

BUILDING CODE OF AUSTRALIA CONSTRUCTION REVIEW REPORT

PROPOSED RESIDENTIAL UNIT DEVELOPMENT

5-7, 7A & 9 CROYDON STREET, LAKEMBA

DATE ► 30/07/2024

REPORT NO. ► 12728_R02 - FINAL

PREPARED FOR ► Eloura

PREPARED BY ► AE&D



AEDGROUP

Innovation & expertise in building regulations

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REVISION STATUS				
REPORT NO/REV	DATE	STATUS	WRITTEN	CHECKED
12728_R00	02/11/2023	DRAFT FOR COMMENT	EDM	BM
12728_R01	12/07/2024	UPDATE FOR S4.55 CHANGES	EDM	BM
12728_R02	30/07/2024	REPORT UPDATE FOR S4.55 SUBMISSION	EDM	BM

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1.0 EXECUTIVE SUMMARY AND RECOMMENDATIONS

This report provides a Building Code of Australia (BCA) 2022 assessment of a proposed residential unit building, to be located at 5-7, 7A & 9 Croydon Street, Lakemba, for the purposes of Construction Certificate (CC).

The primary purpose of this report is to identify the non-compliance matters contained in the proposed design against the current Deemed-to-Satisfy (DTS) Provisions of the BCA.

1.1 Recommendations – Construction Certificate Stage

The following is a list of Deemed-to-Satisfy Provisions that should be addressed either by design amendments, additional information **OR** by way of a Performance Solution:

BCA Clause	Deemed-to-Satisfy Provision to be addressed
GENERAL COMMENTS	<p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans for the development detailing compliance with Section C of the BCA and Specification 5, as applicable. Architect to develop a wall, door and window schedules detailing compliance with the relevant parts of the BCA. Compliance needs to be demonstrated with— <ul style="list-style-type: none"> Section C and D, fire-rated wall, fire doors, lift shafts, etc – ensure FRL's are detailed as compliant. Part D4 – doors are to be provided with minimum widths for accessibility purposes. Recommend this is reviewed by the access consultant. Part F6 – window dimensions to be specified to demonstrate that natural light and ventilation is provided as required. Etc. Structural engineer to develop plans in accordance with Specification 5, ensuring FRL's are achieved for slabs, columns, walls, etc, as required.
C2D2 Type of construction required [2019: C1.1]	<p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans detailing compliance with Specification 5, as applicable to Type A Construction. Structural Engineer to develop plans detailing compliance with Specification 5, as applicable to Type A Construction.
C2D10 Non-combustible building elements [2019: C1.9]	<p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop materials schedule for the building elements required to be non-combustible under part (1) of this clause. The materials schedule must identify the specific products to be used and demonstrate that they are non-combustible having been tested in accordance with AS 1530.1 or are otherwise exempt from being non-combustible under parts (4), (5) and (6) of this clause. AS 1530.1 test reports should be provided to AED and referenced within the materials schedule as applicable.
C2D14 Ancillary elements [2019: C1.14]	<p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop materials schedule for the any ancillary elements required to be non-combustible under this clause. The materials schedule must identify the specific products to be used and demonstrate that they are non-combustible having been tested in accordance with AS 1530.1 or are otherwise exempt from being non-combustible under this clause.

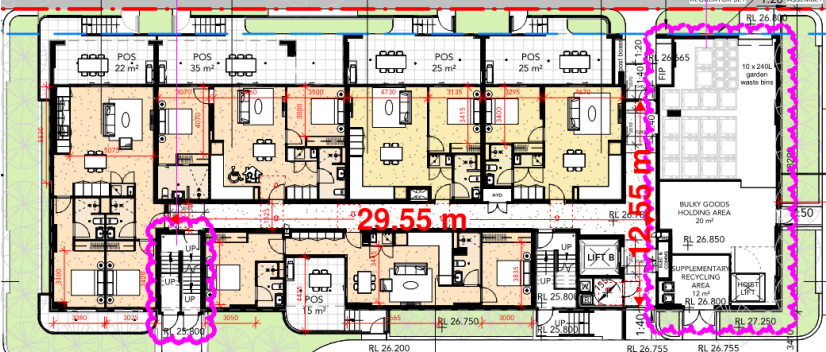
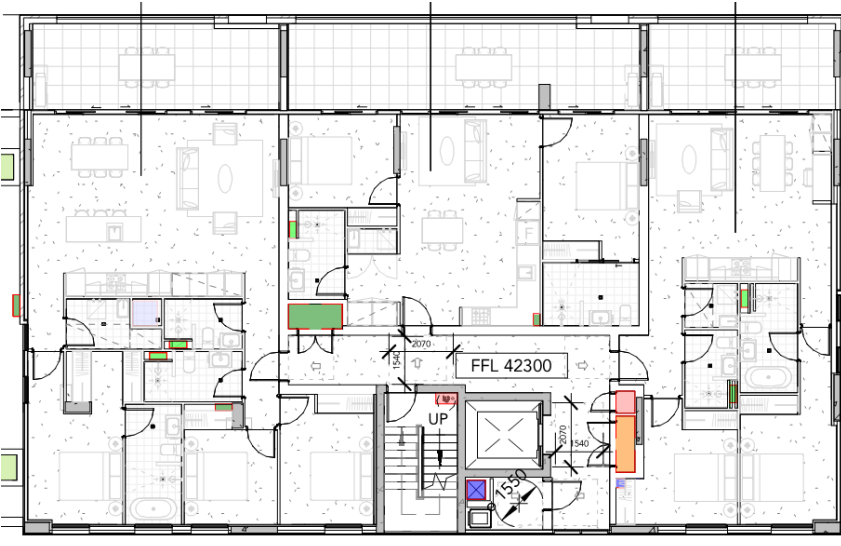
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<ul style="list-style-type: none"> AS 1530.1 test reports should be provided to AED and referenced within the materials schedule as applicable.
C2D15 Fixing of bonded laminated cladding panels [New for 2022]	Compliance commentary <ul style="list-style-type: none"> Suitably qualified engineer to develop plans detailing the supports to the external cladding panels, in accordance with this clause. AED recommend that this is discussed with the structural engineer or façade engineer.
C3D9 Separation of classifications in the same storey [2019: C2.8]	Compliance commentary <ul style="list-style-type: none"> Architect to develop FRL floor plans demonstrating compliance with this clause. Storage areas in Basement 1 & 2 have been measured to be less than 10% and received concession under A6G1, hence the entire storeys can adopt a Class 7a classification. The storage room and managers office on the lower ground floor of Building A, each measure less than 10% of the floor area of the storey and can adopt a Class 2 classification. <p>Where separation is proposed in accordance with part (1)(b) of this clause—</p> <ul style="list-style-type: none"> Class 7b parts must be separated by a fire wall achieving an FRL of not less than 240/240/240. Class 7a parts must be separated by a fire wall achieving an FRL of not less than 120/120/120. Class 2 parts must be separated by a fire wall achieving an FRL of not less than 90/90/90.
C3D10 Separation of classifications in different storeys [2019: C2.9]	Compliance commentary <ul style="list-style-type: none"> Architect to develop FRL floor plans demonstrating compliance with this clause. Structural engineer will need to provide certification that the slabs achieve the required FRL's in accordance with this clause. <p>Where separation is proposed in accordance with part (1)(b) of this clause—</p> <ul style="list-style-type: none"> Class 7b parts must be separated by a floor achieving an FRL of not less than 240/240/240. Class 7a parts must be separated by a floor achieving an FRL of not less than 120/120/120. Class 2 parts must be separated by a floor achieving an FRL of not less than 90/90/90.
C3D14 Electricity supply system [2019: C2.13]	Compliance commentary <ul style="list-style-type: none"> Ensure that protection is provided for the substation in accordance with Ausgrid requirements. Recommend that this is reviewed by the design team.
C4D13 Openings in floors and ceilings for services [2019: C3.12]	Compliance commentary <ul style="list-style-type: none"> Fire Stopping Specifications are to be developed scheduling the method of fire protection for services penetrating fire-rated building elements. AED recommend that a fire stopping specialist is engaged to assist with this. Architect to indicate the location of any proposed shafts within the building and demonstrate compliance with the requirements of this clause.
C4D15 Openings for service installations [2019: C3.15]	Compliance commentary <ul style="list-style-type: none"> Fire Stopping Specifications are to be developed scheduling the method of fire protection for services penetrating fire-rated building elements. AED recommend that a fire stopping specialist is engaged to assist with this.

BCA Clause	Deemed-to-Satisfy Provision to be addressed
<p>S5C16</p> <p>Type A fire-resisting construction — Roof lights</p> <p>[2019: Spec C1.1: 3.6]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> The roof light on level 8 of Building C is located within 3 m of the external wall of the building, as such the external wall is required to be protected in accordance with part (b)(ii) of this clause. Design team have advised that the external wall and openings will be protected in accordance with this clause. Compliance is to be demonstrated in the CC plans.
<p>E1D2</p> <p>Fire hydrants</p> <p>[2019: E1.3]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> The hydrant booster assembly is required to be located not less than 3 m from the discharge outlet of a building exhaust system operating in fire mode, in accordance with Clause 7.3.3(f) of AS 2419.1-2021. Concerns are raised with respects to the exhaust from the pump room on lower ground, recommend this is reviewed by the fire systems designer and architect to ensure compliance is achieved. Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.
<p>E1D4</p> <p>Sprinklers</p> <p>[2019: E1.5]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> The sprinkler booster assembly is required to be located not less than 3 m from the discharge outlet of a building exhaust system operating in fire mode, in accordance with Clause 4.14.4 of AS 2118.1-2017 and Clause 7.3.3(f) of AS 2419.1-2021. Concerns are raised with respects to the exhaust from the pump room on lower ground, recommend this is reviewed by the fire systems designer and architect to ensure compliance is achieved. <p>Note: Clause 14.4.4 of AS 2118.1-2017 requires a sprinkler booster assembly to comply with AS 2419.1.</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.
<p>E2D5</p> <p>Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building</p> <p>[2019: Table E2.2a]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to indicate the location of smoke alarms within SOU's so that compliance can be determined with Specification 20. Recommend that this is discussed with the fire systems designer. Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.
<p>E3D5</p> <p>Emergency lifts</p> <p>[2019: E3.4]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> Emergency lifts are required to be shown on the CC plans to comply with the requirements of this clause. Emergency lifts are required to serve Buildings A, B and C.
<p>F1D5</p> <p>External waterproofing membranes</p> <p>[2019: F1.4]</p>	<p>Compliance commentary</p> <ul style="list-style-type: none"> AED recommend that a waterproofing consultant is engaged to assist in the development of waterproofing plans. Waterproofing details and specifications are required to be developed and incorporated into the architectural plans. Vertical termination heights of external waterproofing membranes to balconies are to be shown as readily capable of compliant. Concrete setout plans indicate that a 70 mm setback is provided to the balconies. Where pedestal tiles are proposed to the balconies, this will create a technical non-compliance against AS 4654.2. This is due to the vertical termination height being measured between the internal FFL and the external FFL (top of the pedestal tiles). Vertical termination heights for the external waterproofing membrane are to be determined in accordance with Appendix A of AS 4654.2, copied below for information.

BCA Clause	Deemed-to-Satisfy Provision to be addressed																												
	<p style="text-align: center;">TABLE A1 VERTICAL UPWARD TERMINATION HEIGHTS</p> <table><tr><th>Wind class Regions A and B (non-cyclonic) AS 4055</th><th>Wind class Regions C and D (cyclonic) AS 4055</th><th>Ultimate limit state wind speed ($V_{b,w}$) AS/NZS 1170.2</th><th>Termination height mm</th></tr><tr><td>N1</td><td>—</td><td>34</td><td>40</td></tr><tr><td>N2</td><td>—</td><td>40</td><td>50</td></tr><tr><td>N3</td><td>C1</td><td>50</td><td>70</td></tr><tr><td>N4</td><td>C2</td><td>61</td><td>100</td></tr><tr><td>N5</td><td>C3</td><td>74</td><td>150</td></tr><tr><td>N6</td><td>C4</td><td>86</td><td>180</td></tr></table>	Wind class Regions A and B (non-cyclonic) AS 4055	Wind class Regions C and D (cyclonic) AS 4055	Ultimate limit state wind speed ($V_{b,w}$) AS/NZS 1170.2	Termination height mm	N1	—	34	40	N2	—	40	50	N3	C1	50	70	N4	C2	61	100	N5	C3	74	150	N6	C4	86	180
Wind class Regions A and B (non-cyclonic) AS 4055	Wind class Regions C and D (cyclonic) AS 4055	Ultimate limit state wind speed ($V_{b,w}$) AS/NZS 1170.2	Termination height mm																										
N1	—	34	40																										
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N3	C1	50	70																										
N4	C2	61	100																										
N5	C3	74	150																										
N6	C4	86	180																										
F2D2 Wet area construction [2019: F1.7(a) and (b)]	<p><u>Compliance commentary</u></p> <ul style="list-style-type: none">AED recommend that a waterproofing consultant is engaged to assist in the development of waterproofing plans. Waterproofing details and specifications are required to be developed and incorporated into the architectural plans.Vertical termination heights for the external waterproofing membrane are to be determined in accordance with Appendix A of AS 4654.2, copied below for information.																												
F3D5 Wall cladding [New for 2022]	<p><u>Compliance commentary</u></p> <ul style="list-style-type: none">Façade engineer to be engaged to demonstrate compliance with this clause, or otherwise demonstrate compliance with the performance requirements for weatherproofing via performance solution.																												

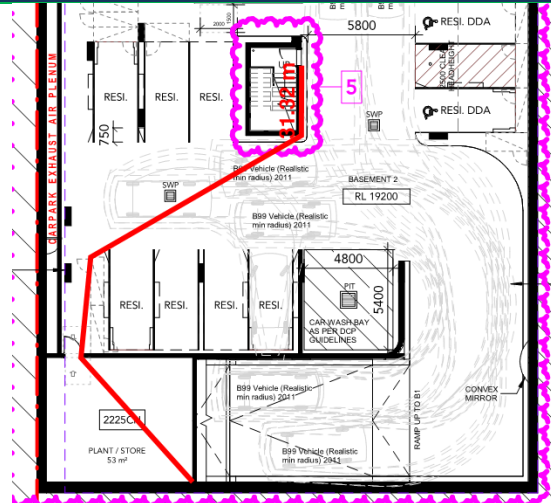
1.2 Performance Solutions Proposed

The following is a list of Performance Solutions that have been proposed to address non-compliances with the Deemed-to-Satisfy Provisions of the BCA:

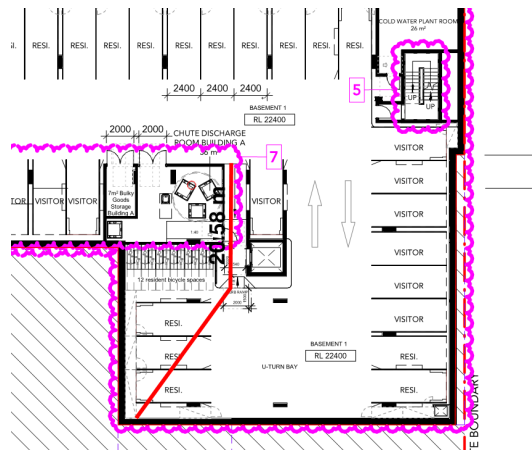
BCA Clause	Deemed-to-Satisfy Provision to be addressed
<p>C3D15</p> <p>Public corridors in Class 2 and 3 buildings</p> <p>[2019: C2.14]</p>	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Building B, Level 1 corridor measured more than 40 m in length (measured 42.1 m) and has not been divided at intervals with smoke-proof walls in accordance with this clause. 
<p>S5C11</p> <p>Type A fire-resisting construction — Fire-resistance of building elements</p> <p>[2019: Spec C1.1: 3.1 and Table 3]</p>	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Shelf-angles contained within the proposed brick façade are required to be fire-rated in accordance with Table S5C11a, as they are loadbearing elements. AED recognise that there are no DtS options apply a fire-rating to shelf-angles, as such it is recommended that this is discussed a suitably qualified fire engineer.
<p>NSW D2D3</p> <p>Number of exits required</p> <p>[2019: D1.2]</p>	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> The occupants on Level 6 & 7 of Building B only have access to one (1) exit, which does not comply with part (2) of this clause. 
<p>D2D5</p> <p>Exit travel distances</p> <p>[2019: D1.4]</p>	<p>Performance Solution Proposed</p> <p>Note: Buildings A, B and C are a united building and are all considered to be over 25 m in effective height.</p> <ul style="list-style-type: none"> The travel distance from the south-western end of basement 2 exceeds 20 m to a point of choice (measured 31.3 m worst case), which does not comply with part (3)(a) of this clause. The fire engineers have captured this in the revised FEBQ.

