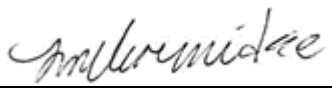
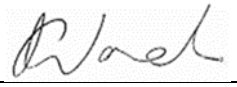
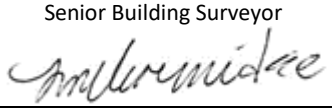
Project	13-19 Canberra Avenue, St Leonards
Report	NCC Assessment Report (DA Stage)
Reference	220225C-NCC-r5
Date	10 April 2024
Client	Hyecorp Property Group
Contact	simon@hyecorp.com.au

Credwell Consulting Pty Ltd
Suite 6.03, Level 6, 233 Castlereagh Street, Sydney NSW 2000
P. (02) 9281 8555 **E. Info@credwell.com.au** **W. www.credwell.com.au**

Table of Contents

Document Control

Reference/Revision	Date	Description	NCC Assessment Report
C21251-NCC-r1 *DA Submission*	14/10/21	**Prepared by**	**Tatenda Makurumidze** Building Surveyor
		Reviewed by	**Zoe Brown** Building Surveyor – Unrestricted BDC3299
220225C-NCC-r2 *Section 4.55 Submission*	01/12/22	**Prepared by**	**Tatenda Makurumidze** Building Surveyor
		Reviewed by	**Robert Briant** Associate Building Surveyor – Unrestricted BDC0048
220225C-NCC-r3 *Section 4.55 (2) Submission* Report updated to capture the additional two storeys.	13/12/2022	**Prepared by**	**Tatenda Makurumidze** Building Surveyor 
		Reviewed by	**Christopher Ward** Building Surveyor – Unrestricted BDC2789 
220225C-NCC-r4 *DA Submission* Report updated to capture the additional storeys.	08/04/2024	**Prepared by**	**Tatenda Makurumidze**
220225C-NCC-r5 *DA Submission* Report updated to capture the additional storeys and fire control room.	10/04/2024	**Prepared by**	**Tatenda Makurumidze** Senior Building Surveyor 

1 Introduction

1.1 Building Location and Description

The development being the subject of this report is proposed to be located at 13-19 Canberra Avenue, St Leonards NSW 2065.

The proposed development consists of a nineteen (19) storey residential apartment building The building also comprises of one commercial tenancy, childcare, gym, community centre, and associated facilities and a four-level car park located within the Basement with 138 one hundred and thirty eight car park spaces.

The main pedestrian entrance to the residential component is located on Canberra Avenue.

1.2 Objectives

The purpose of this Report is to outline an assessment of the proposed development against the National Construction Code, Volume 1, Building Code of Australia, 2019, Amendment 1 (the "NCC"). The assessment addresses all relevant Deemed-To-Satisfy (DTS) clauses of the NCC and provides comment on the compliance status of the proposed development. If the development does not comply with a DTS clause, where appropriate, a recommendation to prepare/obtain a Performance Solution is specified. Where a clause is not relevant to the proposed development it is not discussed.

It is presumed the assumptions, content, and limitations of this Report are reviewed and understood by the reader. Credwell Consulting should be contacted to clarify any queries or assumptions made in relation to the contents of this Report. Furthermore, Credwell Consulting take no responsibility for misinterpretation of any of the content herein.

1.3 Limitations

This Report does not include or imply any audit, assessment, or upgrading of the proposed development regarding:

1. The structural design;
2. The capacity or design of any electrical, fire, hydraulic or mechanical services;
3. the Disability Discrimination Act 1992 including the Disability ((Access to Premises – Buildings) Standards 2010 – unless specifically referred to), (Note: The provision of disabled access to the subject development has not been assessed against the deemed to satisfy provision of Part D3 and F2.4 of BCA2019 only);
4. NCC Section Part D3, Clauses E3.6, F2.4 and F2.9, Part J

This Report does not include or imply, any assessment of, or compliance with:

1. any development consent conditions;
2. the Liquor Licensing Act 2007;
3. the Work Health and Safety Act 2011;
4. the Swimming Pools Act 1992; and
5. requirements of authorities including, but not limited to, WorkCover, Roads and Maritime Services, Council, telecommunications supply authority, electricity supply authority, water supply authority, gas supply authority, and the like.

Interpretations

Numerous clauses within the NCC require interpretation. Where interpretation of a clause is required, Credwell Consulting apply what is believed to be the current standard industry practice (at the time the Report is written).

Dimensions and Tolerances

The NCC regularly specifies minimum dimensions for construction. The assessment outlined in this Report includes a review of such minimum dimensions that are relevant to the proposed development. However, Credwell Consulting does not guarantee that all relevant minimum dimensions have been assessed where they are not clearly and explicitly denoted/marked on the architectural drawings reviewed. Also, it remains the responsibility of the designer(s) and builder(s) to confirm that all minimum dimensions are achievable on site prior to work commencing.

1.4 Reviewed Documentation

The assessment outline in the Report is based on review of the documentation referenced in Annexure A.

2 Building Description

For the purposes of the NCC, the building is described as follows:

Building Classification:	Class 2, 6, 7a, 7b, & 9b	**Levels Contained:**	23
Rise in Storeys:	19	**Effective Building Height (m):**	57.2m (RL 114.100– RL 56.90)
Type of Construction:	A	**Climate Zone:**	Lane Cove Municipal Council Zone 5

2.1 Classification

Location	Class	Use	Floor Area
Basement 4	7a	Carpark	1,502m²
	7a	Carpark	1,451 m²
	7b	Storage (< 10% of the floor area)	51 m²
Basement 3	7a	Carpark	1,490m²
	7a	Carpark	1,438 m²
	7b	Storage (< 10% of the floor area)	52m²
Basement 2	7a	Carpark	1,489m²
	7a	Carpark	1,437 m²
	7b	Storage (< 10% of the floor area)	52m²
Basement 1	7a	Carpark	1,531m²
	7a	Carpark	1,465m²
	7b	Storage (< 10% of the floor area)	39.73²
Ground Floor	2, 6, 7a & 7b	Residential, Retail, Carpark, storage	1309m²
	2	Residential	-
	6	Retail	37 m²
	7a	Carpark	786 m²
	7b	Bike and waste Storage (> 10% of the floor area)	131m²
Upper Ground Floor	2	Residential	777m²
	2	Residential including residential amenity spaces	754m²
	7b	Childcare Storage (< 10% of the floor area)	23m²
Level 1	2 & 9b	Residential, Childcare, community & centre	1335m²
	2	Residential	-
	9b	Childcare	436m²
	9b	Community Centre	113m²
Levels 02 – 17	2	Residential	-
Roof	2	-	-

Note:

1. In accordance with Clause A6.0, Exemption 1 of the BCA, for the purposes of determining a building classification, where an ancillary use does not occupy greater than 10% of the floor area of the storey which it is situated on, it may be absorbed into the dominate use for that level.
2. The common areas, including gym, cinema, swimming pool and wine store have considered as ancillary to Class 2, as the client has confirmed these areas will be accessed by residents of the building, and not open to the general public.

2.2 Fire Compartments

For the purposes of the assessment outlined in this Report, the following fire compartments are assumed:

1. The car parking areas located at Basement level 04 and Basement level 01 are considered one fire compartment.
2. The assembly areas located on the upper ground is considered one fire compartment.
3. The childcare and community centre on the level 1 is considered one fire compartment.
4. Level ground floor – Level 17 residential part are considered one fire compartment.

2.3 Required Exits

For the purposes of the assessment outlined in this Report, the following are considered as the exits from the building:

1. The two stairways which provide egress from the basement level.
2. The main entry doorway on Canberra Avenue.
3. The fire isolated stairway which provides egress from level 1 to level 17
4. The perimeter doors to the childcare and community centre on level 1.

3 Fire Safety Measures

Given the assessment in this Report, the following fire safety measures are required to be installed in the building. This list is subject to minor change if Performance Solutions are proposed, or other options are taken during the Construction Certificate (CC) and/or construction stages.

	Fire Safety Measure	Standard of Performance
1.	Access panels, doors and hoppers to fire-resisting shaft	BCA 2019 Amendment 1 clause C3.13 Manufacturer's Specifications
2.	Automatic fail-safe devices (automatic doors)	BCA 2019 Amendment 1 clause D2.19 Manufacturer's Specifications
3.	Automatic fail-safe devices (electronic latching)	BCA 2019 Amendment 1 clause D2.21 Manufacturer's Specifications
4.	Automatic fire detection and alarm systems	BCA 2019 Amendment 1 clause E2.2 and Specification E2.2a AS 1670.1-2018 AS 3786-2014
5.	Automatic fire suppression systems (sprinklers)	BCA 2019 Amendment 1 clause E1.5 and Specification E1.5 AS 2118.1-2017
6.	Emergency lifts	BCA 2019 Amendment 1 clause E3.4
7.	Emergency lighting	BCA 2019 Amendment 1 clause E4.2 & E4.4 AS/NZS 2293.1-2018
8.	Emergency Warning and intercom system (EWIS)	BCA 2019 Amendment 1 clause E4.9 AS 1670.4
9.	Exit signs	BCA 2019 Amendment 1 clause E4.5, E4.6 & E4.8 AS/NZS 2293.1-2018
10.	Fire control centre	BCA 2019 Amendment 1 clause E1.8 and Specification E1.8 Clause 1 to 12.
11.	Fire dampers	BCA 2019 Amendment 1 clause C3.15 AS 1668.1-2015 Manufacturer's Specification
12.	Fire doors	BCA 2019 Amendment 1 clause C3.2, C3.4, C3.8, & C3.11 and Specification C3.4 clause 2 AS 1905.1-2015
13.	Fire hose reel systems (Carpark, commercial areas, storage areas and the community and child care centres)	BCA 2019 Amendment 1 clause E1.4 AS 2441-2005
14.	Fire hydrant systems	BCA 2019 Amendment 1 clause E1.3 AS 2419.1-2005 Performance Solution
15.	Fire seals protecting openings in fire-resisting components of the building	BCA 2019 Amendment 1 clause C3.15 and Specification C3.15 AS 1530.4-2014 AS 4072.1-2005 Manufacturer's Specification
16.	Lightweight construction (fire rated)	BCA 2019 Amendment 1 clause C1.8 and Specification C1.8 Manufacturer's Specification
17.	Mechanical air handling systems (automatic shutdown)	BCA 2019 Amendment 1 E2.2 and Specification E2.2a AS 1668.1-2015

	Fire Safety Measure	Standard of Performance
18.	Portable fire extinguishers	BCA 2019 Amendment 1 Clause E1.6 AS 2444-2001
19.	Smoke dampers	BCA 2019 Amendment 1 C2.5, Specification C2.5, and clause E2.2 AS 1668.1-2015
20.	Smoke doors	BCA 2019 Amendment 1 Clause C2.5, Specification C2.5, and Specification C3.4 clause 3
21.	Stair pressurisation system	BCA 2019 Amendment 1 Clause D1.7, Clause E2.2, and Specification E2.2a AS 1668.1-2015
22.	Zone pressurisation system	BCA 2019 Amendment 1 Clause E2.2 AS 1668.1-2015
23.	Warning and operational signs	BCA 2019 Amendment 1 Clause D2.23 & E3.3 Environmental Planning and Assessment Development Certification & Fire Safety Regulation –section 108
24.	Fire alarm monitoring	BCA 2019 Amendment 1 Clause E2.2 and Specification E2.2a clause 8 AS 1670.3-2018

4 Fire Resistance Levels

The following fire resistance levels (FRLs) are required for the various elements of the building. Where the table below refers to a fire source feature (FSF), this is as defined in the NCC as the far boundary of a road, river, lake or the like adjoining the allotment, or a side or rear boundary of the allotment, or an external wall of another building on the allotment which is not a Class 10 building.

