T23 T24 T25 T26 T27 T28 T29 T30 T31 T32 POOR T33 POOR T34 T35 T36 T37 T38 POOR T39 POOR T40 T41 T42 T43 T44 T45 T46 T47 T48 T49 T50 T51 T52 BIN RECYCLE AREA T53 PATH T54 T55 T56 T7 POOR T8 POOR T9 T10 T11 T12 T13 POOR T14 POOR

PHOTO-VOLTAIC CELLS

METAL PERGOLA STRUCTURE

RAISED ROOF & HIGHLIGHT WINDOWS

METAL ROOF

OBSERVATION DECK

ROOF DECK

SHED 1

REFER TO LANDSCAPE DESIGN

PINE EXEMPT

STONE WALL TO FRONT BOUNDARY

ENTRY

EXIT

+ RL 167.0

+ RL 160.8

+ RL 146.50

+ RL 146.

U/G OSD TANK

PATH

ACCESS WAY

10m SETBACK

20m SETBACK

85m SETBACK

60m SETBACK

JAPARA AGED CARE FACILITY

WINTER SUN ANGLE

N

12 NOON 11 AM 10 AM 9 AM 1 PM 2 PM 3 PM

NORTH

SCALE (METRES)

0 5 10 20 30 40 50

ROOF PLAN

LEGEND

ISSUE	DATE	AMENDMENTS

Barry Rush & Associates Pty Ltd
Architects
Suite 25A, 2 Beattie Street, Balmain,
NSW, Australia, 2041
Phone: (612) 9555 8028 Fax: (612) 9810 0161
Email: info@barryrush.com.au
www.barryrush.com.au

Client

BELROSE PAVILIONS

Project

171 FOREST WAY
BELROSE

LOT 9 IN DP 737255

Drawing

ROOF PLAN
1:200

Scale	1:200	Drawn	BR
File	DA Pavilions November 2021 A.pwg	Check	AB
Plotted	8/12/2021 10:10 AM		
Job No	2102		
Version	DA	Drawing No:	**A12**