BCA Clause

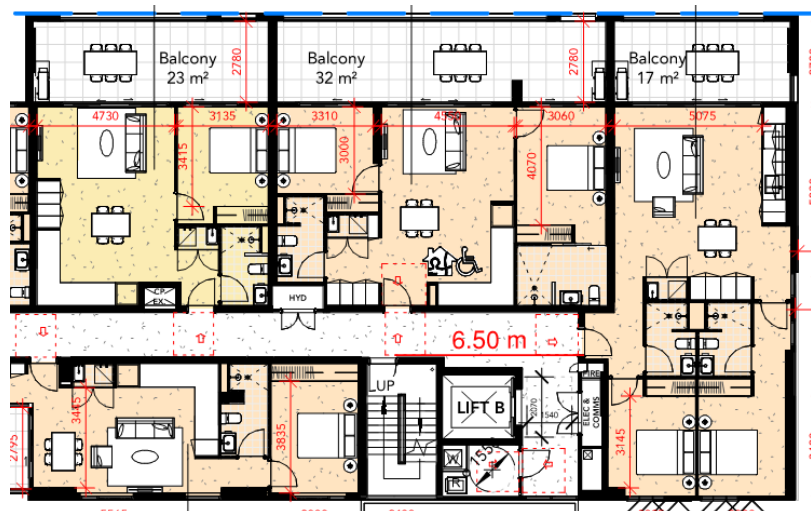
Deemed-to-Satisfy Provision to be addressed



- The travel distance from the south-eastern end of basement 1 exceeds 20 m to a point of choice (measured 20.6 m worst case), which does not comply with part (3)(a) of this clause. The fire engineers have captured this in the revised FEBQ.



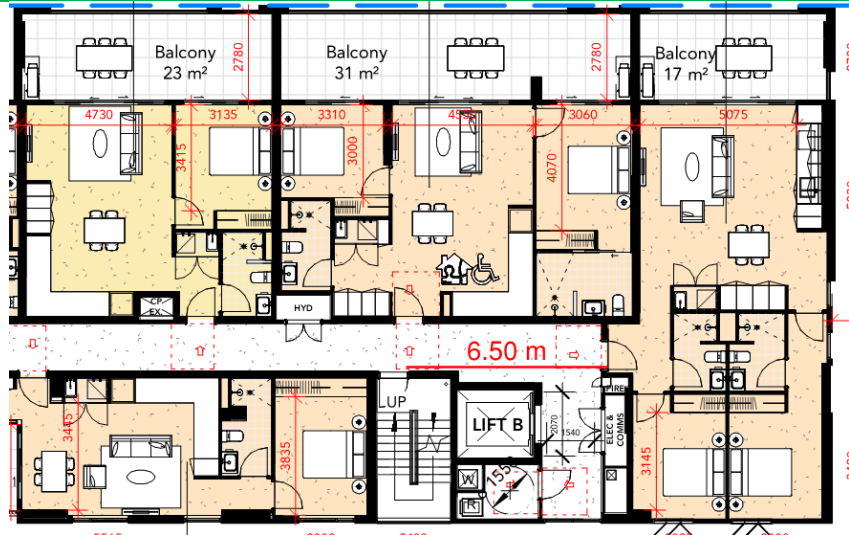
- The travel distance from the SOU doorway located eastern end of Building B, on Levels 2-4, are more than 6 m from a point of choice (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause.



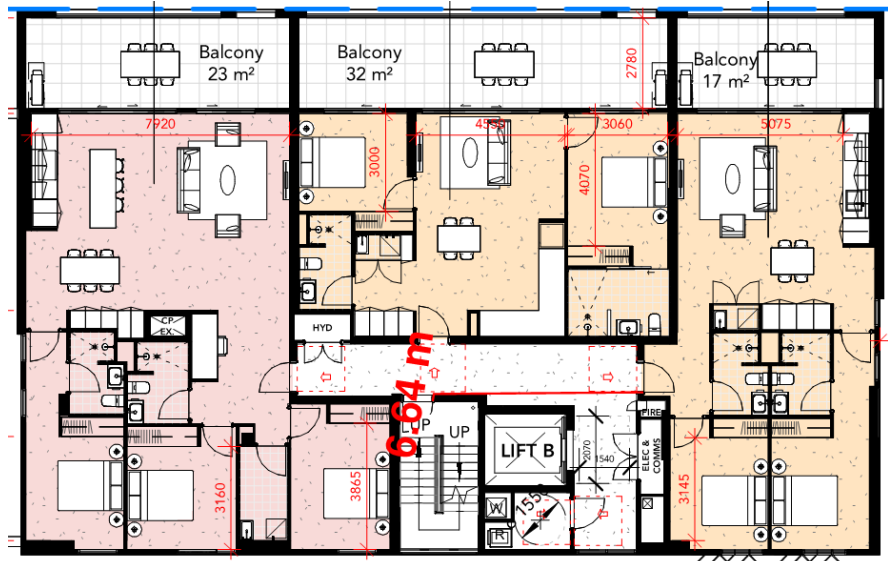
- The travel distance from the SOU doorway located eastern end of Building B, on Level 5 is more than 6 m from a point of choice (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause.

BCA Clause

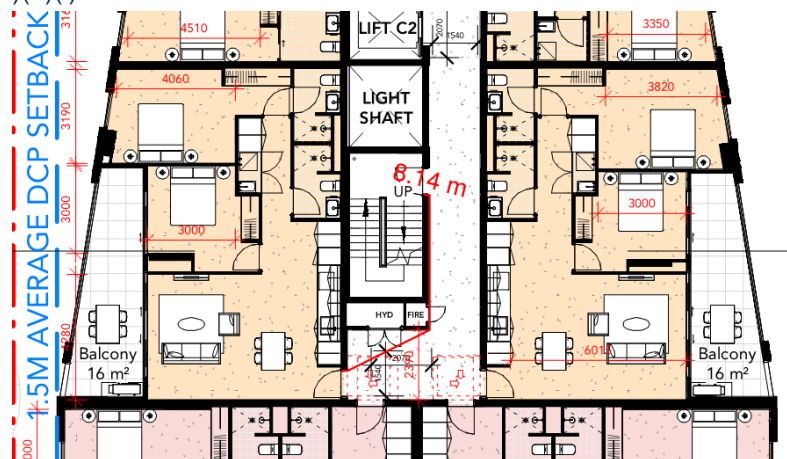
Deemed-to-Satisfy Provision to be addressed

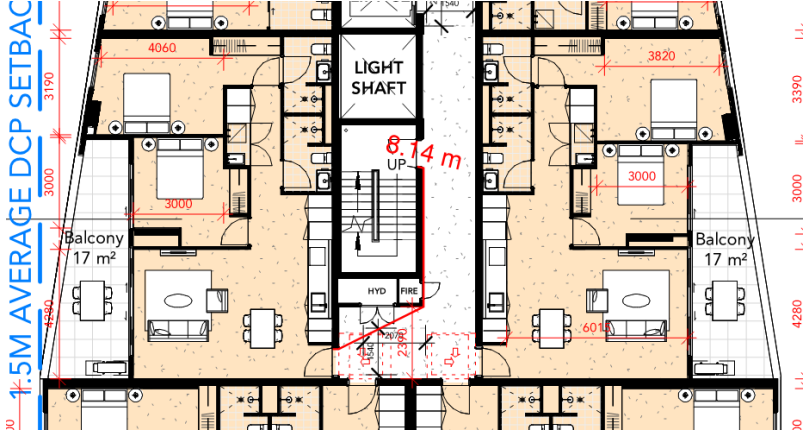
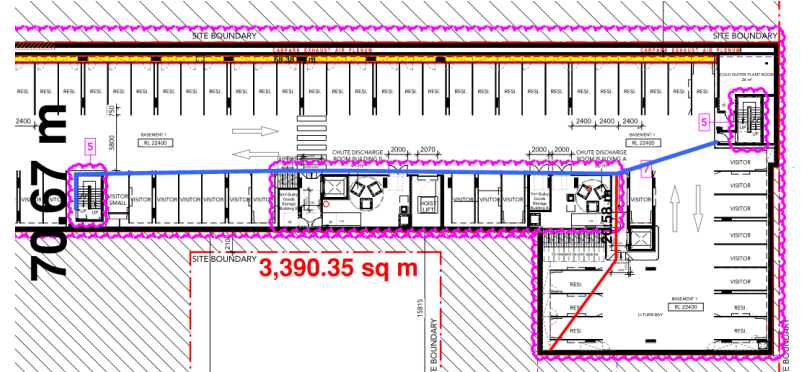
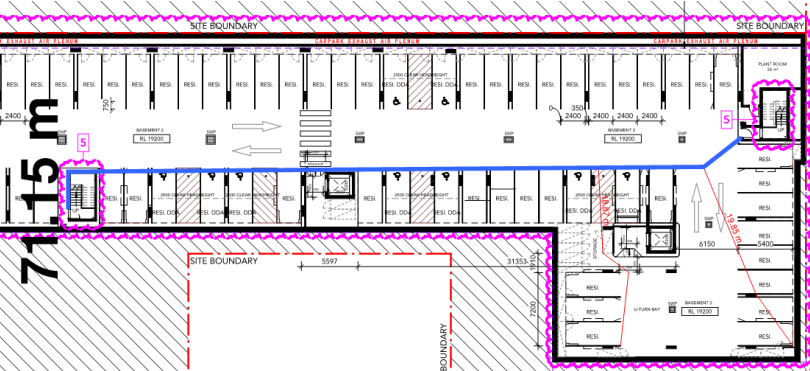


- The travel distance from the SOU doorway located eastern end of Building B, on Levels 6 & 7 is more than 6 m from an exit (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause.



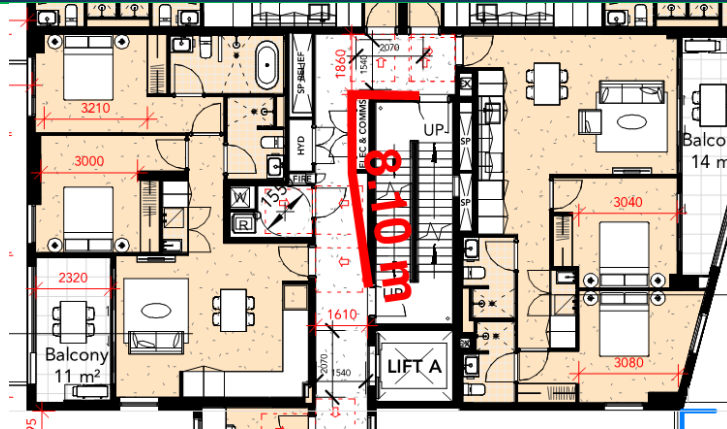
- The travel distance from the SOU doorways (4 units total on each storey) located southern end of Building C, on Levels 2-4, are more than 6 m from a point of choice (measured 8.2 m worst case) which does not comply with part (1)(a)(i) of this clause.



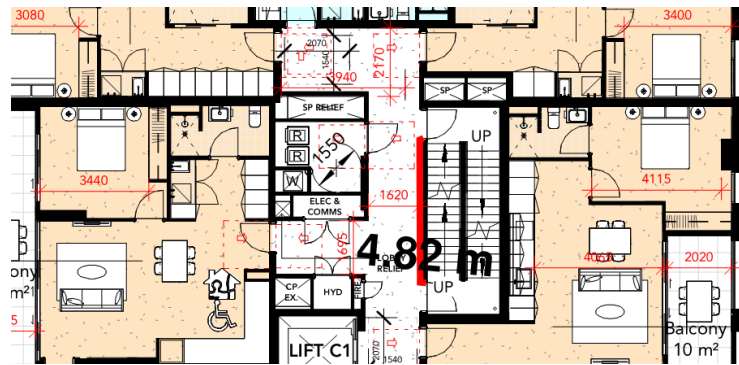
BCA Clause	Deemed-to-Satisfy Provision to be addressed
	<ul style="list-style-type: none"> The travel distance from the SOU doorways (4 units total on each storey) located southern end of Building C, on Levels 5, 6 & 7 are more than 6 m from a point of choice (measured 8.4 m worst case) which does not comply with part (1)(a)(i) of this clause. 
<p>D2D6</p> <p>Distance between alternative exits [2019: D1.5]</p>	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> The travel distance between alternative exits when measured through the point of choice at the south-eastern end of Basement 1 exceeds 60 m (measured 70.7 m), which does not comply with part (c) of this clause. <p>Note 1: This measurement has been taken through the extended travel distance to a point of choice identified under D2D5.</p>  <ul style="list-style-type: none"> The travel distance between alternative exits when measured through the point of choice at the south-eastern end of Basement 2 exceeds 60 m (measured 71.2 m), which does not comply with part (c) of this clause.  <ul style="list-style-type: none"> The distance between alternative exits in Building A, between Levels 1 – 7 is less than 9 m (measured 8.1 m) and does not comply with part (b) of this clause.

BCA Clause

Deemed-to-Satisfy Provision to be addressed



- The distance between alternative exits in Building C, between Levels 2 – 10 is less than 9 m (measured 4.8 m) and does not comply with part (b) of this clause.

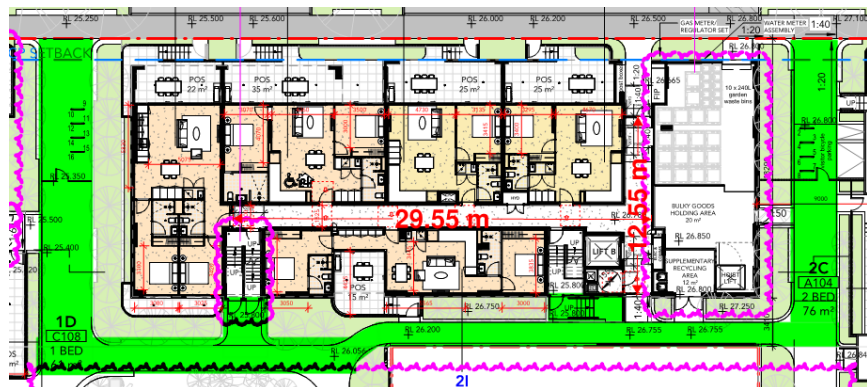


D2D12

Travel via fire-isolated exits
[2019: D1.7]

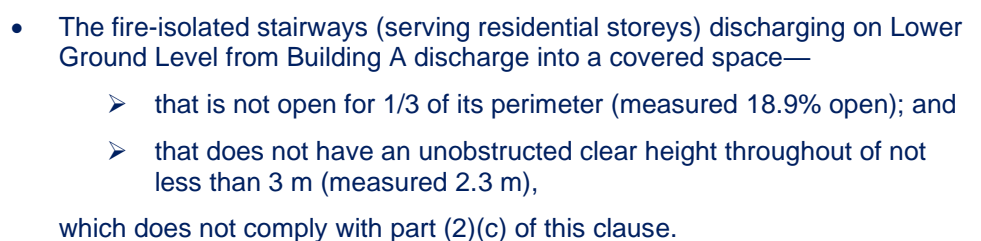
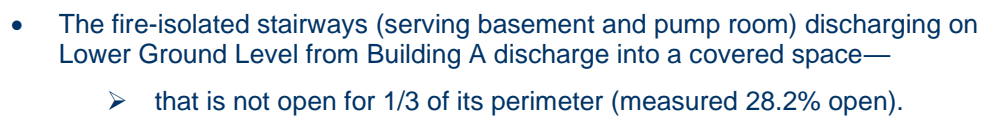
Performance Solution Proposed

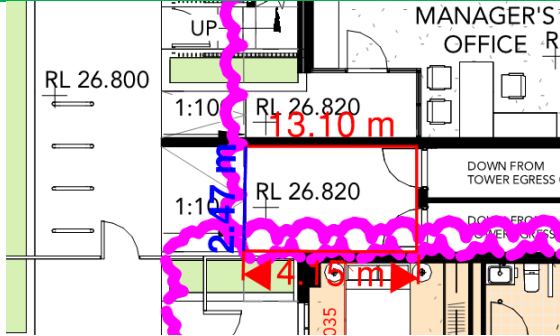

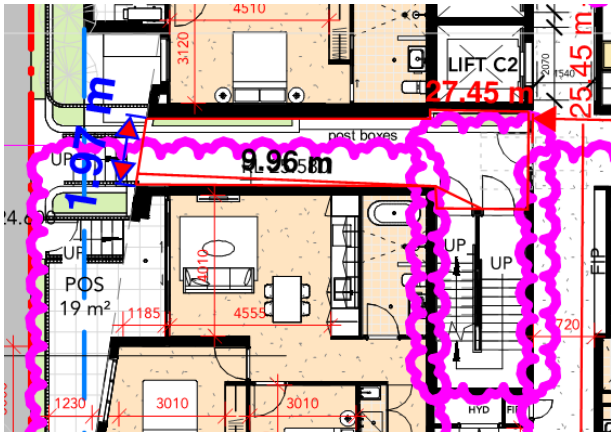
- The path of travel from the discharge point(s) of the fire-isolated stairways serving Building B necessitate passing within 6 m of external walls of the same building and require protection in accordance with part (3) of this clause. Architect to demonstrate compliance with this clause.