Building Element - Type A Construction	**Class 2 Residential (SOUs)**	**Class7a or 9 Carpark, Community centre, Childcare, Gym**	**Class 6 (Retail)**	**Class 7b (Storage)**
Loadbearing External Walls				
- Less than 1.5m from a FSF	90/90/90	120/120/120	180/180/180	240/240/240
- 1.5-3m from a FSF	90/60/60	120/90/90	180/180/120	240/240/180
- 3m or more from a FSF	90/60/30	120/60/30	180/120/90	240/180/90
Non-Loadbearing External Walls				
- Less than 1.5m from a FSF	-/90/90	-/120/120	-/180/180	-/240/240
- 1.5-3m from a FSF	-/60/60	-/90/90	-/180/120	-/240/180
- 3m or more from a FSF	-/-/-	-/-/-	-/-/-	-/-/-
External Columns (not incorporated into an external wall)				
- Loadbearing	90/-/-	120/-/-	180/-/-	240/-/-
- Non-Loadbearing	-/-/-	-/-/-	-/-/-	-/-/-
Common Walls and Fire Walls	90/90/90	120/120/120	180/180/180	240/240/240
Internal Walls - Fire resisting lift and stair shafts				
- Loadbearing	90/90/90	120/120/120	180/120/120	240/120/120
- Non-Loadbearing	-/90/90/90	-/120/120	-/120/120	-/120/120
Internal Walls - Bounding public corridors, public lobbies and the like				
- Loadbearing	90/90/90	120/-/-	180/-/-	240/-/-
- Non-Loadbearing	-/60/60	-/-/-	-/-/-	-/-/-
Internal Walls - Between or bounding sole-occupancy units				
- Loadbearing	90/90/90	120/-/-	180/-/-	240/-/-
- Non-Loadbearing	-/60/60	-/-/-	-/-/-	-/-/-
Internal Walls - Ventilating, pipe, garbage and the like, shafts not used for discharge of hot products of combustion				
- Loadbearing	90/90/90	120/90/90	180/120/120	240/120/120
- Non-Loadbearing	-/90/90	-/90/90	-/120/120	-/120/120

Building Element - Type A Construction	Class 2 Residential (SOUs)	Class7a or 9 Carpark, Community centre, Childcare, Gym	Class 6 (Retail)	Class 7b (Storage)
Other loadbearing internal walls, internal beams, trusses and columns	90/-/-	120/-/-	180/-/-	240/-/-
Floors	90/90/90	120/120/120	180/180/180	240/240/240
Roofs	90/60/30	120/60/30	180/60/30	240/90/60

Notes:

Clause 2.5(c) of Specification C1.1 grants a concession to structures located on roofs to house plant and equipment to not have a Fire-Resistance Level (FRL) provided their construction is non-combustible.

Clause 3.5 of Specification C1.1 grants a concession for roofs of Class 2 and 3 buildings to not have a FRL provided the roof covering is non-combustible.

5 Matters for Further Consideration

5.1 Assessment

The reviewed documentation referenced in Annexure A of this Report has been assessed against the Deemed-to-Satisfy (DtS) provisions of the NCC. This assessment has identified the following areas where compliance with the NCC will require further consideration.

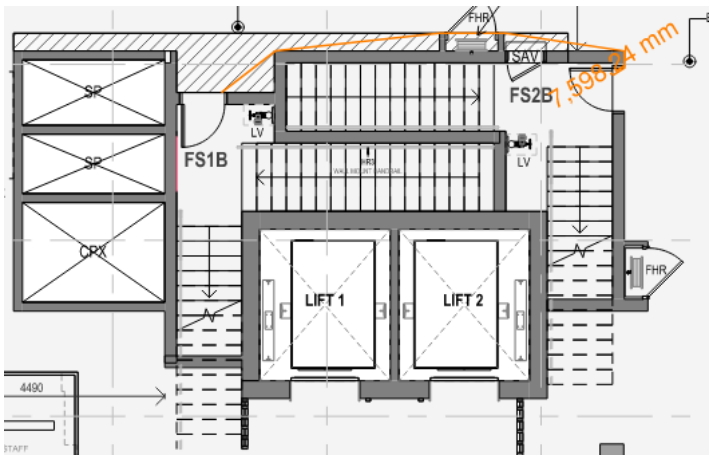
Annexure B of this Report provides a detailed assessment of the proposal against each of the relevant DtS provisions of the NCC.

5.2 Possible Performance Solutions

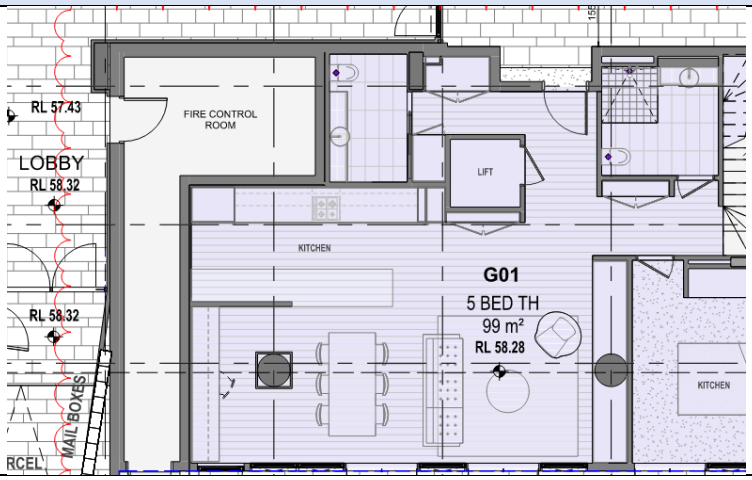
The following items relate to areas where a Performance Solution may be available to justify a deviation from the DtS requirements of the NCC. This Report does not form a Performance Solution.

Item	Possible Performance Solution	DtS Provision	Performance Requirements
1.	**Reduction of FRLs** It is anticipated that the retail areas on ground floor will be subject to a proposed reduction of FRL from 180 minutes to 120 minutes.	C1.1 C2.8 C2.9 Spec C1.1	CP1 CP2
2.	**Bin Rooms containing a garbage chute** Clause 2.7 of Spec C1.1 specifies that shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL of 90 minutes. The buildings contain Garbage Chutes which run vertically through the residential levels and discharge directly into the waste rooms. Due to typical arrangements, the bottom of the garage chutes cannot meet the Deemed-to-satisfy provisions by being enclosed whilst achieving an FRL of 90 minutes. Furthermore, there is a roller shutter in the bin room that will not achieve the insulation rating.	C1.1 Spec C1.1	CP2
3.	**Fire-Resisting Construction – Slab Edge** In accordance with Clause C1.1, each building element must achieve an FRL in accordance with Table 3 of Specification C1.1 Gaps between the fire rated floors and external wall systems of the building may not meet the fire separation requirements of specification C1.1.	C1.1 Spec C1.1	CP1 CP2
4.	**Ancillary Attachments to the External Wall** In accordance with clause C1.14 of the BCA, attachments to the external walls must be non-combustible, except where exempt by the clause.	C1.14	CP1 CP2

Item	Possible Performance Solution	DtS Provision	Performance Requirements
	The Deemed-to-satisfy provisions are not met as fixed planter boxes, proposed to contain living plants appear to be attached to various portions of the external façade (balconies). Living plants cannot be tested in accordance with AS 1530.1 and therefore must be assessed on a Performance Basis.		
5.	**Openings in external walls** Openings in the external wall are to be protected in alternative means other than as required by Clause C3.4.	C3.2 C3.4	CP2 CP8
6.	**Number of exits required** Clause D1.2 of the BCA specifies that as the building has an effective height of more than 25m, it must contain at least two (2) exits from each storey. The Deemed-to-Satisfy provisions are not met as the following locations are provided with access to one (1) exit in lieu of two (2) exits: • <u>Class 9b</u> The childcare centre and community centre part of the building located on level 1	D1.2	DP4 EP2.2
7.	**Exit travel distances** The following areas have been provided with non-complaint exit travel distances: • <u>Ground floor carpark</u> The ground floor park has been provided with a non-compliant distance to a point of choice measured to be 23m in lieu of 20m • <u>Upper ground floor</u> The upper ground floor has been provided with a with a non-complaint distance to a point of choice from the swimming pool area, measured to be 28m in lieu of 20m • <u>Level 1</u> The travel distance has been measured to be 34m to an exit from the community centre in lieu of 20m to a single exit (being the open space). • <u>Residential Levels</u> The exit travel distances within the residential parts of the building level 2 to level 17 have been provided with a	D1.4	DP4 EP2.2

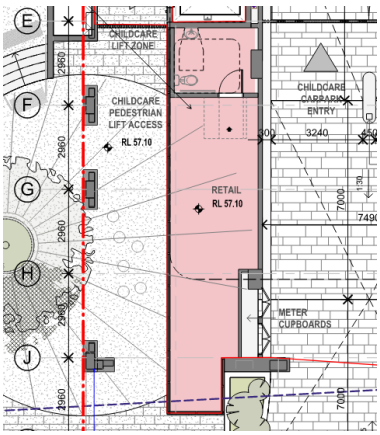
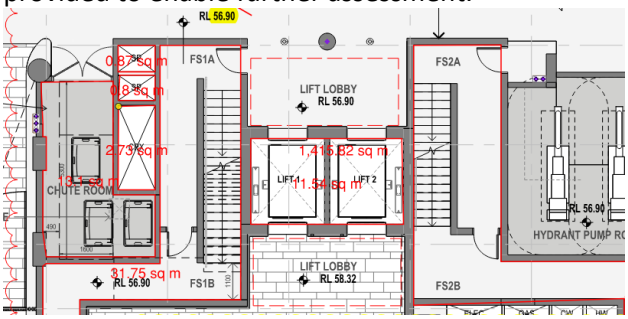
Item	Possible Performance Solution	DtS Provision	Performance Requirements
	non-complaint distance measured at 10m to a point where two exits are available. The exit travel distances do not meet the deemed to satisfy provisions of the NCC and must be assessed on a Performance Basis at construction stage.		
8.	**Distance between alternative Exits** The distance between exits on Basement level 1 is 7.6m in lieu of 9.0m minimum  The distances between do not meet the deemed to satisfy provisions of the NCC and must be assessed on a Performance Basis at construction stage	D1.5	DP4 EP2.2
9.	**Travel via fire-isolated exits** The fire-isolated stairs from the residential levels adjacent the residential lobby discharges within the entry lobby which is under the building line in lieu of discharging directly (or via a fire-isolated passageway) to a road or open space or to a part of a building in accordance with Clause D1.7(b)(ii) or D1.7 (b)(iii). Furthermore the path of travel from the discharge point to open space requires travel pass unprotected openings Clause D1.7(c). This can be supportable via a performance solution with a fire engineer.	D1.7	DP4 EP2.2
10	**Travel via Fire Isolated exits – Doors opening into Fire-Isolated Exits** In accordance with clause D1.7, a doorway from a room must not open directly into a fire-isolated stairway, or fire-isolated	D1.7	DP4 EP2.2

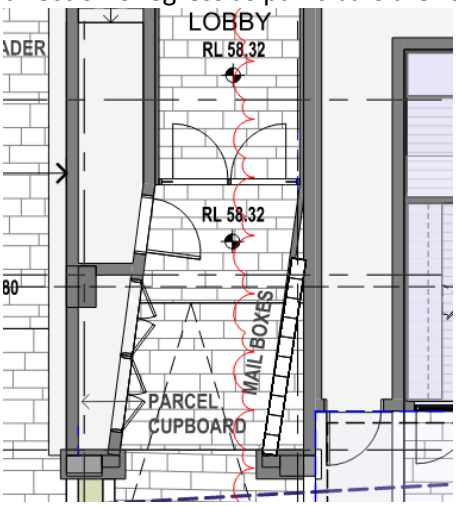
Item	Possible Performance Solution	DtS Provision	Performance Requirements
	passageway unless it's from an airlock or the like. The Deemed-to-Satisfy provisions are not met as the pump rooms opens directly onto Fire isolated passageway on Ground Floor.		
11	**Portable fire extinguishers** The Class 2 parts of the building includes two storey sole occupancy units. Clause E1.6 (b)requires portable fire extinguishers to serve only the storey at which they are located. Clause E1.6 (b) requires the portable fire extinguishers the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m. On review of the proposed floor plans for the building, this would be a Dts departure. Due to the entry doorways of the ground floor two storey units are on the ground level. Therefore, the provision of a portable fire extinguisher at the main entrance of the sole-occupancy unit would be a technical non-compliance with Clause E1.6 (b) as it will not permit to serve the storeys above.	E1.6	EP1.6
12	**Fire control centres** The fire control room has been proposed to be constructed and have two steps at the entry doorway located at the front entrance of the building. The provision of the steps in lieu of a landing is considered to be a technical non-compliance with Specification E1.8 Clause 8(a) due to the steps can obstruct or hinder access to the room. At the construction certificate stage, a fire engineer will need to carry out the feasibility to address the fire control DtS departure from Specification E1.8 Clause 8(a).	D2.15 E1.8 Spec E1.8 (8)(a)	CP9 EP1.6

Item	Possible Performance Solution	DtS Provision	Performance Requirements
			
13	**Provision for special hazards** The provision for solar panels on the roof top is considered a special hazard to be considered as part of the Fire Engineering assessment A fire-engineered performance solution will be required to address this deviation.	E1.10	EP1.1 EP1.2 EP1.3 EP1.4 EP2.2
14	**Zone Pressurisation System** There are Class 6, 7b and 9b parts located across more than 1 fire compartment in the building and therefore a zone pressurisation system in accordance with AS 1668.1 is required. A Performance Solution may be prepared to omit a zone pressurisation system.	E2.2	CP4 EP2.2
15	**Weatherproofing of the External walls** The proposed method of weatherproofing the roof and external wall is to be assessed a on Performance Basis. A Performance Solution is to be prepared by a registered Architect or Façade Engineer in consultation with all stakeholders and submitted as part of the Construction Certificate Application.	-	FP1.4

5.3 Required Design Amendments

The following items have been identified as departures from the BCA deemed-to-satisfy provisions, and Credwell recommend these items to be resolved with minor design amendments prior to the application for construction certificate:

Item	Design amendments required	DtS Provision
1.	**Number of exits required** The retail part of the building has not been shown with a doorway which may affect our assessment of travel distances.  *An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.*	D1.2
2.	**Separation of rising and descending stairs** The stairs rising from the basement levels to the ground floor appear to connect to the stairs descending from the residential levels to the ground floor. In accordance with D2.4, rising and descending stairs are to be separated with smoke proof construction. Further information to be provided to enable further assessment.  *An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.*	D2.4
3.	**Swinging doors** The main entry doors to the ground floor lobby will be required to amended to swing outwards in the direction of egress.	D2.20

Item	Design amendments required	DtS Provision
	The double doors to the community centre are required to swing in the direction of egress as panic bars are required under Clause D2.21  *An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.*	
4.	**Facilities in Class 3 to 9 buildings** At the design team has proposed that the childcare part of the building on level one will include a population of 60 Children and 14 staff. *An assessment against this provision is not included in a DA stage report due to the level of documentation provided. Pending further engagement, this will be assessed upon receipt of Construction Documentation.*	F2.3

6 Statement of Compliance

Credwell Consulting have completed a high level assessment of the subject proposed development for the Development Application Stage, as indicated on the drawings referenced in Annexure A of this Report, against the relevant requirements of the NCC. The details of this are specified in the Assessment Table provided in Annexure B of this Report. Subject to this assessment, Credwell Consulting advise that the design of the proposed development complies, or is capable of complying, with the relevant requirements of the NCC.

Annexure A - Reviewed Documentation

This Report is based on review of the documentation listed below prepared by SJB Architects

Drawing Number	Revision	Title
DA-0201	66	Floor Plan B4
DA-0202	66	Floor Plan B3
DA-0203	66	Floor Plan B2
DA-0204	66	Floor Plan B1
DA-0205	66	Floor Plan Ground
DA-0206	66	Floor Plan Upper Ground
DA-0207	66	Floor Plan L1
DA-0208	66	Floor Plan L2
DA-0209	66	Floor Plan L3
DA-0210	66	Floor Plan L4
DA-0211	66	Floor Plan L5
DA-0212	66	Floor Plan L6-L7
DA-0214	66	Floor Plan L8-L10
DA-0215	66	Floor Plan L9
DA-0216	66	Floor Plan L10
DA-0217	66	Floor Plan L11
DA-0218	66	Floor Plan 12-15
DA-0221	66	Floor Plan L16
DA-0222	66	Floor Plan L17
DA-0223	66	Roof Plan
DA-0501	66	North Elevation
DA-0502	66	East Elevation
DA-0503	66	South Elevation
DA-0504	66	West Elevation
DA-0601	66	Building Section 1

Annexure B - Detailed Assessment

The following Assessment Table outlines a clause by clause review of the subject proposed development against the relevant Deemed-To-Satisfy (DTS) provisions of the NCC. Where a clause is not relevant to the proposed development, no discussion of that clause is provided.

The following abbreviations have been used in the table below:

PS **Performance Solution**
The design does not comply with the clause, however, a Performance Solution is proposed to justify the design in its current format.

CRA **Compliance Readily Achievable**
It is considered that, whilst there is insufficient information currently provided to determine strict compliance with the relevant DTS clause, the proposed design can comply in its current format.

Complies The proposed design complies with the relevant DTS clause

DNC **Does Not Comply**
The proposed design does not comply with the relevant DTS clause and requires amendment.

FI **Further Information**
Further information is required to determine whether the proposed design satisfies the requirements of the relevant DTS clause.

N/A **Not Applicable**
The relevant DTS clause is considered not applicable to the subject proposed development but requires further explanation to confirm reason(s).

Noted The relevant DTS clause specifies information only, no assessment is required.

SECTION B - STRUCTURE			
Clause		**Comments**	**Assessment**
Part B1 – Structural provisions			
B1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
B1.1	Resistance to actions	Resistance to actions must be in accordance with this clause. Structural Engineer to certify.	CRA
B1.2	Determination of individual actions	The magnitude of individual actions must be determined in accordance with this clause.	CRA
B1.4	Determination of structural resistance of materials and forms of construction	The structural resistance of materials and forms of construction must be determined in accordance with this clause. Structural Engineer to certify.	CRA
B1.5	Structural software	Structural software used in computer aided design of a building or structure must comply with the ABCB Protocol for Structural Software in accordance with this clause. Structural Engineer to certify.	CRA
B1.6	Construction of buildings in flood hazard areas	A Class 2 or 3 building, Class 9a health-care building, Class 9c building or Class 4 part of a building in a flood hazard area must comply with this clause.	CRA

SECTION C - FIRE RESISTANCE			
Clause		**Comments**	**Assessment**
Part C1 - Fire resistance and stability			
C1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
C1.1	Type of construction required	The building, having a rise in storeys of 16 and containing a Class 2 part on the top storey, is required to be Type A construction. Each building element must comply with Specification C1.1 as applicable.	CRA
C1.2	Calculation of rise in storeys	The building has a rise in storeys of 19	Noted
C1.3	Buildings of multiple classification	The top storey of the building contains a Class 2 part.	Noted
C1.4	Mixed types of construction	The building will be a single type of construction – Type A, therefore this clause does not apply.	Noted
C1.5	Two storey Class 2, 3 or 9c buildings	The building will be of Type A construction; therefore, this clause does not apply.	N/A
C1.6	Class 4 parts of buildings	The building does not contain a class 4 part; therefore, this clause does not apply.	N/A
C1.8	Lightweight construction	If lightweight construction is utilised to achieve an FRL, it must comply with this clause and Specification C1.8.	CRA
C1.9	Non-combustible building elements	The building is required to be of Type A construction, therefore, the building elements listed in this clause must be non-combustible. Where a building element is required to be non-combustible, all materials forming that element are to be non-combustible. This clause also identifies building elements to which it does not apply. Also, it should be noted that wall systems utilising permanent polymer/PVC formwork (e.g. Dincel, Rediwall, etc.) used where the NCC requires the element to be non-combustible, must be justified by a Performance Solution prepared by a suitably qualified fire safety engineer.	CRA
C1.10	Fire hazard properties	The fire hazard properties of all materials must comply with this clause and Specification C1.10.	CRA

<table>
<tr><th colspan="2">Clause</th><th>Comments</th><th>Assessment</th></tr>
<tr><td>C1.11</td><td>Performance of external walls in fire</td><td>The building has a rise on storeys of 15, therefore this clause does not apply.</td><td>N/A</td></tr>
<tr><td>C1.13</td><td>Fire-protected timber: Concession</td><td>Fire-protected timber has not been proposed in this building.</td><td>N/A</td></tr>
<tr><td>C1.14</td><td>Ancillary elements</td><td>In accordance with clause C1.14 of the BCA, attachments to the external walls must be non-combustible, except where exempt by the clause.