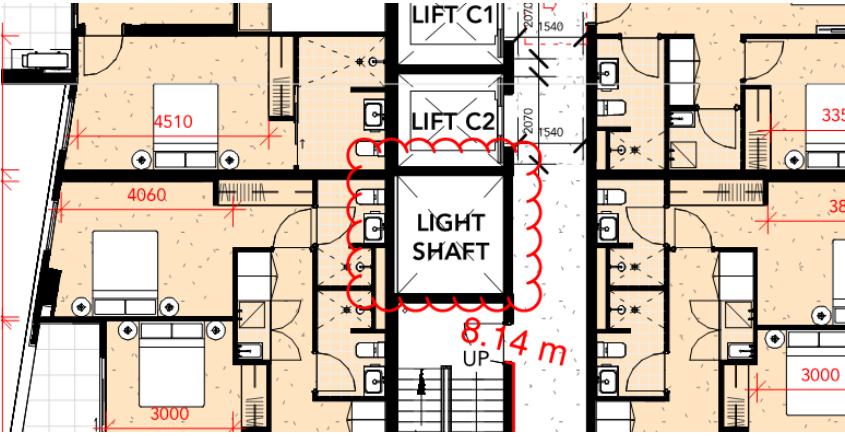


- The path of travel from the discharge point(s) of the fire-isolated stairways serving Building C necessitate passing within 6 m of external walls of the same building and require protection in accordance with part (3) of this clause. Architect to demonstrate compliance with this clause.

Deemed-to-Satisfy Provision to be addressed



BCA Clause	Deemed-to-Satisfy Provision to be addressed
	 <ul style="list-style-type: none"> The fire-isolated stairways discharging on Level 1 from Building C discharge into a covered space— <ul style="list-style-type: none"> That is not open for at least 1/3 of its perimeter (measured 7.2% open); and That does not have an unobstructed clear height throughout of not less than 3 m (measured 2.86 m); and That does not have an unimpeded path to open space of not more than 6 m (measured 10 m), <p>which does not comply with part (2)(c) of this clause.</p>  
E1D2 Fire hydrants [2019: E1.3]	Performance Solution Proposed <ul style="list-style-type: none"> The hydrant booster assembly is required to be within sight of the principal pedestrian entrance of the building in accordance with Clause 7.3.1 of AS 2419.1-2021. On the basis that there are multiple principal entrances this is a technical non-compliance and requires performance solution.
E1D4 Sprinklers	Performance Solution Proposed

BCA Clause	Deemed-to-Satisfy Provision to be addressed
[2019: E1.5]	<ul style="list-style-type: none"> The sprinkler booster assembly is required to be within sight of the principal pedestrian entrance of the building in accordance with Clause 4.14.4 of AS 2118.1-2017 and Clause 7.3.1 of AS 2419.1-2021. On the basis that there are multiple principal entrances this is a technical non-compliance and requires performance solution.
E1D17 Provision for special hazards [2019: E1.10]	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause. The Fire Engineering Report recognises the provision of EV charging stations.
E2D21 Provision for special hazards [2019: E2.3]	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause. The Fire Engineering Report recognises the provision of EV charging stations.
G3D1 Application of Part [2019: G3.1]	<p>Performance Solution Proposed</p> <ul style="list-style-type: none"> A performance solution has been proposed to omit the atrium requirements from the 'lightwell' located in Building C. 

2.0 INTRODUCTION

This report provides a Building Code of Australia (BCA) 2022 assessment of a proposed residential unit building, to be located at 5-7, 7A & 9 Croydon Street, Lakemba, for the purposes of Construction Certificate (CC).

This report provides a BCA assessment table in Section 3.0 that summarises the identified non-compliance matters.

2.1 Basis of Report

The key basis of this report is to address compliance with the Building Code of Australia (BCA) 2022. The scope of services is limited to Sections C – “Fire Resistance”, Section D – “Access & Egress”, Section E – “Services & Equipment”, Section F “Health and Amenity”, Section G “Ancillary Provisions” and Section I “Special use Buildings”

This report is based on a desktop assessment of the proposed plans, with specific reference to the following:

- Architectural plans prepared by Team2 Architects, Project No. 1136 Drawing Numbers:

SHEETS LIST - S4.55		
Sheet Number	Sheet Name	Current Revision
DA-000	COVER SHEET & DRAWING SCHEDULE	H
DA-010	GFA CALCULATION	G
DA-011	SOLAR ACCESS DIAGRAMS	G
DA-012	NATURAL VENTILATION DIAGRAMS	G
DA-013	STORAGE DIAGRAM	G
DA-100	BASEMENT LEVEL 2	E
DA-101	BASEMENT LEVEL 1	E
DA-102	PLAN - LOWER GROUND	G
DA-103	PLAN - LEVEL 1	G
DA-104	PLAN - LEVEL 2-4 (TYPICAL)	H
DA-106	PLAN - LEVEL 5	H
DA-107	PLAN - LEVEL 6	H
DA-108	PLAN - LEVEL 7	H
DA-109	PLAN - LEVEL 8	H
DA-110	PLAN - LEVEL 9-10 (TYPICAL)	G
DA-111	PLAN - ROOF	H
DA-150	ADAPTABLE UNIT TYPES	F
DA-151	SILVER LIVING UNIT TYPES	F
DA-200	NORTH & SOUTH ELEVATIONS	H
DA-201	EAST & WEST ELEVATIONS	H
DA-202	EAST & WEST ELEVATIONS	H
DA-300	SECTIONS	F
DA-301	SECTIONS	F
DA-302	SECTIONS	F

ITEM NO.	S4.55 Proposed Changes
1	Relocation of Storage Cages from Building A Lower Ground to Basement (in conjunction with Change 5)
2	Apartment Mix Change & Parking / Storage Allocation - total 3 additional apartments; a. 6 x 3 bedroom units changed to 6 x 2 bedrooms & 3 x Studios b. 2 x 1 bedroom units changed to 2 x 2 bedrooms units
3	Basement Layout Changes - Storage, Extent of Excavation, Carpark Allocation, Service Plantrooms, Risers & Plenums added and OSD Tank Volume Increase.
4	Basement RL Changes & Ramp Gradients
5	FRNSW & BCA/PCA Requested Fire Escape Changes Including Stair Pressurisation & Lobby Relief, Addition of sprinkler & hydrant tanks & fire pump room including street access & Light Shaft Changes
6	Construction Certificate Drawing Changes with minor changes to apartment layouts & facade for optimisation & Services / Structural Incorporation
7	Waste Room Layout Changes for Compliance
8	Deletion of Roof Terrace
9	Window Changes Requested by Council in Approved S4.55 DA-55/2021/A dated 4 October 2023

- The Building Code of Australia 2022, prepared by the Australian Building Codes Board.
- The Guide to the BCA 2019 Amendment 1, prepared by the Australian Building Codes Board.

2.2 Purpose of the Report

The purpose of this report is to assess the following:

- Assessment under the current Building Code of Australia 2022 and list any departures from the BCA 2022.

2.3 Limitations of the Report

This report does not assess the following:

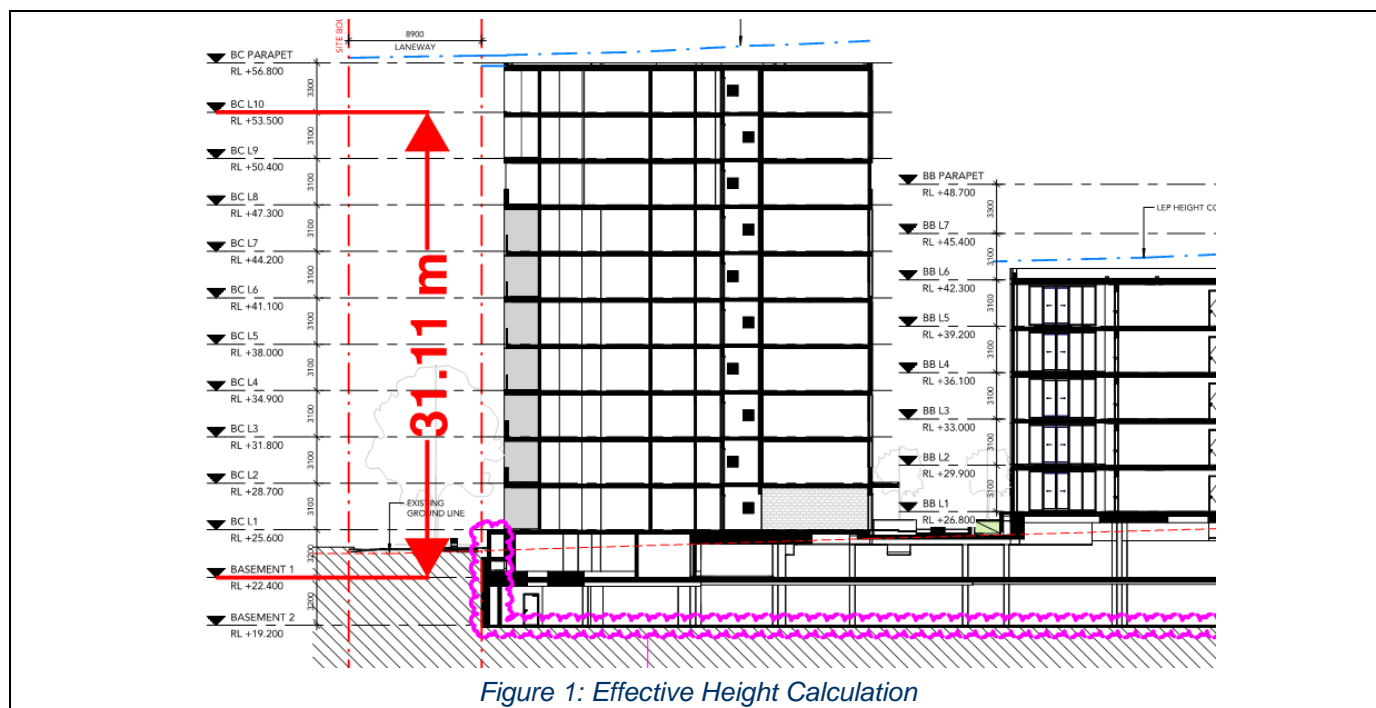
- Structural Provisions of the BCA (Section B) have not been considered. A suitably qualified Structural Engineer should be engaged to determine compliance.
- Accessibility Provisions of the BCA (BCA Part D4, Clause E3D7-E3D8 and F4D5-F4D7) have not been considered. A suitably qualified Access Consultant should be engaged to determine compliance.
- Energy Efficiency Provisions of the BCA (Section J) have not been considered. A suitably qualified Energy Consultant should be engaged to determine compliance.
- Reporting on hazardous materials, OH&S matters, or site contamination.
- Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building.
- Consideration of any fire services operations (including hydraulic, electrical, or other systems).
- Assessment of plumbing and drainage installations, including stormwater.
- Assessment of mechanical plant operations, electrical systems, or security systems.
- Heritage significance.
- Consideration of energy or water authority requirements.
- Consideration of Council's local planning policies.
- Environmental or planning issues.
- Requirements of statutory authorities.
- Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out).
- Provision of any construction approvals or certification under Part 6A of the Environmental Planning & Assessment Act 1979.
- Glazing, shading, lighting calculations and the like required by Section J of the BCA not been carried out.
- BCA 2022 does not directly specify slip-resistance classification(s) for all *accessible paths of travel*; however, we highlight the need under AS 1428.1-2009 for all *accessible paths of travel* to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.
- Provision of design advice is explicitly excluded from this report. No commentary within this report should be misconstrued as design advice, it is up to the applicant to engage the relevant designer / consultant to ensure that compliance with the BCA is appropriately demonstrated within the design.

3.0 BCA ASSESSMENT DATA

The following data is provided in respect to review of the building under the Building Code of Australia 2022 in respect to the compliance assessment of the proposed residential unit building, to be located at 5-7, 7A & 9 Croydon Street, Lakemba.

BCA Building Classifications:	Class 2 – Residential Unit Building Class 7a – Carpark Class 7b – Storage
Building rise in storeys:	11 (determined in accordance with C2D3 of the BCA).
Type of Construction:	Type A (determined in accordance with C2D2 of the BCA)
Effective Height (m):	31.1 m (RL 53.5 – RL 22.4) Note: Buildings A, B and C are all part of the same united building and are subject to the same effective height (>25 m) requirements.

3.1 Assessment of Effective Height



3.2 10% Classification Concession

- The storage areas on basement 1 and 2 have been calculated to be less than 10% of the storey and receive concession under A6G1.
- The storage room and managers office on Lower Ground Level in Building A, are each less than 10% of the floor area of the storey and receive concession under A6G1.