The Deemed-to-satisfy provisions are not met as fixed planter boxes, proposed to contain living plants appear to be attached to various portions of the external façade (balconies). Living plants cannot be tested in accordance with AS 1530.1 and therefore must be assessed on a Performance Basis.

Further detail is to also be provided to confirm the construction of the planter boxes and any element contained within them.</td><td>DNC
PS refer to section 5</td></tr>
<tr><td colspan="4">Part C2 – Compartmentation and separation</td></tr>
<tr><td>C2.0</td><td>Deemed-to-Satisfy Provisions</td><td>Information only.</td><td>Noted</td></tr>
<tr><td>C2.1</td><td>Application of Part</td><td>Clause C2.2, C2.3 and C2.4 do not apply to a carpark provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification E1.5 or an open-deck carpark.</td><td>Noted</td></tr>
<tr><td>C2.2</td><td>General floor area and volume limitations</td><td>
<table>
<tr><td>Class 2</td><td>The Class 2 part of the building are not subject to the floor area and volume limitations of C2.2. Rather, Table 3 of Specification C1.1 and clause C3.11 regulate the compartmentation and separation requirements applicable to Class 2 buildings or parts.</td></tr>
<tr><td>Class 6 & 7b</td><td>Maximum Floor Area 5,000m^2
Maximum Volume 30,000m^3</td></tr>
<tr><td>Class 7a</td><td>The carpark is required to be sprinkler protected, therefore, depending on the type of sprinkler system installed, may not be subject to maximum floor area or volume limitations (see clause C2.1). Regardless, having a floor area of approximately 6,124m2, the Class 7a part of the building complies with the requirements of this clause.</td></tr>
<tr><td>Class 9b</td><td>Maximum Floor Area 8,000m^2
Maximum Volume 48,000m^3</td></tr>
</table>
Area and Volume limitations do not exceed DtS</td><td>CRA</td></tr>
<tr><td>C2.6</td><td>Vertical separation of openings in external walls</td><td>The requirements of this Clause are not applicable to the building, as a sprinkler system complying with AS2118.1-2017 has been proposed to be installed throughout the class 2 part of the building.</td><td>N/A</td></tr>
<tr><td>C2.7</td><td>Separation by fire walls</td><td>Where firewalls are utilised, they must comply with this clause.</td><td>CRA</td></tr>
<tr><td>C2.8</td><td>Separation of classifications in the same storey</td><td>The building contains storeys with different classifications located alongside one another. Each building element will be required to be provided with the highest FRL prescribed in Specification C1.1 Table 3 of the NCC or the different classifications must be separated from one another by fire walls.</td><td>CRA</td></tr>
<tr><td>C2.9</td><td>Separation of classifications in different storeys</td><td>The building contains storeys with different classifications located above the other in adjoining storeys. The floor between the adjoining parts with different classifications must have an FRL of</td><td>CRA
PS Refer to section 5</td></tr>
</table>

Clause		Comments	Assessment
		not less than that prescribed in Specification C1.1 for the classification of the lower storey. It is anticipated that the retail areas on ground floor will be subject to a proposed reduction of FRL from 180 minutes to 120 minutes	
C2.10	Separation of lift shafts	The lift must be enclosed within a shaft that has the FRLs outlined in Specification C1.1 with reference to the classification in which it is located. Based on the review of the architectural plans we cannot determine if the wall type details have been nominated.	CRA
C2.11	Stairways and lifts in one shaft	The fire-isolated stairway and the lift are in separate shafts.	CRA
C2.12	Separation of equipment	Equipment including lift motor rooms, emergency generators sustaining emergency equipment operating in emergency mode, central smoke control plan, boilers or battery areas with a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours must be fire separated from the remainder of the building in accordance with this clause.	CRA
C2.13	Electricity supply system	If the main switch room sustains emergency equipment operating in emergency mode, the room is to be separated from the remainder of the building with construction having a FRL of not less than 120/120/120. Where emergency equipment is required in a building, all switchboards in the electrical installation that sustain the electricity supply to the emergency equipment must be constructed so that emergency equipment switchgear is separated from non-emergency equipment switchgear by metal partitions designed to minimise the spread of a fault from the non-emergency equipment switchgear.	CRA
C2.14	Public corridors in Class 2 and 3 buildings	The Class 2 parts of the building do not incorporate any public corridors that have a length of more than 40m.	N/A
Part C3 – Protection of openings			
C3.0	Deemed-to-Satisfy Provisions	Information only.	Noted
C3.1	Application of Part	Information only.	Noted
C3.2	Protection of openings in external walls	There are openings in the external walls facing towards the Southern boundary of which are located within 3m of side boundary being the windows located in community centre and childcare. These openings must be adequately shielded from exposure or protected by one of the methods specified by clause C3.4.	CRA
C3.3	Separation of external walls and associated openings in different fire compartments	The distance between parts of external walls and any openings within them in different fire compartments separated by a fire wall must not be less than that set out in Table C3.3 are to be protected by construction with an FRL not less than 60/60/60 and the associated openings protected in accordance with Clause C3.4.	CRA
C3.4	Acceptable methods of protection	The openings in external walls requiring protection under clause C3.2 must be protected in accordance with the requirements of this clause being: (i) Window openings that are required to be protected are to be protected by internal or external wall-wetting sprinklers with windows that are automatic closing or permanently fixed in the closed position, -/60/- fire windows that are automatic closing or permanently fixed closed or -/60/60 automatic closing fire shutters.	**CRA** **PS Refer to section 5**

Clause		Comments	Assessment
		Alternatively, a fire engineering performance solution can be prepared to justify the openings located on the Southern boundary to be not protected in accordance with Clause C3.4.	
C3.5	Doorways in fire walls	If fire walls are utilised, any doorways through them must be protected in accordance with the requirements of this clause.	CRA
C3.6	Sliding fire doors	There are no sliding fire doors within the subject buildings fire walls, there for this clause is not applicable.	N/A
C3.7	Protection of doorways in horizontal exits	No horizontal exits are located within the subject building.	N/A
C3.8	Openings in fire-isolated exits	The doorways opening into the fire-isolated exits, that are not doorways opening to a road or open space, must be protected with self-closing -/60/30 fire door sets.	CRA
C3.9	Service penetrations in fire-isolated exits	Fire-isolated exits must not be penetrated by any service other than electrical wiring for lighting and intercom systems, water supply for fire services, and other fire related services.	CRA
C3.10	Openings in fire-isolated lift shafts	The lift doors must achieve an FRL of not less than -/60/- and be in accordance with this clause. Also, the lift indicator panels must comply with this clause.	CRA
C3.11	Bounding construction: Class 2 and 3 buildings and Class 4 parts	The FRL for self-closing fire doors, as required by C3.11, may be reduced to not less than -/60/30. The lift shaft opening into the Sou is a non-compliance with the requirements of Clause C3.11 (e), as the lift doorways can only achieve an FRL of 60/-/- fire door in lieu of the required self-closing -/60/30 fire door. This can be supportable via a performance solution with a fire engineer.	**PS Refer to section 5**
C3.12	Openings in floors and ceilings for services	All service shafts must achieve the FRLs outlined by Table 3 of Specification C1.1.	CRA
C3.13	Openings in shafts	Openings providing access to service shafts must be protected in accordance with this clause.	CRA
C3.15	Openings for service installations	The protection of service penetrations through fire rated building elements must comply with this clause.	CRA
C3.16	Construction joints	Construction joints in fire rated building elements must be protected in accordance with this clause.	CRA
C3.17	Columns protected with lightweight construction to achieve an FRL	Any columns protected with lightweight fire rated materials to achieve the required FRL must comply with this clause.	CRA
Specification C1.1 – Fire-resisting construction			
1	Scope	This Specification contains the requirements for fire resisting construction of building elements.	Noted
2	General Requirements	-	-
2.1	Exposure to fire-source-features	The building is exposed to fire source feature FSF from the Southern boundary off the neighbouring allotment.	CRA
2.2	Fire protection for support of another part	Where a part of a building required to have a FRL depends on direct vertical or lateral support from another part to maintain its FRL. That supporting part must have a FRL not less than that required by other provisions as set out in this Clause.	CRA
2.3	Lintels	A lintel must have the FRL required for the part of the building in which it is situated unless it complies with the exemption requirements of this clause.	CRA
2.4	Method of attachment not to reduce the fire-	The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire-resistance of that element to below that required.	CRA

Clause		Comments	Assessment
	resistance of building elements		
2.5	General concessions	The proposed building does not meet the provisions of this concession.	N/A
2.6	Mezzanine floors: Concession	The proposed building does not meet the provisions of this concession.	N/A
2.7	Enclosure of shafts	Shafts required to have an FRL must be enclosed at the top and bottom by construction having an FRL not less than that required for the walls of a non-loadbearing shaft in the same building, except that these provisions need not apply to - (a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or the bottom of a shaft if it is non-combustible and laid directly on the ground.	**PS Refer to section 5**
2.8	Carparks in Class 2 and 3 buildings	The proposed building does not meet the provisions of this concession as the building has a rise in storeys of fifteen (15)	N/A
3	**Type A Construction**	-	-
3.1	Fire-resistance of building elements	The building elements must have FRLs as determined by this clause. See Part 4 of the Report.	CRA
3.2	Concessions for floors	This clause outlines concessions for when a floor is not required to have a FRL.	Noted
3.5	Roof: Concession	The roof, being the roof of a Class 2 building, is not required to have an FRL if its covering is non-combustible.	CRA
3.6	Roof lights	The proposed roof skylights comply with the requirements of this clause.	CRA
3.7	Internal columns and walls: Concession	The internal columns (except those referred to in clause 3.1(f) Specification C1.1) and walls (except fire walls and shaft walls) within the storey immediately below the roof are granted a concession by this clause to have an FRL of no less than 60/60/60	Noted
3.9	Carparks	The building does not contain a carpark therefore this Clause does not apply.	N/A
3.10	Class 2 and 3 buildings: Concession	The building is greater than fifteen storeys and therefore the concessions under this clause do not apply.	N/A
4	**Type B Construction**	-	-
4.1	Fire-resistance of building elements	The building is of Type A construction, therefore this Clause does not apply.	N/A
4.2	Carparks	The building is of Type A construction, therefore this Clause does not apply.	N/A
4.3	Class 2 and 3 buildings: Concession	The building is of Type A construction, therefore this Clause does not apply.	N/A
5	**Type C Construction**	The building is of Type A construction, therefore this Clause does not apply.	N/A
5.1	Fire-resistance of building elements	The building is of Type A construction, therefore this Clause does not apply.	N/A
5.2	Carparks	The building is of Type A construction, therefore this Clause does not apply.	N/A
Specification C1.8 – Structural tests for lightweight construction			
1	Scope	This Specification describes test methods to be applied to and criteria to be satisfied by a wall system of light weight construction.	Noted
2	Application	Information only.	Noted
3	Tests	Tests to walls and lift shafts to comply with this clause.	CRA
4	Test specimens	Testing to comply with this clause.	CRA
5	Test methods	Tests to be carried out in accordance with this clause.	CRA
6	Criteria for compliance	The wall system or the specimen of it must comply with this clause.	CRA
Specification C1.10 – Fire hazard properties			

Clause		Comments	Assessment
1	Scope	This Specification sets out requirements in relation to the fire hazard properties of linings, materials and assemblies in buildings.	Noted
2	Application	Linings, materials and assemblies must comply with the appropriate provisions described in Table 1 of this clause.	Noted
3	Floor linings and floor coverings	Fire hazard properties of the floor linings and floor coverings are to comply with this clause.	CRA
4	Wall and ceiling linings	Fire hazard properties of the wall and ceiling linings are to comply with this clause.	CRA
5	Air-handling ductwork	Fire hazard properties of the air-handling ductwork are to comply with this clause.	CRA
6	Lift cars	Fire hazard properties of the lift cars are to comply with this clause.	CRA
7	Other materials	Fire hazard properties of other materials not covered in Clauses 3, 4, 5 or 6 above are to comply with this clause.	CRA
Specification C1.11 – Performance of external walls in a fire			
1	Scope	This Specification contains measure to minimise, in the event of fire, the likelihood of external walls covered by clause 2 collapsing outwards as complete panels and the likelihood of panels separating from supporting members.	Noted
2	Application	Information only.	Noted
3	General requirements for external wall panels	The building has a rise in storeys of sixteen (16) therefore this clause does not apply.	N/A
4	Additional requirements for vertically spanning external wall panels adjacent to columns	The building has a rise in storeys of sixteen (16), therefore this clause does not apply.	N/A
Specification C1.13 – Cavity barriers for fire-protected timber			
1	Scope	This Specification sets out requirements for cavity barriers in fire-protective timber construction.	Noted
2	Requirements	The building must comply with the requirements of this clause.	CRA
Specification C1.13a – Fire-protected timber			
1	Scope	The concession does not apply to the building.	N/A
2	Requirements	The concession does not apply to the building.	N/A
2.1	General requirements	The concession does not apply to the building.	N/A
2.2	Massive timber	The concession does not apply to the building.	N/A
3	Determination of time the timber interface temperature exceeds 300°C for timber at least 75 mm thick	The concession does not apply to the building.	N/A
3.1	Form of test	The concession does not apply to the building.	N/A
3.2	Smaller specimen permitted	The concession does not apply to the building.	N/A
3.3	Acceptance criteria	The concession does not apply to the building.	N/A
Specification C3.4 – Fire doors, smoke doors, fire windows and shutters			
1	Scope	This Specification sets out requirements for the construction of fire doors, smoke doors, fire windows and fire shutters.	Noted
2	Fire Doors	Fire doors must comply with AS1905.1-2015 Amendment 1 and this clause.	CRA
3	Smoke Doors	The building does not contain any smoke doors therefore this Clause does not apply.	CRA
4	Fire Shutters	The building does not contain any fire shutters therefore this Clause does not apply.	CRA

Clause		Comments	Assessment
5	Fire Windows	Fire windows must comply with this clause and the manufacturer's specifications.	CRA
Specification C3.15 – Penetration of walls, floors and ceilings by services			
1	Scope	This Specification prescribes material and methods of installation for services that penetrate walls, floors and ceilings required to have an FRL.	Noted
2	Application	Information only.	Noted
3	Metal pipe systems	Metal pipe system penetration must comply with this clause.	CRA
4	Pipes penetrating sanitary compartments	Pipes penetrating sanitary compartments must comply with this clause.	CRA
5	Wires and cables	Wire and cable penetrations must comply with this clause.	CRA
6	Electrical switches and outlets	Electrical switches and outlets must comply with this clause.	CRA
7	Fire-stopping	Fire-stopping must comply with this clause.	CRA

SECTION D - ACCESS AND EGRESS

Clause		Comments	Assessment
Part D1 – Provision for escape			
D1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
D1.1	Application of Part	The Deemed-to-Satisfy Provisions of this Part do not apply to the internal parts of a sole-occupancy unit in a Class 2 or 3 building or a Class 4 part of a building.	Noted
D1.2	Number of exits required	Clause D1.2 of the BCA specifies that as the building has an effective height of more than 25m, it must contain at least two (2) exits from each storey. The Deemed-to-Satisfy provisions are not met as the following locations are provided with access to one (1) exit in lieu of two (2) exits: • **Class 9b** The childcare centre and community centre part of the building located on level 1	**DNC** **PS**
D1.3	When fire-isolated stairways and ramps are required	The exit stairways are required to be fire-isolated and is indicated as such on the plans.	CRA
D1.4	D1.4	The following areas have been provided with non-complaint exit travel distances: • Ground floor carpark The ground floor park has been provided with a non-complaint distance to a point of choice measured to be 23m in lieu of 20m • Upper ground floor The upper ground floor has been provided with a with a non-complaint distance to a point of choice measured to be 26m in lieu of 20m • Level 1	**DNC** **PS**

Clause		Comments	Assessment
		The travel distance has been measured to be 31m in lieu of 20m to a single exit (being the open space) for the community centre. • <u>Residential Levels</u> The exit travel distances within the residential parts of the building level 2 to level 17 have been provided with a non-complaint distance measured at 9m to a point where two exits are available. The exit travel distances do not meet the deemed to satisfy provisions of the NCC and must be assessed on a Performance Basis at construction stage.	
D1.5	Distance between alternative exits	The distance between exits on Basement level 1 is 6.8m in lieu of 9.0m minimum The distances between do not meet the deemed to satisfy provisions of the NCC and must be assessed on a Performance Basis at construction stage	**DNS** **PS**
D1.6	Dimensions of exits and paths of travel to exits	The exits must have an unobstructed width (measured clear of handrails) of no less than 1,000mm. The width of approximately 1,200mm is required to install compliant handrails to both sides of a stairway.	Complies
D1.7	Travel via fire-isolated exits	The following non compliances have been identified in relation to the travel via fire isolated exits: 1. <u>Doorways in the fire-isolated passageway ground floor</u> There are doorways that open directly into the fire-isolated passageway on the ground. To comply the doorways will be required to be provided with an airlock with a self-closing fire door. 2. <u>Discharge point ground floor</u> The fire-isolated stairs from the residential levels adjacent the residential lobby discharges within the entry lobby which is under the building line in lieu of discharging directly (or via a fire-isolated passageway) to a road or open space or to a part of a building in accordance with Clause D1.7(b)(ii) or D1.7 (b)(iii). Furthermore, the path of travel from the discharge point to open space requires travel pass unprotected openings Clause D1.7(c). The non-compliances related to the discharge point on the ground floor can be supportable via performance solution with a fire engineer.	**DNC** **PS Refer to section 5**
D1.8	External stairways or ramps in lieu of fire-isolated exits	The building has not been provided with external stairways or ramps in lieu of fire-isolated exits; therefore, this clause does not apply	N/A
D1.9	Travel by non-fire-isolated stairways or ramps	All exit stairways serving the building are considered to fire isolated.	N/A
D1.10	Discharge from exits	The discharge from exits must comply with the requirements of this clause.	CRA
D1.11	Horizontal exits	The building has not been provided with horizontal exits.	N/A
D1.12	Non-required stairways, ramps or escalators	The building has not been provided with non-required stairways, ramps or escalators.	N/A

Clause		Comments	Assessment
D1.13	Number of persons accommodated	Class 6 The retail tenancy at the ground floor is assumed to accommodate a maximum of thirty-six (36) people as per the calculation of one (1) person 1m2 for a space. Class 9b The childcare at the level 1 floor is assumed to accommodate a maximum of one hundred and three (103) people as per the calculation of one (1) person per 4 m2 for a space. Note: Please advise should the occupation calculation of the not be in accordance with your expectations as this part of the Report will need to be amended	Noted
D1.14	Measurement of distances	Information only.	Noted
D1.15	Method of measurement	Information only.	Noted
D1.16	Plant rooms, lift machine rooms, electricity network substations: concession	The building does not include ladders in lieu of a stairway to provide egress from plant rooms, lift machine rooms, electricity network substations.	N/A
D1.17	Access to lift pits	If the building incorporates a lift pit, access to it must comply with this clause.	CRA
D1.18	Egress from early childhood centres	Class 9b early childhood centres must be located on a storey that is provided with direct access to a road or open space (eg ground floor), except where the building contains a rise of storeys not more than 2 and the early child care centre is the only use within the building. See discussion under D1.2 in relation to the provision of exits.	FI
Part D2 – Construction of exits			
D2.0	Deemed-to-Satisfy Provisions	Information only.	Noted
D2.1	Application of Part	Clause D2.13, D2.14(a), D2.16, D2.17(d), D2.17(e), D2.21, and D2.24 are the only clauses of this Part that apply to the internal parts of a sole-occupancy unit in a Class 2 building.	Noted
D2.2	Fire-isolated stairways and ramps	Construction of the fire-isolated stairways must be – (a) of non-combustible materials; and (b) so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.	CRA
D2.3	Non-fire-isolated stairways and ramps	The building does not include non-fire-isolated stairways and ramps; therefore, this clause does not apply.	CRA
D2.4	Separation of rising and descending stair flights	The building does not include any connecting rising and descending flights	CRA
D2.5	Open access ramps and balconies	The building does not include open access ramps and balconies; therefore, this clause does not apply.	N/A
D2.6	Smoke lobbies	The building does not include smoke lobbies therefore, this clause does not apply.	N/A
D2.7	Installations in exits and paths of travel	Services or equipment comprising - (i) electricity meters, distribution boards or ducts; or (ii) central telecommunications distribution boards or equipment; or	CRA