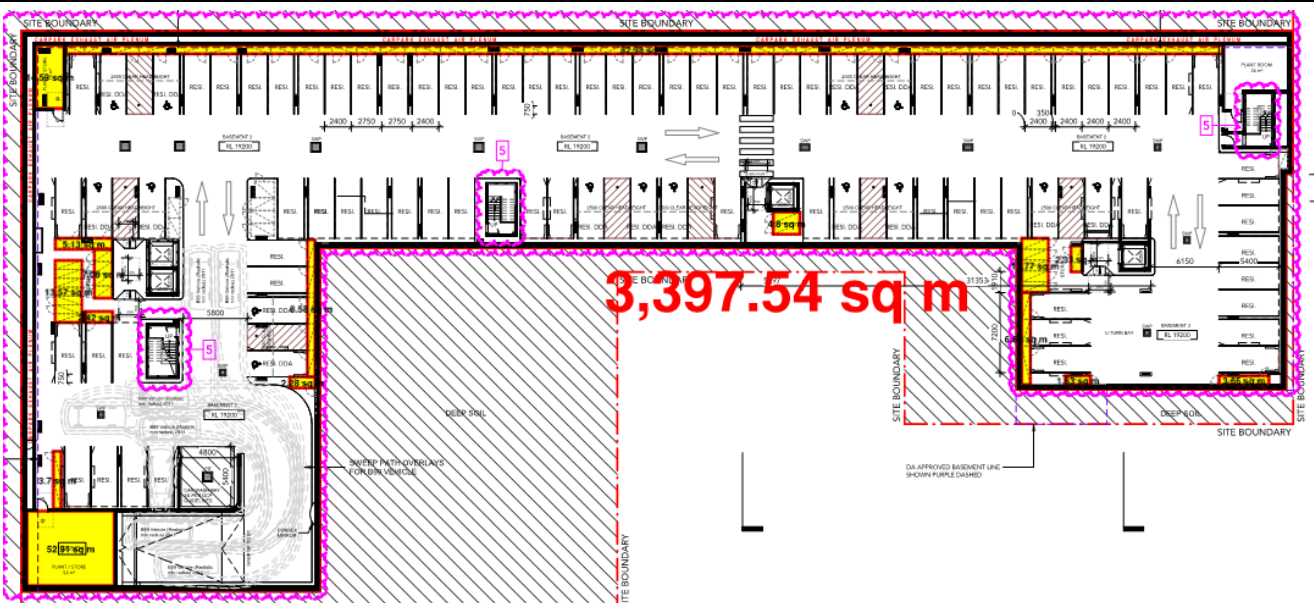


Figure 2: Basement 2 Storage Areas

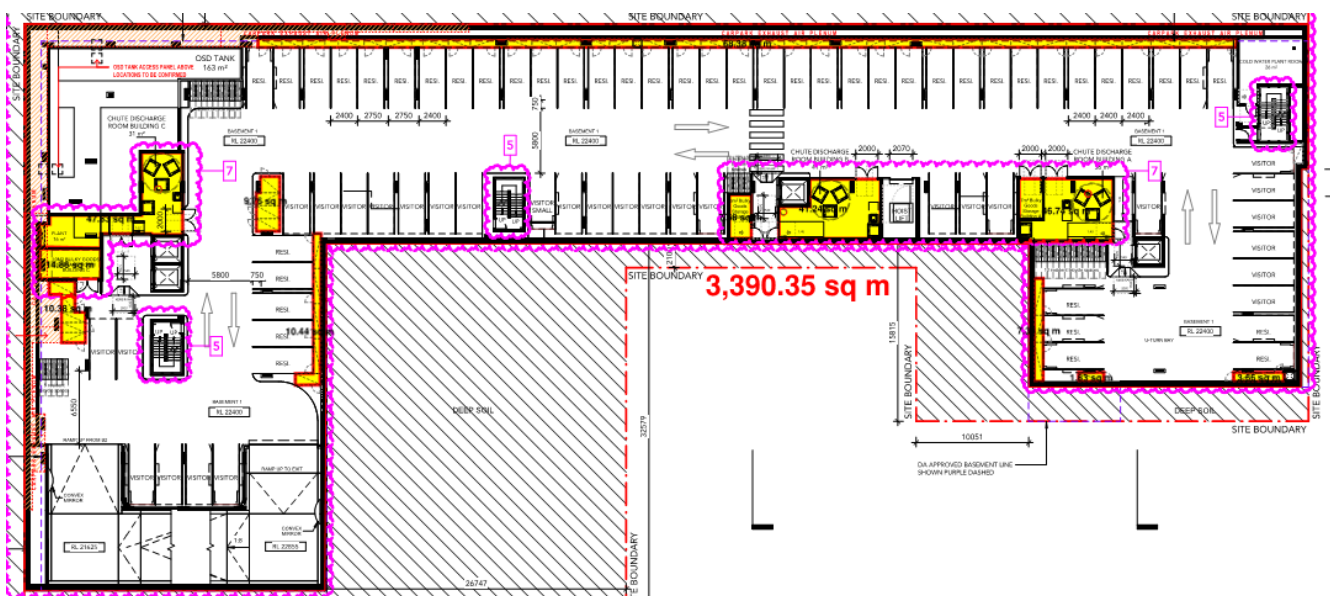
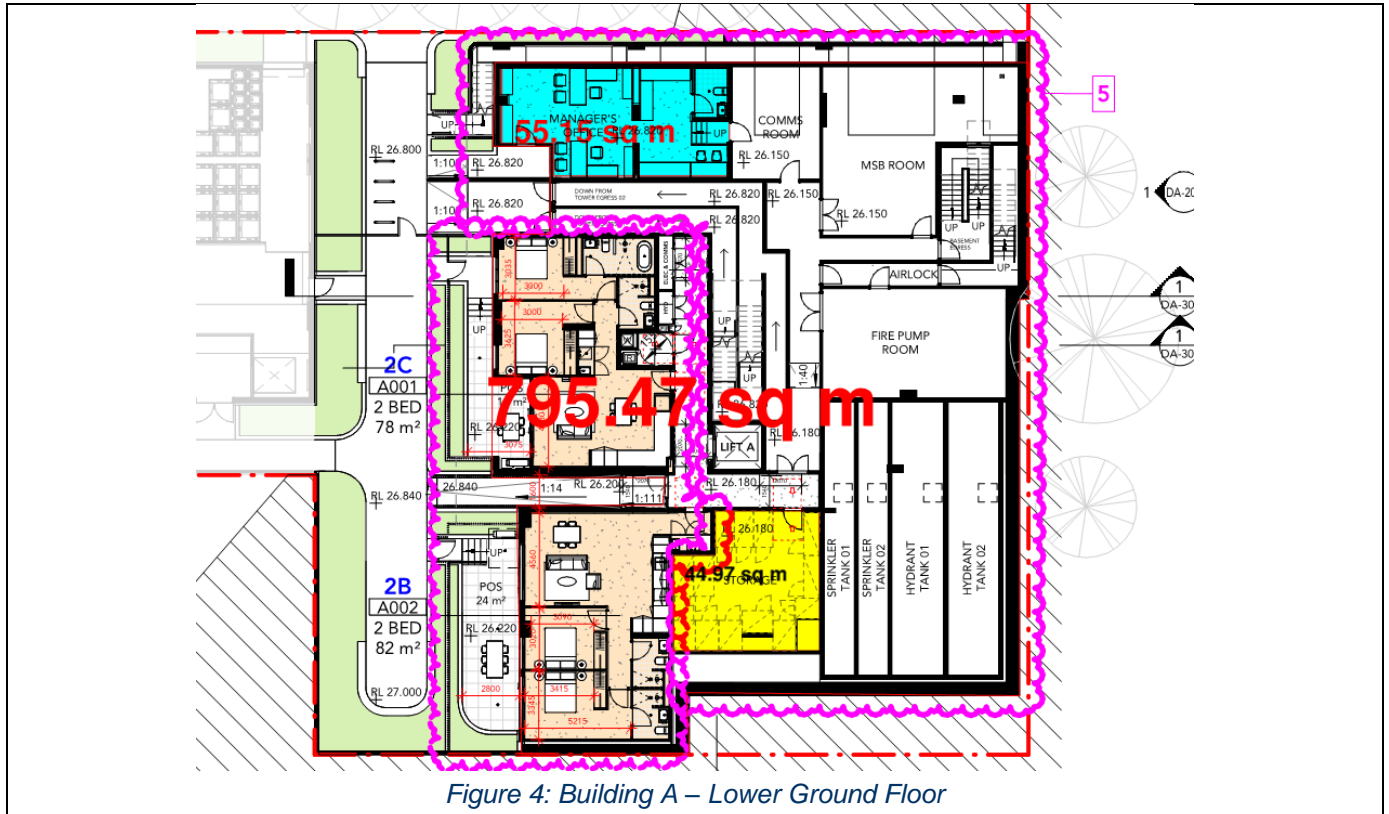


Figure 3: Basement 1 Storage Areas



3.3 Location of Fire Source features

The potential *fire source features* to be considered for this building are the external wall of another building on the allotment which is not a Class 10 building, the side or rear of the allotment boundary or the far side of the road bounding the allotment.

In this instance the following setbacks are determined in respect to the fire source features applicable to the building:

- North – side boundary of the allotment.
- South – side boundary of allotment adjoining 55, 54A, 54, 53A Railway Pde & 11 Croydon St.
- East – far boundary of Croydon Street.
- West – rear boundary of the allotment.

3.4 Summary of Fire Services Required

Summarised below are the BCA Deemed-to-Satisfy fire services required for the building:

- A fire hydrant system must be provided to serve all parts of the building in accordance with BCA Clause E1D2 and AS 2419.1-2021.
- A fire hose reel system must be provided in accordance with BCA Clause E1D3 and AS 2441-2005.
- A sprinkler system must be provided throughout all parts of the building in accordance with BCA Part E1, BCA Specification 17 and BCA Specification 18, as applicable.
- Portable fire extinguishers must be provided in accordance with BCA Clause E1D14 and must be selected, located, and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444-2001.
- A fire control centre facility must be provided in accordance with BCA Clause E1D15 and BCA Specification 19.
- An automatic smoke and fire detection must be provided in accordance with BCA Part E2, BCA Specification 20, AS 1670.1-2018 and AS 3786-2014, as applicable.

- Automatic air pressurisation must be provided to fire isolated stairs serving residential & basement levels and the fire control room in accordance with BCA Part E2, BCA Specification 19 and AS 1668.1-2015.
- A zone smoke control system must be provided between vertically separated fire compartments in accordance with BCA Part E2 and 1668.1-2015.
- Mechanical ventilation must be provided to the basement carpark in accordance with BCA Clause E2D2, E2D4, AS 1668.1-2015 and AS 1668.2-2012, incorporating metal fans.
- Emergency lighting must be provided throughout the building in accordance with BCA Clause E4D2, E4D4 and AS 2293.1-2018.
- Exit signage must be provided throughout the building in accordance with BCA Clause E4D5, NSW E4D6, E4D8 and AS 2293.1-2018.
- An emergency warning and intercom system (EWIS) must be provided in accordance with BCA Clause E4D9, and AS 1670.4-2018.
- Signage must be provided to exits in accordance with BCA Clause D3D28 and Section 108 of the Environmental Planning & Assessment (Development Certification and Fire Safety) Regulation 2021.
- Emergency lifts must be provided in accordance with BCA Part E3, BCA Clause E3D5 and C3D11.
- Service penetrations through building elements required to be fire-resisting must be provided with fire sealing in accordance with BCA Clause C4D15, Specification 13 and AS 1540.4-2014.
- Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in accordance with BCA Clause C4D16.
- Re-entry from fire-isolated exits must be provided in accordance with BCA Clause D3D27.
- In accordance with BCA Clause E2D3, an air-handling system which does not form part of a smoke hazard management system in accordance with clause E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment, subject to E2D3(2), must be designed and installed—
 - to operate as a smoke control system in accordance with AS 1668.1; or
 - incorporate smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served and is arranged such that the air-handling system is shut down and the smoke dampers are activated to close automatically by smoke detectors complying with clause 7.5 of AS 1670.1.
- Fire doors must be provided in accordance with BCA Sections C & D as applicable, BCA Specification 12 and AS 1905.1-2015.
- Openings into shafts must be provided with protection in accordance with BCA Clause C4D14.
- Fire dampers must be provided in accordance with BCA Clause C4D15, AS 1668.1-2015, AS 1682.1-2015 and AS 1682.2-2015.
- Fire shutters must be provided in accordance with BCA Specification 12, AS 1905.2-2005 and a tested prototype, as applicable.
- Fire windows must be provided in accordance with BCA Specification 12 and a tested prototype, as applicable.
- Smoke walls must be provided in accordance with BCA Clause C3D6, C3D15 and BCA Specification 11.
- Smoke doors must be provided in accordance with BCA Specification 11 and Specification 12.
- Smoke dampers must be provided in accordance with BCA Clauses C3D6, C3D15, E2D3 and BCA Specification 11.
- Fire-rated lift landing doors must be provided in accordance with BCA Clause C4D11 and AS 1735.11-1986.

4.0 BCA ASSESSMENT SUMMARY

The following table details the BCA compliance of the assessed design.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS															
Section B Structure																				
Part B1 Structural provisions																				
B1D1 Deemed-to-Satisfy Provisions [2019: B1.0]				X	(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements B1P1 to B1P4 are satisfied by complying with B1D2 to B1D6. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable. Structural plans and specifications demonstrating compliance with Section B must be developed by a suitably qualified structural engineer at construction certificate (CC) stage.															
Section C Fire resistance																				
Part C2 Fire resistance and stability																				
C2D2 Type of construction required [2019: C1.1]				X	(1) The minimum Type of fire-resisting construction of a building must be determined in accordance with Table C2D2. (2) Each building element must comply with Specification 5 as applicable. Compliance commentary <ul style="list-style-type: none">Architect to develop FRL plans detailing compliance with Specification 5, as applicable to Type A Construction.Structural Engineer to develop plans detailing compliance with Specification 5, as applicable to Type A Construction. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification															
<table><tr><th>Rise in storeys</th><th>Class of building 2, 3, 9</th><th>Class of building 5, 6, 7, 8</th></tr><tr><td>4 or more</td><td>A</td><td>A</td></tr><tr><td>3</td><td>A</td><td>B</td></tr><tr><td>4</td><td>B</td><td>C</td></tr><tr><td>1</td><td>C</td><td>C</td></tr></table>						Rise in storeys	Class of building 2, 3, 9	Class of building 5, 6, 7, 8	4 or more	A	A	3	A	B	4	B	C	1	C	C
Rise in storeys	Class of building 2, 3, 9	Class of building 5, 6, 7, 8																		
4 or more	A	A																		
3	A	B																		
4	B	C																		
1	C	C																		
C2D3 Calculation of rise in storeys [2019: C1.2]			X		(1) The rise in storeys is the sum of the greatest number of storeys at any part of the external walls of the building and any storeys within the roof space— (a) above the finished ground next to that part; or (b) if part of the external wall is on the boundary of the allotment, above the natural ground level at the relevant part of the boundary. (2) A storey is not counted if— (a) it is situated at the top of the building and contains only heating, ventilating or lift equipment, water tanks, or similar service units or equipment; or (b) it is situated partly below the finished ground and the underside of the ceiling is not more than 1 m above the average finished level of the ground at the external wall, or if the external wall is more															