Clause		Comments	Assessment
		(iii) electrical motors or other motors serving equipment in the building may be installed in any corridor, hallway, lobby or the like leading to a required exit if the services or equipment are enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure.	
D2.8	Enclosure of space under stairs and ramps	The space below the stairways located within the fire-isolated exits must not be enclosed to form a cupboard or similar enclosed space.	CRA
D2.9	Width of required stairways and ramps	The building does not include required stairways and ramps over 2m in width.	N/A
D2.10	Pedestrian ramps	The floor surface of the ramps must have a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586-2013.	CRA
D2.11	Fire-isolated passageways	The enclosing construction of a fire-isolated passageway must have an FRL, when tested for a fire outside the passageway in another part of the building, of not less than that required for the stairway shaft.	CRA
D2.12	Roof as open space	The childcare outdoor area above the basement carpark is roof as open space and the BBQ outdoor area located on level 16. Any openings from the level below are to be protected.	CRA
D2.13	Goings and risers	The geometry of the stairways and slip-resistance of the stairway treads must comply with this clause.	CRA
D2.14	Landings	The geometry and slip-resistance of landings must comply with this clause.	CRA
D2.15	Thresholds	The thresholds throughout the building are to not include a step or ramp within the width of the door leaf.	CRA
D2.16	Barriers to prevent falls	Barriers (balustrades) must be provided in accordance, and comply, with this clause.	CRA
D2.17	Handrails	The provision of handrails is to comply with this Clause.	CRA
D2.18	Fixed platforms, walkways, stairways and ladders	A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657-2018 in lieu of D2.13, D2.14, D2.16 and D2.17 if it only serves: (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building or Class 4 part of a building.	CRA
D2.19	Doorways and doors	All doorways and doors forming the path travel to an exit are swinging doors and are to comply with the requirements of this clause.	CRA
D2.20	Swinging doors	The main entry doors to the ground floor lobby will be required to amended to swing outwards in the direction of Egress. The double doors to the community centre are required to swing in the direction of egress as panic bars are required under Clause D2.21The doorway design will be required to be amended. The swinging exit doors throughout the building comply. The swinging door(s) serving the exits must not encroach - (a) at any part of its swing by more than 500mm on the required width (including any landings) of a required— (i) stairway; or (ii) ramp; or (iii) passageway, if it is likely to impede the path of travel of the people already using the exit; and	**DNC** **PS refer to section 5**

Clause		Comments	Assessment
		(b) when fully open, by more than 100 mm on the required width of the required exit, and the measurement of encroachment in each case is to include door handles or other furniture or attachments to the door.	
D2.21	Operation of latch	All doorways must be provided with latches compliant with the requirements of this clause.	CRA
D2.22	Re-entry from fire-isolated exits	Fire-isolated stair doorway must always facilitate re-entry from within the stair back onto the floor on every 4th level and on all levels in the event of a fire alarm, where the exit stair serves a storey above 25m in effective height.	CRA
D2.23	Signs on doors	Signage must be located on or adjacent to all fire doors in accordance with this clause. For the self-closing doors, the sign is to say - FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN. For the doors discharging from a fire-isolated exit - FIRE SAFETY DOOR – DO NOT OBSTRUCT. The text is to be a minimum of 20mm in height and of a colour contrasting to the background of the sign.	CRA
D2.24	Protection of openable windows	The windows to the bedrooms must be protected in accordance with this clause. All windows on storeys 4m above the surface below are to be provided with barriers in accordance with the requirements of this clause.	CRA
D2.25	Timber stairways: Concession	The provisions of this Clause do not apply.	N/A
Part D3 – Access for people with a disability			
An assessment of this Part does not form part of the scope of this Report. Rather, it is covered by an Access Report prepared with reference to the proposed development also prepared by this office.			
Part E1 – Fire fighting equipment			
E1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
E1.3	Fire hydrants	The building must be served by a fire hydrant system compliant with AS 2419.1-2005, within fire stairs or at other approved locations in accordance with this Clause. Compliance is to be determined prior to the issue of the Construction Certificate.	CRA
E1.4	Fire hose reels	The basement levels, retail and childcare must be provided with fire hose reels within 4m of the exit in accordance AS 24441-2005. Compliance is to be determined prior to the issue of the Construction Certificate.	CRA
E1.5	Sprinklers	The building has a rise in storeys of greater than fifteen (15) and includes a Class 2 part, therefore, it must be served by a sprinkler system compliant with by a sprinkler system compliant with Specification E1.5a and AS 2118.1-2017.	CRA
E1.6	Portable fire extinguishers	The building must be provided with portable fire extinguishers. Within the Class 2 to class 9 parts, a 2.5kg ABE powder extinguisher must be located within 10m of all sole occupant unit entry doors.	CRA
E1.8	Fire control centres	A fire control centre in accordance with Spec E1.8 are to be provided to: ▪ Buildings with an effective height greater than 25m ▪ Class 6, 7, 8, or 9 buildings with a total floor area greater than 18,000m²	**DNC PS refer to section 5**
E1.9	Fire precautions during construction	In a building under construction, not less than one (1) fire extinguisher to suit Class A, B and C, and electrical fires must be provided on each storey adjacent to each required exit or temporary stairway or exit.	CRA

Clause		Comments	Assessment
E1.10	Provision for special hazards	The provision for solar panels on the rooftop is considered a special hazard to be considered as part of the Fire Engineering assessment A fire-engineered performance solution will be required to address this deviation.	**PS Refer to section 5**
Specification E1.5 – Fire sprinkler systems			
1	Scope	This Specification sets out requirements for the design and installation of fire sprinkler systems.	Noted
2	Application of automatic fire sprinkler standards	Subject to this Specification a sprinkler system must comply with AS2118.1-2017, or Specification E1.5a.	CRA
3	Separation of sprinklered and non-sprinklered areas	The sprinklered and non-sprinklered parts of the building must be fire separated in accordance with this clause.	CRA
4	Protection of openings	Any openings in construction separating sprinklered and non-sprinklered areas must be protected in accordance with NCC Part C3, except where AS2118.1-2017 provides exemptions.	CRA
5	Fast response sprinklers	Fast response sprinklers may be installed only if they are suitable for the type of application proposed and it is demonstrated that the sprinkler system is designed to accommodate their use.	Noted
6	Sprinkler valve enclosures	The sprinkler pump room does not contain direct access to a fire isolated passageway that connects directly to a road or open space. The configuration requires travel via 2x separate fire isolated passageways This can be supportable via performance solution with a fire engineer.	**DNC PS Refer to section 5**
7	Water supply	The Grade of water supply to the sprinkler system must be in accordance with this clause.	CRA
8	Building occupant warning system	The sprinkler system must be connected to activate a building occupant warning system complying with Clause 7 of Specification E2.2a.	CRA
9	Connection to other systems	Where a smoke hazard management system is installed and is actuated by smoke detectors, the sprinkler system must, wherever practicable, be arranged to also activate the smoke hazard management system.	CRA
10	Anti-tamper devices	Where a sprinkler system is installed in a theatre, public hall or the like, valves provided to control sprinklers over a stage area must be fitted with anti-tamper devices connected to a monitoring panel at the location normally used by the stage manager.	CRA
11	Sprinkler systems in carparks	A sprinkler system protecting a carpark complying with Table 3.9 of NCC Specification C1.1 in a multi-classified building must comply with this clause.	N/A
12	Residential care buildings	In addition to the provisions of AS 2118.4-2012, a sprinkler system in a Class 3 residential aged care building is to be provided with a monitored stop valve in accordance with AS 2118.1-1999 and be permanently connected by an approved monitoring system to a fire station or fire station dispatch centre.	N/A
13	Sprinkler systems in lift installations	Where sprinklers are installed in a space housing lift electrical and control equipment, including machine rooms, secondary floors and sheave rooms, theses spaces must – (i) have heads protected from accidental damage by way of a guard that will not impair the performance of the head; and be capable of being isolated and drained, either separately or collectively, without isolating any other sprinklers within the building.	CRA
Specification E1.5a – Class 2 and 3 buildings not more than 25m in effective height			
1	Scope and application	Information only.	Noted

Clause		Comments	Assessment
2	System requirements	The building has an effective height of more than 25m, therefore this Clause is not applicable.	N/A
3	Permitted concessions	The building has an effective height of more than 25m, therefore this Clause is not applicable.	N/A
Specification E1.8 – Fire control centres			
1	Scope	This Specification describes the construction and content of fire control centres and rooms.	N/A
2	Purpose and content	A fire control centre must comply with this clause.	N/A
3	Location of fire control centre	A fire control centre must be located so that egress from any part of its floor to a road or open space does not involve changes in level which in aggregate exceed 300mm.	CRA
4	Equipment not permitted within a fire control centre	An internal combustion engine, pumps, sprinkler control valves, pipes and pipe fittings must not be located in a fire control centre but may be located in rooms access through the fire control centre.	CRA
5	Ambient sound level for a fire control centre	Ambient sound levels within the fire control centre when all fire safety equipment is operating must not exceed 65dB(A), with the sound measured in accordance with this clause.	CRA
6	Construction of a fire control room	A fire control centre in a building of more than 50m effective height must be in a separate room in accordance with this clause. Fire control centres in buildings with an effective height of less than 50m are not required to be in a specialised room, but in an area complying with clauses 2, 3, 4 and 5 of NCC Specification E1.8.	CRA
7	Protection of openings in a fire control room	Openings in fire control rooms must be protected in accordance with this clause.	CRA
8	Doors to a fire control room	The fire control room must be accessible via two paths of travel, one from the front of the building and one direct from a public place or fire-isolated passageway. Doors are to be in accordance with this clause.	**DNC PS refer to section 5**
9	Size and contents of a fire control room	A fire control room must be adequately sized to contain all equipment set out in this clause and have a floor area of not less than that set out in this clause.	CRA
10	Ventilation and power supply for a fire control room	A fire control room must be ventilated in accordance with this clause.	CRA
11	Sign for a fire control room	The external face of the door to the fire control rom must have a sign stating FIRE CONTROL ROOM in letters of not less than 50mm high and in a colour that contrasts with that of the background.	CRA
12	Lighting for a fire control room	Emergency lighting in accordance with NCC Part E4 must be provided to the fire control room in accordance with this clause.	CRA
Part E2 – Smoke hazard management			
E2.0	Deemed-to-Satisfy Provisions	Information only.	Noted
E2.1	Application of Part	Information only.	Noted
E2.2	General requirements	The Class 2 parts of the building must be provided with automatic smoke detection and alarm system complying with Specification E2.2a. There are Class 6, 7b and 9b parts located in more than 1 fire compartment of the building and therefore a zone pressurisation system in accordance with AS 1668.1 is required. A Performance Solution may be prepared to omit a sone pressurisation system.	**PS Refer to section 5**
E2.3	Provision for special hazards	The building must be provided with an automatic smoke detection and alarm system, and smoke detectors complying with	CRA