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>than 12 m long, the average for the 12 m part where the ground is lowest.</p> <p>(3) In a Class 7 or 8 building, a storey that has an average internal height of more than 6 m is counted as—</p> <p>(a) one storey if it is the only storey above the ground; or</p> <p>(b) 2 storeys in any other case.</p> <p>(4) For the purposes of calculating the rise in storeys of a building—</p> <p>(a) a mezzanine is regarded as a storey in that part of the building in which it is situated if its floor area is more than 200 m² or more than 1/3 of the floor area of the room, whichever is the lesser; and</p> <p>(b) two or more mezzanines are regarded as a storey in that part of the building in which they are situated if they are at or near the same level and have an aggregate floor area more than 200 m² or more than 1/3 of the floor area of the room, whichever is the lesser.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> The building has a rise in storeys of 11.
C2D9 Lightweight construction [2019: C1.8]				X	<p>(1) Lightweight construction must comply with Specification 6 if it is used in a wall system—</p> <p>(a) that is required to have an FRL; or</p> <p>(b) for a lift shaft, stair shaft or service shaft or an external wall bounding a public corridor including a non-fire-isolated passageway or non-fire-isolated ramp, in a spectator stand, sports stadium, cinema or theatre, railway station, bus station or airport terminal.</p> <p>(2) If lightweight construction is used for the fire-resisting covering of a steel column or the like, and if—</p> <p>(a) the covering is not in continuous contact with the column, then the void must be filled solid, to a height of not less than 1.2 m above the floor to prevent indenting; and</p> <p>(b) the column is liable to be damaged from the movement of vehicles, materials, or equipment, then the covering must be protected by steel or other suitable material.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C2D10 Non-combustible building elements [2019: C1.9]				X	<p>(1) In a building required to be of Type A construction, the following building elements and their components must be non-combustible:</p> <p>(a) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation.</p> <p>(b) The flooring and floor framing of lift pits.</p> <p>(c) Non-loadbearing internal walls where they are required to be fire-resisting.</p> <p>(2) A shaft, being a lift, ventilating, pipe, garbage, or similar shaft that is not for the discharge of hot products of combustion, that is non-loadbearing, must be of non-combustible construction in—</p> <p>(a) a building required to be of Type A construction; and</p> <p>(3) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shafts, must comply with Specification 5.</p> <p>(4) The requirements of (1) and (2) do not apply to the following:</p> <p>(a) Gaskets.</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) Caulking.</p> <p>(c) Sealants.</p> <p>(d) Termite management systems.</p> <p>(e) Glass, including laminated glass, and associated adhesives, including tapes.</p> <p>(f) Thermal breaks associated with—</p> <ul style="list-style-type: none"> (i) glazing systems; or (ii) external wall systems, where the thermal breaks— <ul style="list-style-type: none"> (A) are no larger than necessary to achieve thermal objectives; and (B) do not extend beyond one storey; and (C) do not extend beyond one fire compartment. <p>(g) Damp-proof courses.</p> <p>(h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm.</p> <p>(i) Isolated—</p> <ul style="list-style-type: none"> (i) construction packers and shims; or (ii) blocking for fixing fixtures; or (iii) fixings, including fixing accessories; or (iv) acoustic mounts. <p>(j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level.</p> <p>(k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm.</p> <p>(l) Weather sealing materials, applied to gaps not wider than 50mm, used within and between concrete elements.</p> <p>(m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as appropriate, and associated with masonry wall construction.</p> <p>(n) Reinforcing bars and associated minor elements that are wholly or predominately encased in concrete or grout.</p> <p>(o) A paint, lacquer or a similar finish or coating.</p> <p>(p) Adhesives, including tapes, associated with stiffeners for cladding systems.</p> <p>(q) Fire-protective materials and components required for the protection of penetrations.</p> <p>(5) The following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required:</p> <ul style="list-style-type: none"> (a) Concrete. (b) Steel, including metallic coated steel. (c) Masonry, including mortar. (d) Aluminium, including aluminium alloy. (e) Autoclaved aerated concrete, including mortar. (f) Iron. (g) Terracotta. (h) Porcelain.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(i) Ceramic.</p> <p>(j) Natural stone.</p> <p>(k) Copper.</p> <p>(l) Zinc.</p> <p>(m) Lead.</p> <p>(n) Bronze.</p> <p>(o) Brass.</p> <p>(6) The following materials may be used wherever a non-combustible material is required:</p> <p>(a) Plasterboard.</p> <p>(b) Perforated gypsum lath with a normal paper finish.</p> <p>(c) Fibrous-plaster sheet.</p> <p>(d) Fibre-reinforced cement sheeting.</p> <p>(e) Pre-finished metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0.</p> <p>(f) Sarking-type materials that do not exceed 1 mm in thickness and have a Flammability Index not greater than 5.</p> <p>(g) Bonded laminated materials where—</p> <p>(i) each lamina, including any core, is non-combustible; and</p> <p>(ii) each adhesive layer does not exceed 1 mm in thickness and the total thickness of the adhesive layers does not exceed 2 mm; and</p> <p>(iii) the Spread-of-Flame Index and the Smoke-Developed Index of the bonded laminated material as a whole do not exceed 0 and 3 respectively; and</p> <p>(iv) when located externally, are fixed in accordance with C2D15.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop materials schedule for the building elements required to be non-combustible under part (1) of this clause. The materials schedule must identify the specific products to be used and demonstrate that they are non-combustible having been tested in accordance with AS 1530.1 or are otherwise exempt from being non-combustible under parts (4), (5) and (6) of this clause. AS 1530.1 test reports should be provided to AED and referenced within the materials schedule as applicable. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW C2D11 Fire hazard properties [2019: C1.10 and NSW C1.10]				X	<p>The fire hazard properties of the internal linings, materials and assemblies within the building must comply with Specification 7, except where concession is provided under this clause.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C2D14 Ancillary elements [2019: C1.14]				X	<p>An ancillary element must not be fixed, installed, attached to or supported by the concealed internal parts or external face of an external wall that is required to be non-combustible unless it is one of the following:</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(a) An ancillary element that is non-combustible.</p> <p>(b) A gutter, downpipe or other plumbing fixture or fitting.</p> <p>(c) A flashing. A grate, grille or similar cover not more than 2 m²</p> <p>(d) in area associated with a building service.</p> <p>(e) An electrical switch, socket-outlet, cover plate or the like.</p> <p>(f) A light fitting.</p> <p>(g) A required sign.</p> <p>(h) A sign other than one provided under (a) or (g) that—</p> <ul style="list-style-type: none"> (i) achieves a group number of 1 or 2; and (ii) does not extend beyond one storey; and (iii) does not extend beyond one fire compartment; and (iv) is separated vertically from other signs permitted under (h) by at least 2 storeys. <p>(i) An awning, sunshade, canopy, blind or shading hood other than one provided under (a) that—</p> <ul style="list-style-type: none"> (i) meets the relevant requirements of Table S7C7 as for an internal element; and (ii) serves a storey— <ul style="list-style-type: none"> (A) at ground level; or (B) immediately above a storey at ground level; and (iii) does not serve an exit, where it would render the exit unusable in a fire. <p>(j) A part of a security, intercom or announcement system.</p> <p>(k) Wiring.</p> <p>(l) Waterproofing material installed in accordance with AS 4654.2 and applied to an adjacent floor surface, including vertical upturn, or a roof surface.</p> <p>(m) Collars, sleeves and insulation associated with service installations.</p> <p>(n) Screens applied to vents, weepholes and gaps complying with AS 3959.</p> <p>(o) Wiper and brush seals associated with doors, windows or other openings.</p> <p>(p) A gasket, caulking, sealant or adhesive directly associated with (a) to (o).</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop materials schedule for the any ancillary elements required to be non-combustible under this clause. The materials schedule must identify the specific products to be used and demonstrate that they are non-combustible having been tested in accordance with AS 1530.1 or are otherwise exempt from being non-combustible under this clause. AS 1530.1 test reports should be provided to AED and referenced within the materials schedule as applicable. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
C2D15 Fixing of bonded laminated cladding panels [New for 2022]				X	<p>(1) In a building required to be of Type A construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame.</p> <p>(2) An externally located bonded laminated cladding panel need not comply with (1) if it is one of the following:</p> <ul style="list-style-type: none"> (a) A laminated glass system. (b) Layered plasterboard product. (c) Perforated gypsum lath with a normal paper finish. (d) Fibrous-plaster sheet. (e) Fibre-reinforced cement sheeting. (f) A component of a garage door. <p>Compliance commentary</p> <ul style="list-style-type: none"> • Suitably qualified engineer to develop plans detailing the supports to the external cladding panels, in accordance with this clause. AED recommend that this is discussed with the structural engineer or façade engineer. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part C3 Compartmentation and separation					
C3D7 Vertical separation of openings in external walls [2019: C2.6]			X		The building is required to be provided with an AS 2118.1 sprinkler system, and therefore receives concession from the requirements of this clause.
C3D8 Separation by fire walls [2019: C2.7]				X	<p>(1) Construction — A fire wall must be constructed in accordance with the following:</p> <ul style="list-style-type: none"> (a) The fire wall has the relevant FRL prescribed by Specification 5 for each of the adjoining parts, and if these are different, the greater FRL, except where S5C18(c), S5C21(3) and S5C24(3) permit a lower FRL on the carpark side. (b) Any openings in a fire wall must not reduce the FRL required by Specification 5 for the fire wall, except where permitted by the Deemed-to-Satisfy Provisions of Part C4. (c) Building elements, other than roof battens with dimensions of 75 mm x 50 mm or less or sarking- type material, must not pass through or cross the fire wall unless the required fire-resisting performance of the fire wall is maintained. <p>(3) Separation of fire compartments — A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with (1) and the fire wall extends to the underside of—</p> <ul style="list-style-type: none"> (a) a floor having an FRL required for a fire wall; or (b) the roof covering. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D9				X	<p>(1) If a building has parts of different classifications located alongside one another in the same storey—</p>

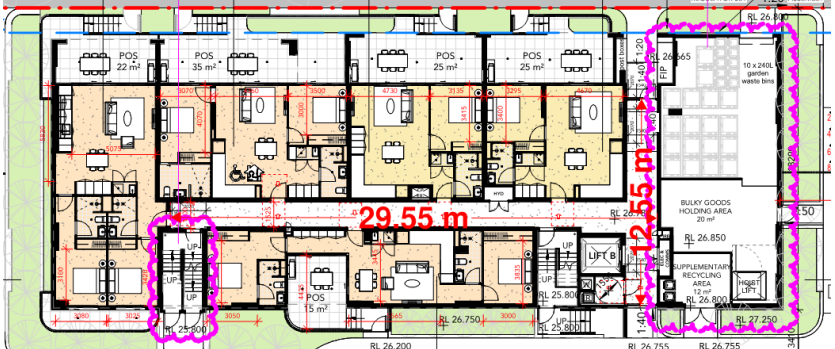
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Separation of classifications in the same storey [2019: C2.8]					<p>(a) each building element in that storey must have the higher FRL prescribed in Specification 5 for that element for the classifications concerned; or</p> <p>(b) the parts must be separated in that storey by a fire wall.</p> <p>(2) A fire wall required by (1)(b) must have the FRL prescribed in accordance with Specification 5 as applicable for that element for the Type of construction and the classifications concerned.</p> <p>(3) For the purposes of (2), the FRL in Specification 5 must be either—</p> <p>(a) the higher FRL prescribed in Tables S5C11a to S5C11g or S5C21a to S5C21f; or</p> <p>(b) the FRL prescribed in Tables S5C24a to S5C24e.</p> <p>(4) For the purposes of (1), where one part is a carpark complying with S5C19, S5C22 and S5C25, the parts may be separated by a fire wall complying with the appropriate Clause.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL floor plans demonstrating compliance with this clause. Storage areas in Basement 1 & 2 have been measured to be less than 10% and received concession under A6G1, hence the entire storeys can adopt a Class 7a classification. The storage room and managers office on the lower ground floor of Building A, each measure less than 10% of the floor area of the storey and can adopt a Class 2 classification. <p>Where separation is proposed in accordance with part (1)(b) of this clause—</p> <ul style="list-style-type: none"> Class 7b parts must be separated by a fire wall achieving an FRL of not less than 240/240/240. Class 7a parts must be separated by a fire wall achieving an FRL of not less than 120/120/120. Class 2 parts must be separated by a fire wall achieving an FRL of not less than 90/90/90. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D10 Separation of classifications in different storeys [2019: C2.9]				X	<p>If parts of different classification are situated one above the other in adjoining storeys, they must be separated as follows:</p> <p>(a) Type A construction — The floor between the adjoining parts must have an FRL of not less than that prescribed in Specification 5 for the classification of the lower storey.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL floor plans demonstrating compliance with this clause. Structural engineer will need to provide certification that the slabs achieve the required FRL's in accordance with this clause. <p>Where separation is proposed in accordance with part (1)(b) of this clause—</p> <ul style="list-style-type: none"> Class 7b parts must be separated by a floor achieving an FRL of not less than 240/240/240.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> Class 7a parts must be separated by a floor achieving an FRL of not less than 120/120/120. Class 2 parts must be separated by a floor achieving an FRL of not less than 90/90/90. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D11 Separation of lift shafts [2019: C2.10]				X	<p>(1) Any lift connecting more than 2 storeys, or more than 3 storeys if the building is sprinklered, (other than lifts which are wholly within an atrium) must be separated from the remainder of the building by enclosure in a shaft in which—</p> <p>(a) in a building required to be of Type A construction — the walls have the relevant FRL prescribed by Specification 5; and</p> <p>(3) An emergency lift must be contained within a fire-resisting shaft having an FRL of not less than 120/120/120.</p> <p>(4) Openings for lift landing doors and services must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans detailing that the lift shafts comply with this clause. Structural engineer to develop plans demonstrating compliance with the requirements of this. Structural engineer will need to certify that the plans achieve compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D13 Separation of equipment [2019: C2.12]				X	<p>(1) Equipment other than that described in (2) and (3) must be separated from the remainder of the building with construction complying with (4), if that equipment comprises—</p> <p>(a) lift motors and lift control panels; or</p> <p>(b) emergency generators used to sustain emergency equipment operating in the emergency mode; or</p> <p>(c) central smoke control plant; or</p> <p>(e) a battery system installed in the building that has a total voltage of 12 volts or more and a storage capacity of 200 kWh or more.</p> <p>(2) Equipment need not be separated in accordance with (1) if the equipment comprises—</p> <p>(a) smoke control exhaust fans located in the air stream which are constructed for high temperature operation in accordance with Specification 21; or</p> <p>(b) stair pressurising equipment installed in compliance with the relevant provisions of AS 1668.1; or</p> <p>(c) a lift installation without a machine-room; or</p> <p>(d) equipment otherwise adequately separated from the remainder of the building.</p> <p>(3) Separation of on-site fire pumps must comply with the requirements of AS 2419.1.</p> <p>(4) Separating construction must have—</p> <p>(a) except as provided by (b)—</p> <p>(i) an FRL as required by Specification 5, but not less than 120/120/120; and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) any doorway protected with a self-closing fire door having an FRL of not less than –/120/30; or</p> <p>(b) when separating a lift shaft and lift motor room, an FRL not less than 120/–/–.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans detailing compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D14 Electricity supply system [2019: C2.13]				X	<p>(2) A main switchboard located within the building which sustains emergency equipment operating in the emergency mode must—</p> <p>(a) be separated from any other part of the building by construction having an FRL of not less than 120/120/120; and</p> <p>(b) have any doorway in that construction protected with a self-closing fire door having an FRL of not less than – /120/30.</p> <p>(5) Where emergency equipment is required in a building, all switchboards in the electrical installation, which 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.</p> <p>(6) For the purposes of (5), emergency equipment includes but is not limited to the following:</p> <p>(a) Fire hydrant booster pumps.</p> <p>(b) Pumps for automatic sprinkler systems, water spray, chemical fluid suppression systems or the like.</p> <p>(c) Pumps for fire hose reels where such pumps and fire hose reels form the sole means of fire protection in the building.</p> <p>(d) Air handling systems designed to exhaust and control the spread of fire and smoke.</p> <p>(e) Emergency lifts.</p> <p>(f) Control and indicating equipment.</p> <p>(g) Emergency warning and intercom systems.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans detailing compliance with this clause. Ensure that protection is provided for the substation in accordance with Ausgrid requirements. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C3D15 Public corridors in Class 2 and 3 buildings [2019: C2.14]				X	<p>In a Class 2 or 3 building, a public corridor, if more than 40 m in length, must be divided at intervals of not more than 40 m with smoke-proof walls complying with S11C2.</p> <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Building B, Level 1 corridor measured more than 40 m in length (measured 42.1 m) and has not been divided at intervals with smoke-proof walls in accordance with this clause.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					 <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

Part C4 Protection of openings

C4D2 Application of Part [2019: C3.1]			X		<p>(1) The Deemed-to-Satisfy Provisions of this Part do not apply to the following:</p> <ul style="list-style-type: none"> (a) Control joints, weep holes and the like in external walls of masonry construction and joints between panels in external walls of pre-cast concrete panel construction if, in all cases they are not larger than necessary for the purpose. (b) Non-combustible ventilators for subfloor or cavity ventilation, if each does not exceed 45 000 mm² in face area and is spaced not less than 2 m from any other ventilator in the same wall. (c) Openings in the vertical plane formed between building elements at the construction edge or perimeter of a balcony or verandah, colonnade, terrace, or the like. (d) In a carpark floor other than a floor that separates a part not used as a carpark, and subject to the following openings in a carpark floor: <ul style="list-style-type: none"> (i) Service penetrations. (ii) Openings formed by a vehicle ramp. (e) The requirements of (d) only apply where the connected carpark levels comply as a single fire compartment for the purposes of all other requirements of the Deemed-to-Satisfy Provisions of Sections C, D and E. <p>(2) For the purposes of the Deemed-to-Satisfy Provisions of this Part, openings in building elements required to be fire-resisting include doorways, windows (including any associated fanlight), infill panels and fixed or openable glazed areas that do not have the required FRL.</p> <p>(3) For the purposes of the Deemed-to-Satisfy Provisions of this Part, openings, other than those covered under (1)(c), between building elements such as columns, beams and the like, in the plane formed at the construction edge or perimeter of the building, are deemed to be openings in an external wall.</p>
C4D3 Protection of openings in external walls [2019: C3.2]				X	<p>(1) Subject to (2), openings in an external wall that is required to have an FRL must be protected in accordance with C4D5, and if wall-wetting sprinklers are used they must be located externally.</p> <p>(2) The requirements of (1) only apply if the distance between the opening and the fire-source feature to which it is exposed is less than—</p> <ul style="list-style-type: none"> (a) 3 m from a side or rear boundary of the allotment; or