Clause		Comments	Assessment
		Specification E2.2a and a Building Occupant Warning System (BOWS). Each Class 2 residential unit is to incorporate an AS3786 smoke alarm system which is connected to the consumer mains source and interconnected throughout the SOU. Accredited fire services engineer will investigate each individual unit to determine the most appropriate location to install the smoke alarm to the requirements of AS3786-2014 to prevent false alarms occurring. Except where the kitchen or other area is in a building protected with a sprinkler system complying with Specification E1.5, the alarms need not be installed in the kitchen or other areas likely to result in spurious signals. The common areas of the building are to incorporate a smoke detection and alarm system installed in accordance with (BOWS) being a sound pressure within each SOU door is to achieve no less than 85dB(A). Where the smoke alarms are to be in an area the smoke alarm may be able to replace with a heat detector to reduce spurious signals. Please note that the smoke detectors which are required outside the lift and the fire-isolated stairs cannot be replaced with heat detectors under the requirements of AS1670.1-2015. The layout and selection of the smoke alarm system is to be designed by an appropriately accredited fire services engineer. Upon activation of the BOWS, the fans are to run at full speed AS1670.1-2018 and activate a Building Occupant Warning System The childcare part of the building will be required to be provided with a shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1.	
Specification E2.2a – Smoke detection and alarm systems			
1	Scope	This Specification describes the installation and operation of automatic smoke detection and alarm systems.	Noted
2	Type of system	The building must be provided with a smoke alarm system complying with clause 3 of Specification E2.2a, a smoke detection system complying with clause 4 of Specification E2.2a, or a combination of a smoke alarm system and a smoke detection system complying with clause 5 of Specification E2.2a.	CRA
3	Smoke alarm system	A smoke alarm system must comply with this clause.	CRA
4	Smoke detection system	A smoke detection system must comply with this clause.	CRA
5	Combined smoke alarm and smoke detection system	The building has been proposed not have a combined smoke alarm and smoke detection system, therefore this Clause is not applicable.	CRA
6	Smoke detection for smoke control system	The building has an effective heigh less than 50m, therefore this Clause is not applicable.	N/A
7	Building occupant warning system	The smoke alarm or detection system must activate a building occupant warning system in accordance with this clause.	CRA
8	System monitoring	The system monitoring must be provided in accordance with this clause.	CRA
Specification E2.2d – Residential fire safety systems			
1	Application	Clause 3 describes requirements for connecting residential sprinkler systems in Class 2 and 3 buildings or a residential care building, to a fire station or other approved monitoring service.	Noted

Clause		Comments	Assessment
3	Connection of residential sprinkler systems to a fire station or other approved monitoring service	The building has not been provided with a connection of residential sprinkler systems to a fire station or other approved monitoring service, therefore this Clause is not applicable.	N/A
Part E3 – Lift installations			
E3.0	Deemed-to-Satisfy Provisions	Information only.	Noted
E3.1	Lift installations	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1.	CRA
E3.2	Stretcher facility in lifts	The lift serves a storey with an effective height above 12m, therefore, must be provided with a stretcher facility. A stretcher facility incorporates provision of a clear space not less than 600mm wide x 2,000mm long to a height of no less than 1,400mm above the floor.	CRA
E3.3	Warning against use of lifts in fire	Warning signage stating – DO NOT USE LIFTS IF THERE IS A FIRE must be provided in accordance with this clause.	CRA
E3.4	Emergency lifts	The building will be required to be provided with a least one emergency lift.	CRA
E3.5	Landings	An assessment of this clause does not form part of the scope of this Report. Rather, it is to be covered by an Access Report prepared by a third party.	N/A
E3.6	Passenger lifts	An assessment of this clause does not form part of the scope of this Report. Rather, it is to be covered by an Access Report prepared by a third party.	N/A
E3.7	Fire service controls	The lift serves a storey above an effective height of 12m, therefore, must be provided with a fire service recall control switch and a lift car fire service drive control switch in accordance with this clause.	CRA
E3.9	Fire service recall control switch	A fire service recall control switch is to be provided in accordance with this clause.	CRA
E3.10	Lift car fire service drive control switch	A lift car fire service drive control switch is to be provided in accordance with this clause.	CRA
Specification E3.1 – Lift Installations			
1	Scope	This Specification contains requirements for electric passenger lift installations and electrohydraulic passenger lift installations	Noted
2	Lift cars exposed to solar radiation	A lift car exposed to solar radiation directly, or indirectly through re-radiation, must comply with this clause.	CRA
3	Lift car emergency lighting	A lift car must have emergency lighting complying with this clause.	CRA
4	Cooling of lift shaft	While in service, a lift shaft must have cooling in accordance with this clause.	CRA
5	Lift foyer access	Where there is a security foyer in a building, access may be via locked security doors provided measures are in place in accordance with this clause.	CRA
6	Emergency access doors in a single enclosed lift shaft	Emergency access doors in a single enclosed lift shaft must be in accordance with this clause.	CRA
Part E4 – Visibility in an emergency, exit signs and warning systems			
E4.0	Deemed-to-Satisfy Provisions	Information only.	Noted
E4.2	Emergency lighting requirements	The building must be provided with emergency lighting in accordance with this clause.	CRA
E4.3	Measurement of distance	Information only.	Noted

Clause		Comments	Assessment
E4.4	Design and operation of emergency lighting	The emergency lighting system must comply with AS 2293.1-2018.	CRA
E4.5	Exit signs	The building must be provided with exit signage in accordance with this clause.	CRA
E4.6	Direction signs	Where required, the building must be provided with exit direction signage in accordance with this clause.	CRA
E4.7	Class 2 and 3 buildings and Class 4 parts: Exemptions	The requirements of clause E4.5 do not apply to— (a) a Class 2 building in which every door referred to is clearly and legibly labelled on the side remote from the exit or balcony— (i) with the word "EXIT" in capital letters 25 mm high in a colour contrasting with that of the background; or by some other suitable method; and an entrance door of a sole-occupancy unit in a Class 2 building	CRA
E4.8	Design and operation of exit signs	The exit lighting system must comply with AS 2293.1-2018.	CRA
E4.9	Emergency warning and intercom systems	The building exceeds an effective height of more than 25m, therefore Is required to contain an emergency warning and intercom system in accordance with AS 1670.4	CRA
Specification E4.8 – Photoluminescent exit signs			
1	Scope	This Specification contains the requirements for photoluminescent exit signs	Noted
2	Application	A photoluminescent exit sign must comply with Section 6 and Appendix D of AS 2293.1-2018, except as varied by this Specification.	Noted
3	Illumination	Photoluminescent exit signage must comply with this clause.	CRA
4	Pictorial elements	Photoluminescent exit signage must comply with this clause.	CRA
5	Viewing distance	Photoluminescent exit signage must comply with this clause.	CRA
6	Smoke control systems	Photoluminescent exit signage must comply with this clause.	CRA

SECTION F - HEALTH AND AMENITY

Clause		Comments	Assessment
Part F1 – Damp and weatherproofing			
F1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F1.1	Stormwater drainage	Stormwater drainage for the building must comply with AS/NZS 3500.3-2015.	CRA
F1.4	External above ground membranes	Waterproofing membranes for external above ground use, such as balconies and roofs, must comply with AS 4654.1-2012 and AS 4654.2-2012.	CRA
F1.5	Roof coverings	The roof covering must be in accordance with this clause.	CRA
F1.6	Sarking	Sarking-type materials used for weatherproofing of roofs and walls must comply with AS 4200.1-1994 and AS 4200.2-1994.	CRA
F1.7	Waterproofing of wet areas in buildings	Waterproofing of the wet areas in the building must comply with this clause and AS 3740-2010. Further information will be required in relation to the window sill height in Sou ensuite bathroom tub to ensure the waterproofing requirements comply.	FI
F1.9	Damp-proofing	Damp-proofing is to be provided in accordance with this clause. Where a damp-proof course is provided, the material must comply with AS/NZS 2904-1995 or, for impervious termite shields, AS 3660.1-2014.	CRA
F1.10	Damp-proofing of floors on the ground	Damp-proofing of floors on the ground must be in accordance with this clause. Where required the vapour barrier is to comply with AS 2870-2011.	CRA

Clause		Comments	Assessment
F1.11	Provision of floor wastes	The bathrooms and laundries located above a sole-occupancy unit or public space m have a floor waste, and the floor must be graded to the floor waste to permit the drainage of water.	CRA
F1.12	Subfloor ventilation	Where provided, sub-floor ventilation is to be in accordance with this clause.	CRA
F1.13	Glazed assemblies	Glazed assemblies in external walls or roofs must comply with AS 2047-2014 or AS 1288-2006 as required by this clause and NCC clause B1.4.	CRA
Part F2 – Sanitary and other facilities			
F2.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F2.1	Facilities in residential buildings	The provision of facilities to all other units complies.	CRA
F2.2	Calculation of number of occupants and facilities	The number of persons served by the new sanitary facilities must be calculated in accordance with clause D1.13.	Noted
F2.3	Facilities in Class 3 to 9 buildings	The toilet bank on the level 1 childcare centre do not comply with this provision based on the calculation of number of occupants and facilities under Clause D1.13 of this report.	CRA
F2.4	Accessible sanitary facilities	An assessment of this clause does not form part of the scope of this Report. Rather, it is covered by an Access Report prepared by a third party.	N/A
F2.5	Construction of sanitary compartments	The sanitary compartments must be provided with clearance in accordance with NCC Figure F2.5.	CRA
F2.6	Interpretation: Urinals and washbasins	Information only	Note
F2.7	Microbial (legionella) control	Information only	Note
Part F3 – Room heights			
F3.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F3.1	Height of rooms and other spaces	The height of all spaces and rooms must comply with the requirements of this clause.	CRA
Part F4 – Light and ventilation			
F4.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F4.1	Provision of natural light	Natural light must be provided to bedrooms and dormitories within the Class 2 parts.	CRA
F4.2	Methods and extent of natural light	The method and extent of natural light provided to bedrooms and dormitories within the Class 2 parts must be in accordance with the requirements of this clause.	CRA
F4.3	Natural light borrowed from adjoining room	Natural light can be borrowed (where required) in accordance with the requirements of this clause.	CRA
F4.4	Artificial lighting	Artificial lighting must be provided throughout the building in accordance with the requirements of AS 1680.0-2009.	CRA
F4.5	Ventilation of rooms	All occupiable spaces throughout the building must be provided with natural or mechanical ventilation.	CRA
F4.6	Natural ventilation	If natural ventilation is utilised, a ventilating area of no less than 5% of the floor area must be provided.	CRA
F4.7	Ventilation borrowed from adjoining room	Ventilation can be borrowed from an adjacent room in accordance with the requirements of this clause.	CRA
F4.8	Restriction on location of	The location of sanitary compartments complies with this clause.	Complies

Clause		Comments	Assessment
	sanitary compartments		
F4.9	Airlocks	The provisions of this Clause do not apply to the sanitary facilities within the building.	CRA
F4.11	Carparks	The carpark must have a system of mechanical ventilation complying with AS 1668.2-2012.	CRA
F4.12	Kitchen local exhaust ventilation	The building has not been proposed to be provided with a commercial kitchen and therefore this Clause does not apply.	N/A
Part F5 – Sound transmission and insulation			
F5.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F5.1	Application of Part	This Part applies to Class 2, 3 and 9c buildings.	Noted
F5.2	Determination of airborne sound insulation ratings	A form of construction required to have an airborne sound insulation rating must comply with this clause.	CRA
F5.3	Determination of impact sound insulation ratings	Building elements required to have an impact sound insulation rating must comply with this clause.	CRA
F5.4	Sound insulation rating of floors	A floor in a 3 building must have a $R_w + C_{tr}$ (airborne) of not less than 50 and a $L_{n,w} + C_l$ (impact) of not more than 62 if it separates sole-occupancy units (SOUs) or a SOU from plant, a lift shaft, a stairway, etc., or parts of a different classification in accordance with this clause.	CRA
F5.5	Sound insulation rating of walls	Walls must be sound insulated in accordance with this clause.	CRA
F5.6	Sound insulation rating of internal services	Ducts and waste or water supply pipes that pass through more than one SOU must be separated by construction with an $R_w + C_{tr}$ (airborne) in accordance with this clause.	CRA
F5.7	Sound isolation of pumps	A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.	CRA
Specification F5.2 – Sound insulation for building elements			
1	Scope	This Specification contains details of common forms of construction and their designated DTS weighted sound reduction index.	Noted
2	Construction Deemed-to-Satisfy	Information only.	Noted
Specification F5.5 – Impact sound – Test of equivalence			
1	Scope	This Specification describes a method of test to determine the comparative resistance of walls to the transmission of impact sound	Noted
2	Construction to be tested	Information only.	Noted
3	Method	Information only.	Noted
Part F6 – Condensation management			
F6.0	Deemed-to-Satisfy Provisions	Information only.	Noted
F6.1	Application of part	Information only.	Noted
F6.2	Pliable building membrane	Pliable building membrane must comply with this clause.	CRA
F6.3	Flow rate and discharge of exhaust systems	Flow rate and discharge of exhaust systems must comply with this clause.	CRA
F6.4	Ventilation of roof spaces	Ventilation of roof spaces must comply with this clause.	CRA

SECTION G - ANCILLARY PROVISIONS

Clause		Comments	Assessment
Part G1 – Minor structures and components			

Clause		Comments	Assessment
G1.0	Deemed-to-Satisfy Provisions	Information only.	Noted
G1.1	Swimming pools	The swimming pool located on the upper ground floor is required to comply with the following A swimming pool with a depth of water more than 300 mm and which is associated with a Class 2 or 3 building or Class 4 part of a building, must have suitable barriers to restrict access by young children to the immediate pool surrounds in accordance with AS 1926.1 and AS 1926.2.	CRA
G1.2	Refrigerated chambers, strong-rooms and vaults	Refrigerated chambers, strong-rooms and vaults that are of a sufficient size for a person to enter must have facilities in accordance with this clause.	CRA
G1.3	Outdoor play spaces	The outdoor play space must be enclosed on all sides with a barrier which complies with AS 1926.1:2012 to restrict the children from exiting the premises. The above requirements do not apply to a wall, including doors and windows, which form part of the Class 9b early childhood centre.	CRA
NSW G1.101	Provision for cleaning windows	A safe manner for cleaning of windows located 3 or more storeys above ground level must be provided, and compliance is achieved where: • the windows can be cleaned wholly from within the building; or via a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.	CRA
Part G2 – Boilers, pressure vessels, heating appliances, fireplaces, chimneys and flues			
G2.0	Deemed-to-Satisfy Provisions	Information only.	Noted
G2.2	Installation of appliances	The installation of a stove, heater or similar appliance in a building must comply with AS/NZS 2918-2001 for domestic solid fuel burning appliances or AS 1200-2000 for pressure equipment. The installation of a boilers and pressure vessels is to comply with Specification G2.2.	CRA
G2.3	Open fireplaces	The building does not include open fireplaces.	N/A
G2.4	Incinerator rooms	The building does not include an incinerator room.	N/A
Specification G2.2 – Installation of boilers and pressure vessels			
1	Scope	This Specification sets out the requirements for the installation of boilers and pressure vessels in buildings.	Noted
2	Boilers and pressure vessels	This Clause does not apply to this building.	N/A
Part G3 – Atrium construction			
G3.1	Application of Part	The void between levels ground to level 5 connects 5 storeys and therefore this atrium has been assessed against the requirements of Part G3 of the BCA.	Noted
G3.2	Dimension of atrium well	This Clause does not apply to this building.	N/A
G3.3	Separation of atrium by bounding walls	This Clause does not apply to this building.	N/A
G3.4	Construction of bounding walls	Bounding walls are to have an FRL not less than 60/60/60 with glazed openings protected with all wetting sprinklers.	FI

Clause		Comments	Assessment
G3.5	Construction at balconies	This Clause does not apply to this building.	N/A
G3.6	Separation at roof	This Clause does not apply to this building.	N/A
G3.7	Means of egress	This Clause does not apply to this building.	N/A
G3.8	Fire and smoke control systems	This Clause does not apply to this building.	N/A
Specification G3.8 – Fire and smoke control systems in buildings containing atriums			
1	Scope	This Specification sets out the requirements for the design and operation of systems of fire and smoke control in buildings containing an atrium.	Noted
2	Automatic fire sprinkler system	This Clause does not apply to this building.	N/A
3	Smoke control system	This Clause does not apply to this building.	N/A
4	Fire detection and alarm system	This Clause does not apply to this building.	N/A
5	Emergency warning and intercom systems	This Clause does not apply to this building.	N/A
6	Standby power system	This Clause does not apply to this building.	N/A
7	System for excluding smoke from fire-isolated exits	This Clause does not apply to this building.	N/A
Part G4 – Construction in alpine areas			
G4.0	Deemed-to-Satisfy Provisions	Information only.	Noted
G4.1	Application of Part	This Part applies to any building constructed in an alpine area in addition to other DtS clauses of the NCC. Where a clause in this Part and another clause conflict, the provisions of this Part take precedence.	CRA
G4.3	External doors	This Clause does not apply to this building.	N/A
G4.4	Emergency lighting	This Clause does not apply to this building.	N/A
G4.5	External trafficable structures	This Clause does not apply to this building.	N/A
G4.6	Clear space around buildings	This Clause does not apply to this building.	N/A
G4.8	Fire-fighting services and equipment	This Clause does not apply to this building.	N/A
G4.9	Fire orders	This Clause does not apply to this building.	N/A
Part G5 – Construction in bushfire prone areas			
G5.0	Deemed-to-Satisfy Provisions	Information only.	Noted
G5.1	Application of Part	This Part applies to any Class 2 or 3 building and any Class 10a building associated with a Class 2 or 3 building constructed in designated bushfire prone area.	CRA
NSW G5.2	Protection	In a designated bushfire prone area, a Class 2 building, a Class 3 building, a Class 4 part of a building or a Class 9 building that is a special fire protection purpose or a Class 10a building or deck associated with such a building or part must comply with this clause.	CRA

Clause		Comments	Assessment
Part G6 – Occupiable outdoor areas			
G6.1	Application of Part	This Part applies to "occupiable outdoor areas". The communal open space provided on level 1 childcare centre and the BBQ outdoor area on level 16 is an occupiable outdoor area.	Noted
G6.2	Fire hazard properties	The communal open space located on level 1 childcare centre and the BBQ outdoor area on level 16 must comply with the fire hazard requirements of this clause.	CRA
G6.3	Fire separation	For information.	Noted
G6.4	Provision for escape	The requirements of Part D1 are applicable to the on level 1 childcare centre and the BBQ outdoor area on level 16	Noted
G6.5	Construction of exits	The requirements of Part D2 apply to the communal open space provided on the in accordance with this clause.	CRA
G6.6	Firefighting equipment	The requirements of Part E3 apply to the communal open space provided on level 1 and level 16 by this clause.	CRA
G6.7	Lift installations	The requirements of Part E3 apply to the communal open space provided on level 1 and level 16 by this clause.	CRA
G6.8	Visibility in an emergency, exit signs and warning systems	The requirements of Part E4 are applicable to the communal open Space provided on the ground floor in accordance with this clause.	CRA
G6.9	Light and ventilation	The requirements of clause F4.4, F4.8, and F4.9 are applicable to the communal open space provided on level 1 and level 16 in accordance with this clause.	CRA
G6.10	Fire orders	The requirements of clause G4.9 are applicable to the communal open space provided on level 1 and level 16 in accordance with this clause.	Noted

SECTION J - ENERGY EFFICIENCY

A separate Section J Report must be obtained to confirm compliance with this Section. Please contact Credwell Energy on 02 9281 8555 or at info@credwell.com.au for further information regarding obtaining a Section J Report.