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) 6 m from the far boundary of a road, river, lake or the like adjoining the allotment, if not located in a storey at or near ground level; or</p> <p>(c) 6 m from another building on the allotment that is not Class 10.</p> <p>(3) Openings in an external wall that is required to have an FRL, if required to be protected under (1), must not occupy more than 1/3 of the area of the external wall of the storey in which it is located unless they are in a Class 9b building used as an open spectator stand.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to ensure that CC plans are developed to detail that the blade wall protecting the openings to the unit on the Lower Ground of Building A achieve an FRL of not less than 60/-/-.
C4D4 Separation of external walls and associated openings in different fire compartments [2019: C3.3]			X		<p>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 C4D4, unless—</p> <p>(a) those parts of each wall have an FRL not less than 60/60/60; and</p> <p>(b) any openings protected in accordance with C4D5.</p>
C4D5 Acceptable methods of protection [2019: C3.4]			X		<p>(1) Where protection is required, doorways, windows and other openings must be protected as follows:</p> <p>(a) Doorways—</p> <p>(i) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or</p> <p>(ii) –/60/30 fire doors that are self-closing or automatic closing.</p> <p>(b) Windows—</p> <p>(i) internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or</p> <p>(ii) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or</p> <p>(iii) –/60/– automatic closing fire shutters.</p> <p>(c) Other openings—</p> <p>(i) excluding voids — internal or external wall-wetting sprinklers, as appropriate; or</p> <p>(ii) construction having an FRL not less than –/60/–.</p> <p>(2) Fire doors, fire windows and fire shutters must comply with Specification 12.</p>
C4D6 Doorways in fire walls [2019: C3.5]				X	<p>(1) The aggregate width of openings for doorways in a fire wall, which are not part of a horizontal exit, must not exceed ½ of the length of the fire wall, and each doorway must be protected by—</p> <p>(a) 2 fire doors or fire shutters, one on each side of the doorway, each of which has an FRL of not less than ½ that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30; or</p> <p>(b) a fire door on one side and a fire shutter on the other side of the doorway, each of which complies with (a); or</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) a single fire door or fire shutter which has an FRL of not less than that required by Specification 5 for the fire wall except that each door or shutter must have an insulation level of at least 30.</p> <p>(2) A fire door or fire shutter required by (1)(a), (b) or (c) must be self-closing, or automatic closing in accordance with (3) and (4).</p> <p>(3) The automatic closing operation required by (2) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located on each side of the fire wall not more than 1.5 m horizontal distance from the opening.</p> <p>(4) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system in either fire compartment separated by the fire wall must also initiate the automatic closing operation.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop a door schedule demonstrating compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D9 Openings in fire-isolated exits [2019: C3.8]				X	<p>(1) Doorways that open to fire-isolated stairways, fire-isolated passageways or fire-isolated ramps, and are not doorways opening to a road or open space, must be protected by –/60/30 fire doors that are self-closing, or automatic closing in accordance with (2) and (3).</p> <p>(2) The automatic-closing operation required by (1) must be initiated by the activation of a smoke detector, or any other detector deemed suitable in accordance with AS 1670.1 if smoke detectors are unsuitable in the atmosphere, installed in accordance with the relevant provisions of AS 1670.1 and located not more than 1.5 m horizontal distance from the approach side of the doorway.</p> <p>(3) Where any other required suitable fire alarm system, including a sprinkler system (other than a FPAA101D system) complying with Specification 17, is installed in the building, activation of the system must also initiate the automatic-closing operation.</p> <p>(4) A window in an external wall of a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp must be protected in accordance with C4D5 if it is within 6 m of, and exposed to, a window or other opening in a wall of the same building, other than in the same fire-isolated enclosure.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop a door schedule demonstrating compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D10 Service penetrations in fire-isolated exits [2019: C3.9]				X	<p>Fire-isolated exits must not be penetrated by any services other than—</p> <p>(a) electrical wiring permitted by D3D8(6) to be installed within the exit; or</p> <p>(b) ducting associated with a pressurisation system if it—</p> <p>(i) is constructed of material having an FRL of not less than –/120/60 where it passes through any other part of the building; and</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) does not open into any other part of the building; or</p> <p>(c) for fire services, water supply and test drain pipes.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D11 Openings in fire-isolated lift shafts [2019: C3.10]				X	<p>(1) Doorways — If a lift shaft is required to be fire-isolated, an entrance doorway to that shaft must be protected by – /60/– fire doors that—</p> <p>(a) comply with AS 1735.11; and</p> <p>(b) are set to remain closed except when discharging or receiving passengers, goods or vehicles.</p> <p>(2) Lift indicator panels — A lift call panel, indicator panel or other panel in the wall of a fire-isolated lift shaft must be backed by construction having an FRL of not less than –/60/60 if it exceeds 35 000 mm² in area.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW C4D12 Bounding construction: Class 2 and 3 buildings and Class 4 parts [2019: C3.11]				X	<p>(1) A doorway in a Class 2 or 3 building must be protected if it provides access from a sole-occupancy unit to—</p> <p>(a) a public corridor, public lobby, or the like; or</p> <p>(b) a room not within a sole-occupancy unit; or</p> <p>(c) the landing of an internal non fire-isolated stairway that serves as a required exit; or</p> <p>(d) another sole-occupancy unit.</p> <p>(2) A doorway in a Class 2 or 3 building must be protected if it provides access from a room not within a sole-occupancy unit to—</p> <p>(a) a public corridor, public lobby, or the like; or</p> <p>(b) the landing of an internal non fire-isolated stairway that serves as a required exit.</p> <p>(4) Except as provided for in NSW C4D12(5), protection for a doorway required under (1), (2) or (3) must be at least—</p> <p>(a) in a building of Type A construction — a self-closing –/60/30 fire door; and</p> <p>(6) Other openings in internal walls which are required to have an FRL with respect to integrity and insulation must not reduce the fire-resisting performance of the wall.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans demonstrating compliance with this clause. Architect to develop a door schedule demonstrating compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D13 Openings in floors and ceilings for services [2019: C3.12]				X	<p>(1) Where a service passes through—</p> <p>(a) a floor that is required to have an FRL with respect to integrity and insulation; or</p> <p>(b) a ceiling required to have a resistance to the incipient spread of fire, the service must be installed in accordance with (2).</p> <p>(2) A service must be protected—</p> <p>(a) in a building of Type A construction, by a shaft complying with Specification 5; or</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) in accordance with C4D15.</p> <p>(3) Where a service passes through a floor which is required to be protected by a fire-protective covering, the penetration must not reduce the fire performance of the covering.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire Stopping Specifications are to be developed scheduling the method of fire protection for services penetrating fire-rated building elements. AED recommend that a fire stopping specialist is engaged to assist with this. Architect to indicate the location of any proposed shafts within the building and demonstrate compliance with the requirements of this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D14 Openings in shafts [2019: C3.13]				X	<p>In a building of Type A construction, an opening in a wall providing access to a ventilating, pipe, garbage or other service shaft must be protected by—</p> <p>(a) if it is in a sanitary compartment — a door or panel which, together with its frame, is non-combustible or has an FRL of not less than –/30/30; or</p> <p>(b) a self-closing –/60/30 fire door or hopper; or</p> <p>(c) an access panel having an FRL of not less than –/60/30; or</p> <p>(d) if the shaft is a garbage shaft — a door or hopper of non-combustible construction.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D15 Openings for service installations [2019: C3.15]				X	<p>(1) The requirements of (2) apply where an electrical, electronic, plumbing, mechanical ventilation, air-conditioning or other service penetrates a building element (other than an external wall or roof) that is required to have an FRL with respect to integrity or insulation or a resistance to the incipient spread of fire.</p> <p>(2) An installation mentioned in (1) must comply with any one of the following:</p> <p>(a) Tested systems — the following applies:</p> <p>(i) The service, building element and any protection method at the penetration—</p> <p>(A) are identical with a prototype assembly of the service, building element and protection method which has been tested in accordance with AS 4072.1 and AS 1530.4 and has achieved the required FRL or resistance to the incipient spread of fire; or</p> <p>(B) differ from a prototype assembly of the service, building element and protection method in accordance with Section 4 of AS 4072.1.</p> <p>(ii) It complies with (i) except for the insulation criteria relating to the service if—</p> <p>(A) the service is a pipe system comprised entirely of metal (excluding pipe seals or the like); and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(B) any combustible building element is not located within 100mm of the service for a distance of 2 m from the penetration; and</p> <p>(C) combustible material is not able to be located within 100 mm of the service for a distance of 2m from the penetration; and</p> <p>(D) it is not located in a required exit.</p> <p>(iii) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2.</p> <p>(b) Ventilation and air-conditioning — in the case of ventilating or air-conditioning ducts or equipment, the installation is in accordance with AS 1668.1.</p> <p>(c) Compliance with Specification 13 — the following applies:</p> <p>(i) The service is a pipe system comprised entirely of metal (excluding pipe seals or the like) and is installed in accordance with Specification 13 and it—</p> <p>(A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and</p> <p>(B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts; and</p> <p>(C) does not contain a flammable or combustible liquid or gas.</p> <p>(ii) The service is sanitary plumbing installed in accordance with Specification 13 and it—</p> <p>(A) is of metal or UPVC pipe; and</p> <p>(B) penetrates the floors of a Class 5, 6, 7, 8 or 9b building; and</p> <p>(C) is in a sanitary compartment separated from other parts of the building by walls with the FRL required by Specification 5 for a stair shaft in the building and a self-closing –/60/30 fire door.</p> <p>(iii) The service is a wire or cable, or a cluster of wires or cables installed in accordance with Specification 13 and it—</p> <p>(A) penetrates a wall, floor or ceiling, but not a ceiling required to have a resistance to the incipient spread of fire; and</p> <p>(B) connects not more than 2 fire compartments in addition to any fire-resisting service shafts.</p> <p>(iv) The service is an electrical switch, outlet, or the like, and it is installed in accordance with Specification 13.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire Stopping Specifications are to be developed scheduling the method of fire protection for services penetrating fire-rated building elements. AED recommend that a fire stopping specialist is engaged to assist with this. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>



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C4D16 Construction joints [2019: C3.16]				X	<p>(1) Construction joints, spaces and the like in and between building elements required to be fire-resisting with respect to integrity and insulation must be protected in a manner—</p> <p>(a) identical with a prototype tested in accordance with AS 4072.1 and AS 1530.4 to achieve the required FRL; or</p> <p>(b) that differs from a prototype in accordance with Section 4 of AS 4072.1 and achieves the required FRL.</p> <p>(2) The determination of the required FRL must be confirmed in a report from an Accredited Testing Laboratory in accordance with Specifications 1 and 2.</p> <p>(3) The requirements of (1) do not apply where joints, spaces and the like between fire-protected timber elements are provided with cavity barriers in accordance with Specification 9.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
C4D17 Columns protected with lightweight construction to achieve an FRL [2019: C3.17]				X	<p>A column protected by lightweight construction to achieve an FRL which passes through a building element that is required to have an FRL or a resistance to the incipient spread of fire, must be installed using a method and materials identical with a prototype assembly of the construction which has achieved the required FRL or resistance to the incipient spread of fire.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

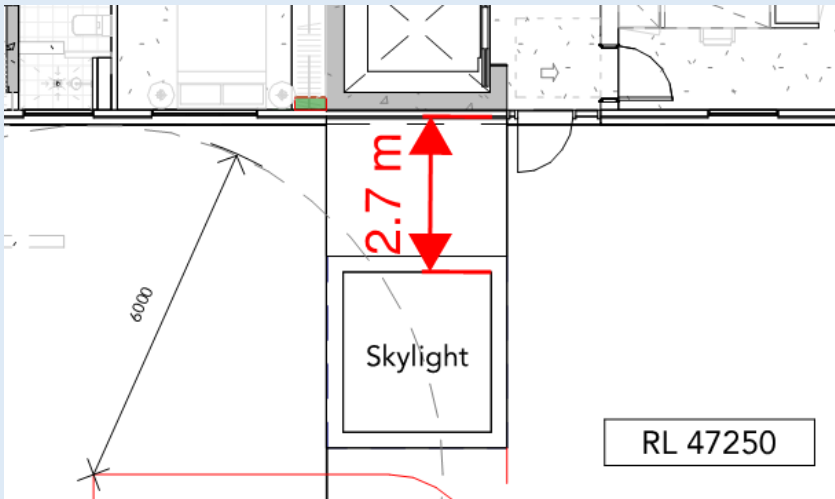
Specification 5 Fire-resisting construction

S5C3 Fire protection for a support of another part [2019: Spec C1.1: 2.2]				X	<p>(1) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (2), must—</p> <p>(a) have an FRL not less than that required by other provisions of this Specification; and</p> <p>(b) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required—</p> <p>(i) for the supporting part itself; and</p> <p>(ii) for the part it supports; and</p> <p>(c) be non-combustible—</p> <p>(i) if required by other provisions of this Specification; or</p> <p>(ii) if the part it supports is required to be non-combustible.</p> <p>(2) The following building elements need not comply with (1)(b) and (1)(c)(ii):</p> <p>(a) An element providing lateral support to an external wall complying with S5C24(1)(b) or C2D12.</p> <p>(b) An element providing support within a carpark and complying with S5C19, S5C22 or S5C25.</p> <p>(c) A roof providing lateral support in a building—</p> <p>(i) of Type A construction if it complies with S5C15(a), (b) or (d); and</p> <p>(d) A column providing lateral support to a wall where the column complies with S5C6(1) and (2).</p> <p>(e) An element providing lateral support to a fire wall or fire-resisting wall, provided the wall is supported on both sides and</p>
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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>failure of the element on one side does not affect the fire performance of the wall.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Structural engineer will need to certify that the structural design complies with Specification 5. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S5C4</p> <p>Lintels</p> <p>[2019: Spec C1.1: 2.3]</p>				X	<p>(1) A lintel must have the FRL required for the part of the building in which it is situated.</p> <p>(2) A lintel need not comply with (1) if it does not contribute to the support of a fire door, fire window or fire shutter, and—</p> <p>(a) it spans an opening in—</p> <p>(i) a wall of a building containing only one storey; or</p> <p>(ii) a non-loadbearing wall of a Class 2 or 3 building; or</p> <p>(b) it spans an opening in masonry which is not more than 150 mm thick and—</p> <p>(i) not more than 3m wide if the masonry is non-loadbearing; or</p> <p>(ii) not more than 1.8 m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S5C5</p> <p>Method of attachment not to reduce the fire-resistance of building elements</p> <p>[2019: Spec C1.1: 2.4]</p>				X	<p>The method of attaching or installing a finish, lining, ancillary element or service installation to the building element must not reduce the fire-resistance of that element to below that required.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S5C6</p> <p>General concessions</p> <p>[2019: Spec C1.1: 2.5]</p>			X		<p>(1) Steel columns — A steel column, other than one in a fire wall or common wall, need not have an FRL in a building that contains—</p> <p>(a) only 1 storey; or</p> <p>(b) 2 storeys in some of its parts and 1 storey only in its remaining parts if the sum of the floor areas of the upper storeys of its 2 storey parts does not exceed the lesser of—</p> <p>(i) 1/8 of the sum of the floor areas of the 1 storey parts; or</p> <p>(ii) in the case of a building to which one of the maximum floor areas specified in Table C3D3 is applicable — 1/10 of that area; or</p> <p>(iii) in the case of a building to which two or more of the maximum floor area specified in Table C3D3 is applicable — 1/10 of the lesser of those areas.</p> <p>(3) Structures on roofs — A non-combustible structure situated on a roof need not comply with the other provisions of this Specification if it only contains—</p> <p>(a) lift motor equipment; or</p> <p>(b) one or more of the following:</p> <p>(i) Hot water or other water tanks.</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> (ii) Ventilating ductwork, ventilating fans and their motors. (iii) Air-conditioning chillers. (iv) Window cleaning equipment. (v) Other service units that are non-combustible and do not contain flammable or combustible liquids or gases.
S5C8 Enclosure of shafts [2019: Spec C1.1: 2.7]				X	(1) 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. (2) The provisions of (1) need not apply to— <ul style="list-style-type: none"> (a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or (b) the bottom of a shaft if it is non-combustible and laid directly on the ground Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S5C11 Type A fire-resisting construction — Fire-resistance of building elements [2019: Spec C1.1: 3.1 and Table 3]				X	(1) In a building required to be of Type A construction— <ul style="list-style-type: none"> (a) each building element listed in Tables S5C11a to S5C11g and any beam or column incorporated in it, must have an FRL not less than that listed in those Tables for the particular Class of building concerned; and (b) any internal wall required to have an FRL with respect to integrity and insulation must extend to— <ul style="list-style-type: none"> (i) the underside of the floor next above; or (ii) the underside of a roof complying with Tables S5C11a to S5C11g; or (iii) if under S5C15 the roof is not required to comply with Tables S5C11a to S5C11g, the underside of the non-combustible roof covering and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or (iv) a ceiling that is immediately below the roof and has a resistance to the incipient spread of fire to the roof space between the ceiling and the roof of not less than 60 minutes; and (c) a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from— <ul style="list-style-type: none"> (i) concrete; or (ii) masonry; or (iii) subject to (2), fire-protected timber; or (iv) any combination of (i) to (iii); and (d) the FRLs specified in Tables S5C11a to S5C11g for an external column apply also to those parts of an internal column that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature. (2) For the purposes of (1)(c)(iii), fire-protected timber may be used, provided that— <ul style="list-style-type: none"> (a) the building is— <ul style="list-style-type: none"> (i) a separate building; or

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) a part of a building—</p> <p>(A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or</p> <p>(B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and</p> <p>(b) the building has an effective height of not more than 25 m; and</p> <p>(c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and</p> <p>(d) any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and</p> <p>(e) cavity barriers are provided in accordance with Specification 9.</p> <p>(3) For the purposes of Table S5C11a and Table S5C11b, external wall includes any column and other building element incorporated within it or other external building element.</p> <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> Shelf-angles contained within the proposed brick façade are required to be fire-rated in accordance with Table S5C11a, as they are loadbearing elements. AED recognise that there are no DtS options apply a fire-rating to shelf-angles, as such it is recommended that this is discussed a suitably qualified fire engineer. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S5C12 Type A fire-resisting construction — Concessions for floors [2019: Spec C1.1: 3.2]			X		<p>A floor need not comply with Tables S5C11a to S5C11g if—</p> <p>(a) it is laid directly on the ground; or</p> <p>(b) in a Class 2, 3, 5 or 9 building, the space below is not a storey, does not accommodate motor vehicles, is not a storage or work area, and is not used for any other ancillary purpose; or</p> <p>(e) it is an open-access floor (for the accommodation of electrical and electronic services and the like) above a floor with the required FRL.</p>
S5C14 Type A fire-resisting construction — Roof superimposed on concrete slab: Concession [2019: Spec C1.1: 3.4]			X		<p>A roof superimposed on a concrete slab roof need not comply with S5C11 as to fire-resisting construction if—</p> <p>(a) the superimposed roof and any construction between it and the concrete slab roof are non-combustible throughout; and</p> <p>(b) the concrete slab roof complies with Tables S5C11a to S5C11g.</p>
S5C15 Type A fire-resisting construction — Roof: Concession			X		<p>A roof need not comply with Tables S5C11a to S5C11g if its covering is non-combustible and the building—</p> <p>(a) has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: Spec C1.1: 3.5]					(c) is of Class 2 or 3.
S5C16 Type A fire-resisting construction — Roof lights [2019: Spec C1.1: 3.6]		X			<p>If a roof is required to have an FRL or its covering is required to be non-combustible, roof lights or the like installed in that roof must—</p> <p>(a) have an aggregate area of not more than 20% of the roof surface; and</p> <p>(b) be not less than 3 m from—</p> <p>(i) any boundary of the allotment other than the boundary with a road or public place; and</p> <p>(ii) any part of the building which projects above the roof unless that part has the FRL required of a fire wall and any openings in that part of the wall for 6 m vertically above the roof light or the like are protected in accordance with C4D5; and</p> <p>(iii) any roof light or the like in an adjoining sole-occupancy unit if the walls bounding the unit are required to have an FRL; and</p> <p>(iv) any roof light or the like in an adjoining fire-separated section of the building; and</p> <p>(c) if a ceiling with a resistance to the incipient spread of fire is required, be installed in a way that will maintain the level of protection provided by the ceiling to the roof space.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> The roof light on level 8 of Building C is located within 3 m of the external wall of the building, as such the external wall is required to be protected in accordance with part (b)(ii) of this clause. Compliance should be demonstrated on the plans.  <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Specification 12 Fire doors, smoke doors, fire windows and shutters					
S12C2 Fire Doors [2019: Spec C3.4: 2]				X	<p>A required fire door must—</p> <p>(a) comply with AS 1905.1; and</p> <p>(b) not fail by radiation through any glazed part during the period specified for integrity in the required FRL.</p>

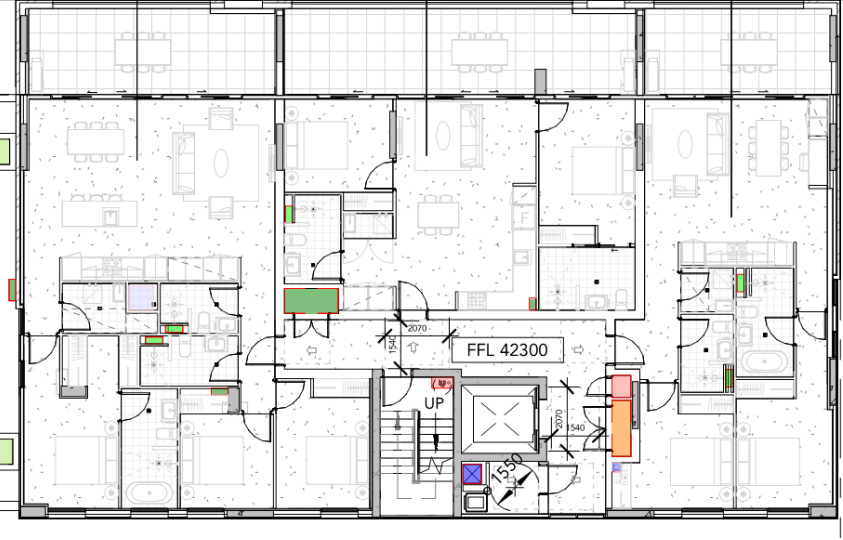
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S12C3 General requirements for smoke doors [2019: Spec C3.4: 3.1]			X		Smoke doors must be constructed so that smoke will not pass from one side of the doorway to the other and, if they are glazed, there is minimal danger of a person being injured by accidentally walking into them. Compliance commentary <ul style="list-style-type: none">Refer to comments provided under C3D15.
S12C4 Construction Deemed-to-Satisfy [2019: Spec C3.4: 3.2]			X		A smoke door of one or two leaves satisfies S12C3 if it is constructed as follows: <ul style="list-style-type: none">(a) The leaves are side-hung to swing—<ul style="list-style-type: none">(i) in the direction of egress; or(ii) in both directions.(b) The leaves are solid-core and at least 35 mm thick, or are capable of resisting smoke at 200°C for 30 minutes.(c) The leaves are fitted with smoke seals.(d) The leaves—<ul style="list-style-type: none">(i) are normally in the closed position; or(ii) operate such that—<ul style="list-style-type: none">(A) they are closed automatically with the automatic closing operation initiated by smoke detectors, installed in accordance with the relevant provisions of AS 1670.1, located on each side of the doorway not more than 1.5 m horizontal distance from the doorway; and(B) in the event of power failure to the door, they will fail-safe in the closed position.(e) The leaves return to the fully closed position after each manual opening.(f) Any glazing incorporated in the door complies with AS 1288.(g) If a glazed panel is capable of being mistaken for an unobstructed exit, the presence of the glass must be identified by an opaque mid-height band, mid-rail, crash-bar or other opaque construction. Compliance commentary <ul style="list-style-type: none">Refer to comments provided under C3D15.
S12C5 Fire shutters [2019: Spec C3.4: 4]				X	A required fire shutter must— <ul style="list-style-type: none">(a) be a shutter that—<ul style="list-style-type: none">(i) is identical with a tested prototype that has achieved the required FRL; and(ii) is installed in the same manner and in an opening that is not larger than the tested prototype; and(iii) did not have a rise in average temperature on the side remote from the furnace of more than 140 K during the first 30 minutes of the test; or(b) be a steel shutter complying with AS 1905.2 if a metallic fire shutter is not prohibited by C4D6.

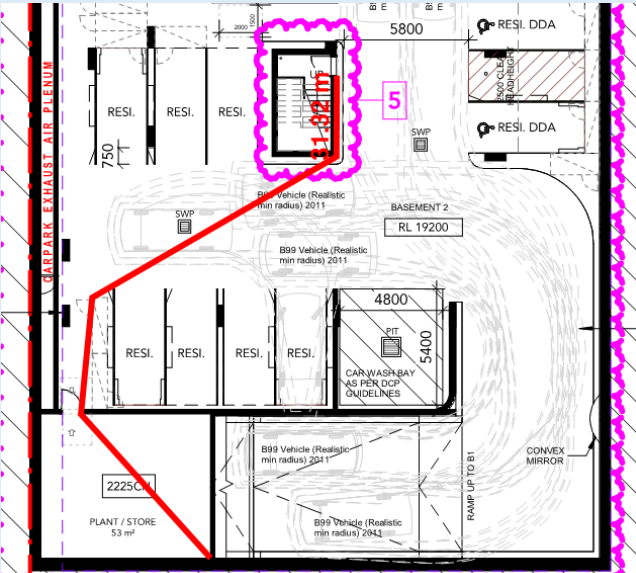
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S12C6 Fire windows [2019: Spec C3.4: 6]				X	<p>A required fire window must be—</p> <p>(a) identical in construction with a prototype that has achieved the required FRL; and</p> <p>(b) installed in the same manner and in an opening that is not larger than the tested prototype.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

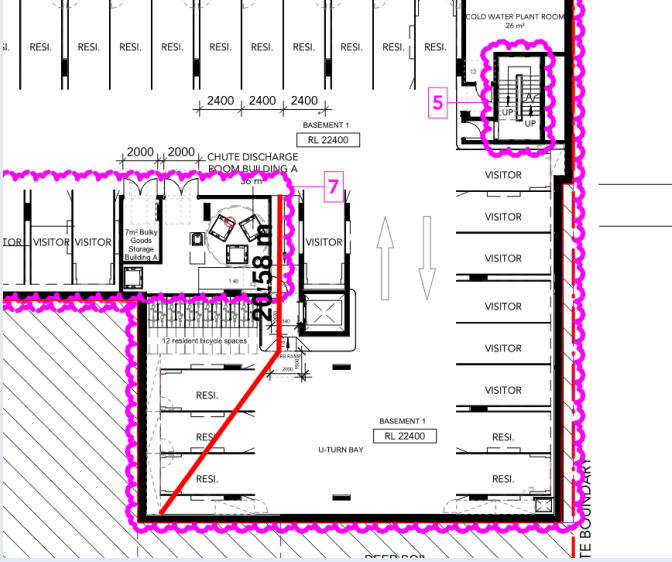
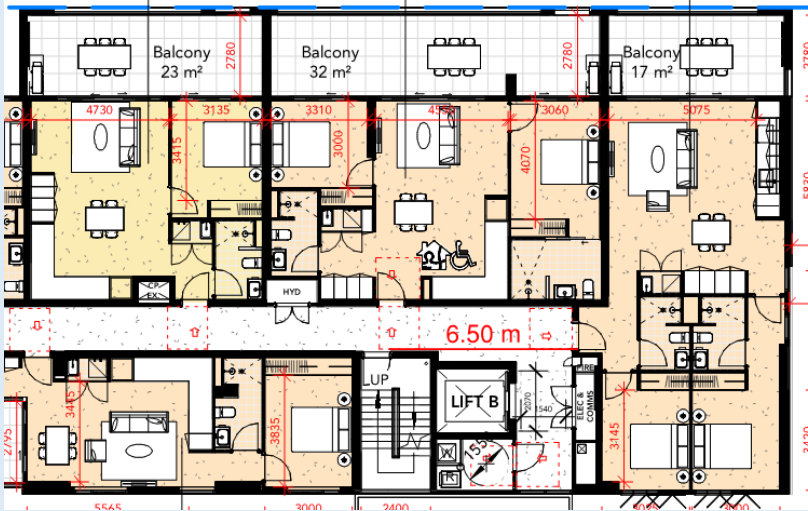
Section D Access and Egress

Part D2 Provision for escape

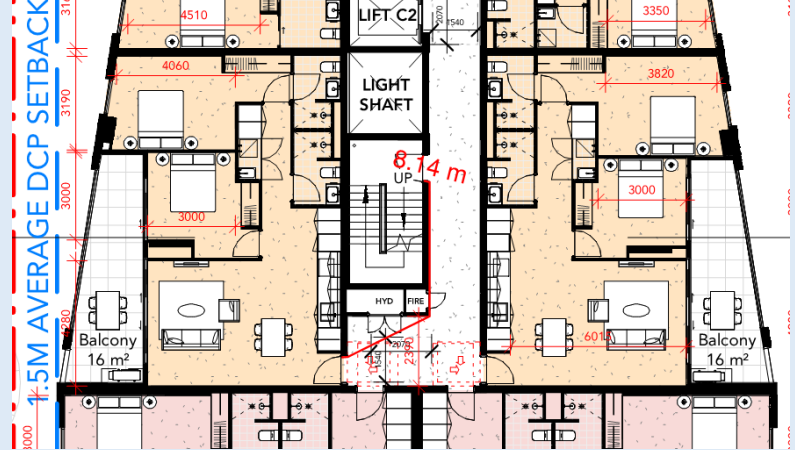
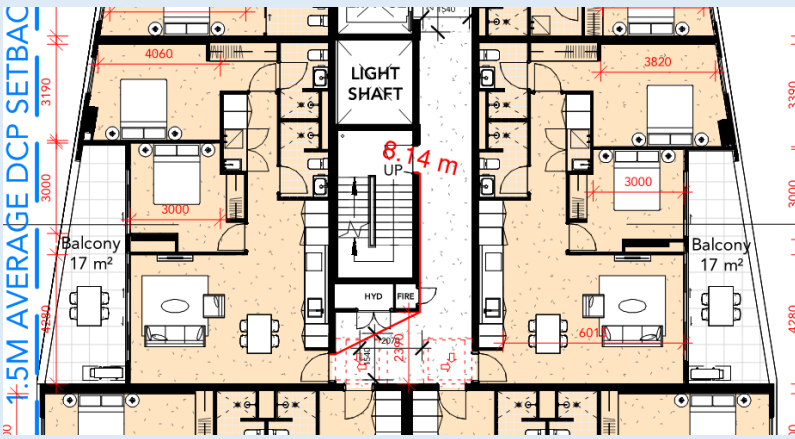
NSW D2D3 Number of exits required [2019: D1.2]				X	<p>(1) All buildings — Every building must have at least one exit from each storey.</p> <p>(2) Class 2 to 8 buildings —</p> <p>(a) In addition to any horizontal exit, not less than 2 exits must be provided from the following:</p> <p>(i) Each storey if the building has an effective height of more than 25 m.</p> <p>(b) The requirements of (a)(i) do not apply to a part of a storey that—</p> <p>(i) is provided with direct egress to a road or open space; and</p> <p>(ii) satisfies D2D5 by the provision of 1 exit.</p> <p>(3) Basements — In addition to any horizontal exit, not less than 2 exits must be provided from any storey if egress from that storey involves a vertical rise within the building of more than 1.5 m.</p> <p>(7) Access to exits — Without passing through another sole-occupancy unit every occupant of a storey or part of a storey must have access to—</p> <p>(a) an exit; or</p> <p>(b) at least 2 exits if 2 or more exits are required.</p> <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> The occupants on Level 6 & 7 of Building B only have access to one (1) exit, which does not comply with part (2) of this clause.
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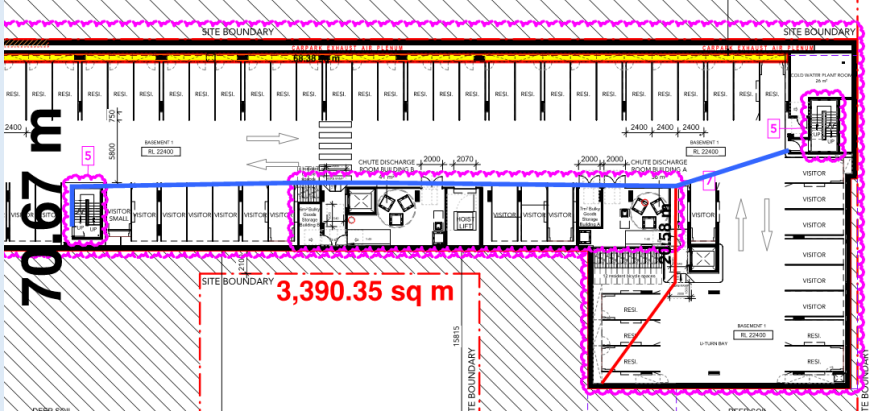
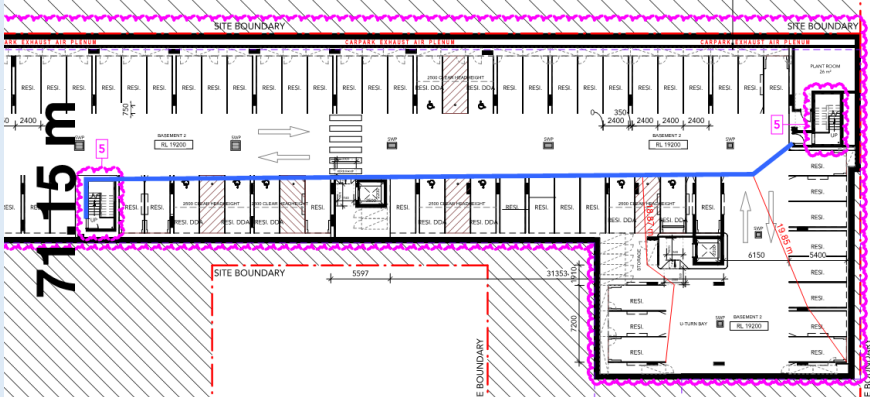
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					 <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D2D4</p> <p>When fire-isolated stairways and ramps are required</p> <p>[2019: D1.3]</p>				X	<p>(1) Class 2 and 3 buildings — The following applies:</p> <p>(a) Subject to (b), every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than—</p> <ul style="list-style-type: none"> (i) 3 consecutive storeys in a Class 2 building; or (ii) 2 consecutive storeys in a Class 3 building. <p>(b) Notwithstanding (a), one extra storey of any classification may be included if—</p> <ul style="list-style-type: none"> (i) it is only for the accommodation of motor vehicles or for other ancillary purposes; or (ii) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (iii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having— <ul style="list-style-type: none"> (A) an FRL of –/60/60, if non-loadbearing; and (B) an FRL of 90/90/90, if loadbearing; and (C) no opening that could permit the passage of fire or smoke. <p>(2) Class 7 buildings — Every stairway or ramp serving as a required exit must be fire-isolated unless—</p> <p>(c) it connects, passes through or passes by not more than 2 consecutive storeys and one extra storey of any classification may be included if—</p> <ul style="list-style-type: none"> (i) the building has a sprinkler system (other than a FPAA101D system) complying with Specification 17 installed throughout; or (ii) the required exit does not provide access to or egress for, and is separated from, the extra storey by construction having— <ul style="list-style-type: none"> (A) an FRL of –/60/60, if non-loadbearing; and

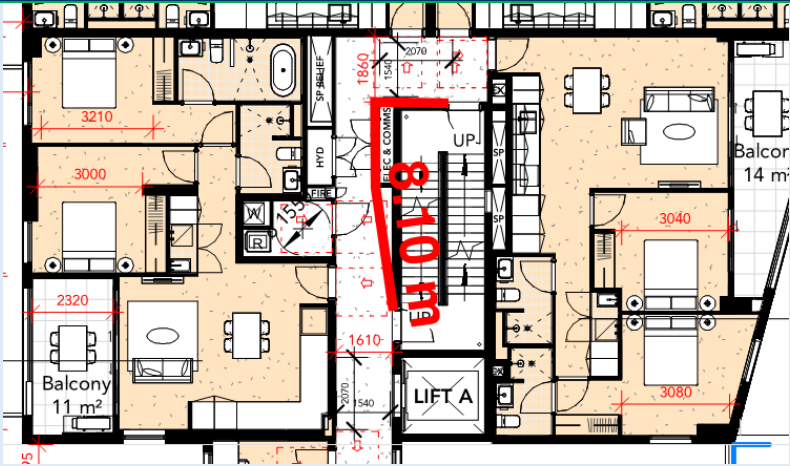
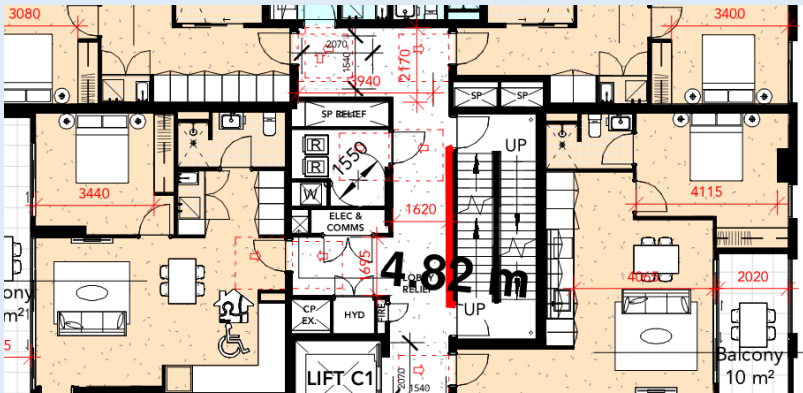
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(B) an FRL of 90/90/90 for Type A construction; and</p> <p>(C) no opening that could permit the passage of fire or smoke.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop FRL plans detailing the FRL's provided to fire-isolated stairways. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D5 Exit travel distances [2019: D1.4]		X			<p>(1) Class 2 and 3 buildings —</p> <p>(a) The entrance doorway of any sole-occupancy unit must be not more than—</p> <p>(i) 6 m from an exit or from a point from which travel in different directions to 2 exits is available; or</p> <p>(ii) 20 m from a single exit serving the storey at the level of egress to a road or open space; and</p> <p>(b) no point on the floor of a room which is not in a sole-occupancy unit must be more than 20 m from an exit or from a point at which travel in different directions to 2 exits is available.</p> <p>(3) Class 7 buildings —</p> <p>(a) no point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m; and</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> The travel distance from the south-western end of basement 2 exceeds 20 m to a point of choice (measured 31.3 m worst case), which does not comply with part (3)(a) of this clause. <p>Note for Eloura: Measurement has been updated as previously the travel distance was measured through a storage cage. Minor increase in distance to 31.3 m, fire engineers to ensure this is captured in the revised FEBQ.</p> 

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> The travel distance from the south-eastern end of basement 1 exceeds 20 m to a point of choice (measured 20.6 m worst case), which does not comply with part (3)(a) of this clause. <p>Note for Eloura: Measurement updated per new basement layout. Fire engineer to ensure revised measurements are incorporated into the FEBQ.</p>  <p>Performance Solution Proposed</p> <p>Note: Buildings A, B and C are a united building and are all considered to be over 25 m in effective height.</p> <ul style="list-style-type: none"> The travel distance from the SOU doorway located eastern end of Building B, on Levels 2-4, are more than 6 m from a point of choice (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause.  <ul style="list-style-type: none"> The travel distance from the SOU doorway located eastern end of Building B, on Level 5 is more than 6 m from a point of choice (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<div data-bbox="639 293 1485 819"> </div> <ul style="list-style-type: none"> The travel distance from the SOU doorway located eastern end of Building B, on Levels 6 & 7 is more than 6 m from an exit (measured 6.5 m) which does not comply with part (1)(a)(i) of this clause. <div data-bbox="667 965 1458 1469"> </div> <ul style="list-style-type: none"> The travel distance from the SOU doorways (4 units total on each storey) located southern end of Building C, on Levels 2-4, are more than 6 m from a point of choice (measured 8.2 m worst case) which does not comply with part (1)(a)(i) of this clause.

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					 <ul style="list-style-type: none"> The travel distance from the SOU doorways (4 units total on each storey) located southern end of Building C, on Levels 5, 6 & 7 are more than 6 m from a point of choice (measured 8.4 m worst case) which does not comply with part (1)(a)(i) of this clause.  <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D6 Distance between alternative exits [2019: D1.5]		X			<p>Exits that are required as alternative means of egress must be—</p> <ul style="list-style-type: none"> (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than— <ul style="list-style-type: none"> (i) in a Class 2 or 3 building — 45 m apart; or (ii) in a Class 9a health-care building, if such required exit serves a patient care area — 45 m apart; or (iii) in all other cases — 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6m apart. <p>Compliance commentary</p> <ul style="list-style-type: none"> The travel distance between alternative exits when measured through the point of choice at the south-eastern end of Basement

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>1 exceeds 60 m (measured 70.7 m), which does not comply with part (c) of this clause.</p> <p>Note 1: This measurement has been taken through the extended travel distance to a point of choice identified under D2D5.</p> <p>Note for Eloura: Measurement updated per new basement layout. Fire engineer to ensure revised measurements are incorporated into the FEBQ.</p>  <ul style="list-style-type: none"> The travel distance between alternative exits when measured through the point of choice at the south-eastern end of Basement 2 exceeds 60 m (measured 71.2 m), which does not comply with part (c) of this clause. <p>Note for Eloura: Measurement updated per new basement layout. Fire engineer to ensure revised measurements are incorporated into the FEBQ.</p>  <ul style="list-style-type: none"> The distance between alternative exits in Building A, between Levels 1 – 7 is less than 9 m (measured 8.1 m) and does not comply with part (b) of this clause. <p>Note for Eloura: Measurement updated per new layout noting inclusion of electrical and comms cupboards on the wall of the fire stair. Fire engineer to ensure revised measurements are incorporated into the FEBQ.</p>

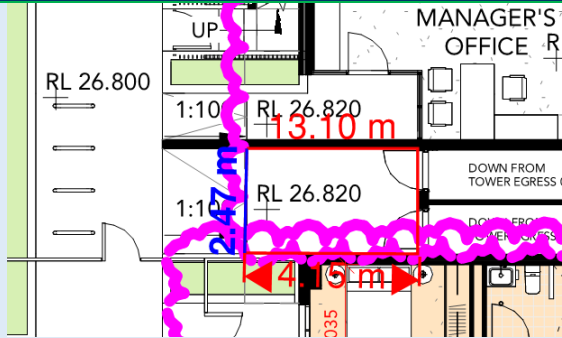

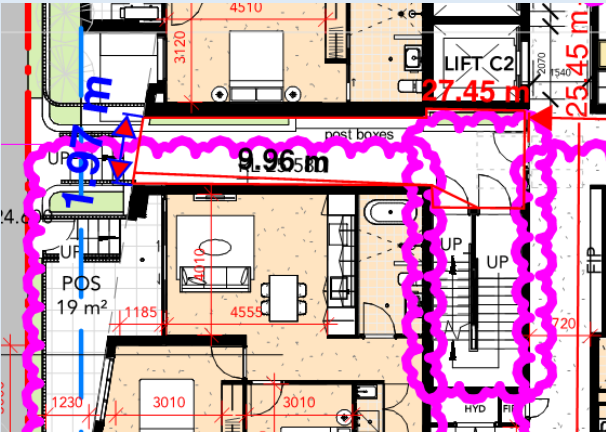
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					 <ul style="list-style-type: none"> The distance between alternative exits in Building C, between Levels 2 – 10 is less than 9 m (measured 4.8 m) and does not comply with part (b) of this clause. <p>Note for Eloura: Measurement updated per new layout. Fire engineer to ensure revised measurements are incorporated into the FEBQ, noting that the FEBQ currently requires 5 m minimum between exits for this stair.</p>  <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D2D7 Height of doorways in exits and paths of travel to exits [2019: D1.6(a)]				X	<p>In a required exit or path of travel to an exit the unobstructed height throughout must be not less than 2 m, except the unobstructed height of any doorway may be reduced to not less than 1980 mm.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW D2D8 Width of exits and paths of travel to exits [2019: D1.6(b), (c), (d) and (e)]				X	<p>(1) The unobstructed width of each required exit or path of travel to an exit, except for ladders provided in accordance with D2D21, D3D23 or I3D5, and doorways, must be not less than—</p> <p>(a) 1 m.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW D2D9 Width of doorways in exits or paths of travel to exits				X	<p>In a required exit or path of travel to an exit, the unobstructed width of a doorway must be not less than—</p> <p>(c) the unobstructed width of each exit provided to comply with D2D8(1), (2), (3) or (4), minus 250 mm; or</p>

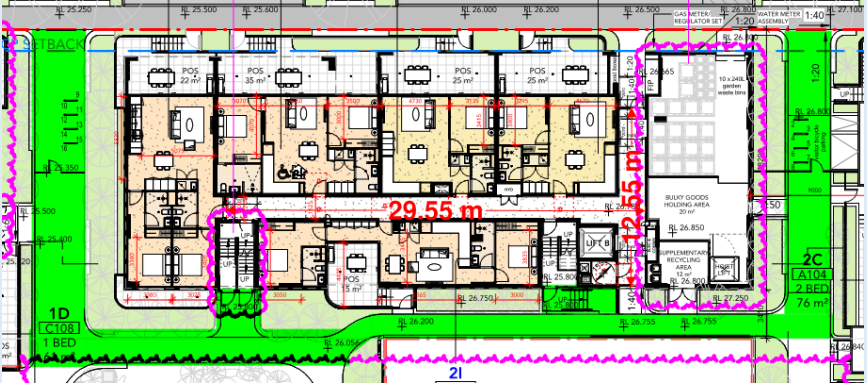
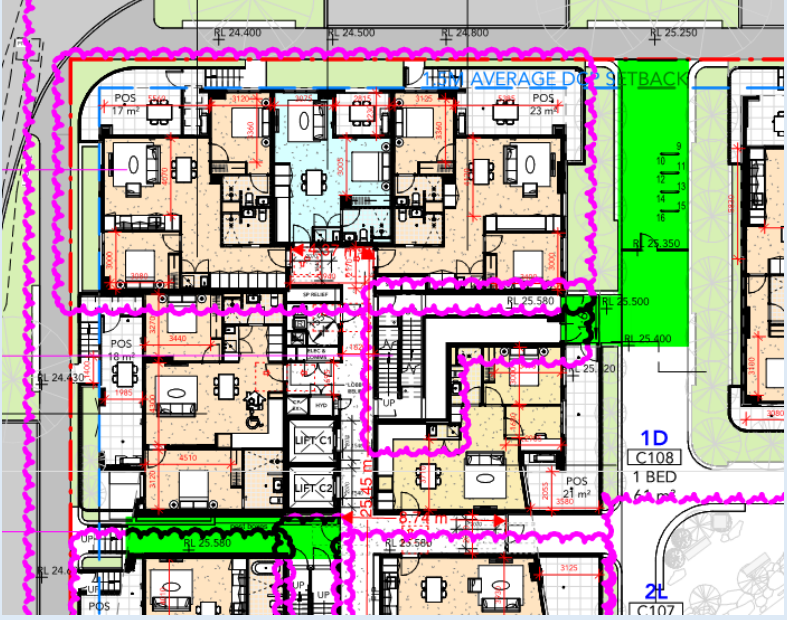


BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: D1.6, NSW D1.6(f)(vi)]					(f) in any other case except where it opens to a sanitary compartment or bathroom — 750 mm wide. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D2D10 Exit width not to diminish in direction of travel [2019: D1.6(g)]				X	The unobstructed width of a required exit must not diminish in the direction of travel to a road or open space, except where the width is increased in accordance with D2D8(1)(b) or D2D9(a)(i). Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
D2D11 Determination and measurement of exits and paths of travel to exits [2019: D1.6(h) and (i)]			X		For the purposes of D2D7 to D2D10 the following apply: (a) The required width of a stairway or ramp in a required exit or path of travel to an exit must— (i) be measured clear of all obstructions such as handrails projecting parts of barriers and the like; and (ii) extend without interruption, except for ceiling cornices, to a height not less than 2m vertically above a line along the nosings of the treads or the floor surface of the ramp or landing.
D2D12 Travel via fire-isolated exits [2019: D1.7]		X			(1) A doorway from a room must not open directly into a stairway, passageway or ramp that is required to be fire-isolated unless it is from— (a) a public corridor, public lobby or the like; or (b) a sole-occupancy unit occupying all of a storey; or (c) a sanitary compartment, airlock or the like. (2) Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway— (a) to a road or open space; or (b) to a point— (i) in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least 2/3 of its perimeter; and (ii) from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or (c) into a covered area that— (i) adjoins a road or open space; and (ii) is open for at least 1/3 of its perimeter; and (iii) has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and (iv) provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m. (3) Where a path of travel from the point of discharge of a fire-isolated exit necessitates passing within 6 m of any part of an external wall of the same building, measured horizontally at right angles to the path of travel, the following applies: (a) That part of the wall must have— (i) an FRL of not less than 60/60/60; and (ii) any openings protected internally in accordance with C4D5; and



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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<div data-bbox="778 286 1342 622">  </div> <ul style="list-style-type: none"> The fire-isolated stairways discharging on Level 1 from Building C discharge into a covered space— <ul style="list-style-type: none"> That is not open for at least 1/3 of its perimeter (measured 7.2% open); and That does not have an unobstructed clear height throughout of not less than 3 m (measured 2.86 m); and That does not have an unimpeded path to open space of not more than 6 m (measured 10 m), which does not comply with part (2)(c) of this clause. <p>Note for Eloura: Measurement updated per new basement layout. Fire engineer to ensure revised measurements are incorporated into the FEBQ.</p> <div data-bbox="758 1064 1366 1473">  </div> <div data-bbox="758 1487 1366 1917">  </div> <div data-bbox="619 1928 1037 1964" data-label="Section-Header"> <h4>Performance Solution Proposed</h4> </div> <ul style="list-style-type: none"> The path of travel from the discharge point(s) of the fire-isolated stairways serving Building B necessitate passing within 6 m of

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>external walls of the same building and require protection in accordance with part (3) of this clause. Architect to demonstrate compliance with this clause.</p>  <ul style="list-style-type: none"> The path of travel from the discharge point(s) of the fire-isolated stairways serving Building C necessitate passing within 6 m of external walls of the same building and require protection in accordance with part (3) of this clause. Architect to demonstrate compliance with this clause.  <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW D2D15 Discharge from exits [2019: D1.10]				X	<p>(1) An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.</p> <p>(2) If a required exit leads to an open space, the path of travel to the road must have an unobstructed width throughout of not less than—</p> <ul style="list-style-type: none"> (a) the minimum width of the required exit; or (b) 1 m, <p>whichever is the greater.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(3) If an exit discharges to open space that is at a different level than the public road to which it is connected, the path of travel to the road must be by—</p> <ul style="list-style-type: none"> (a) a ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed-to-Satisfy Provisions of Part D4; or (b) a stairway complying with the Deemed-to-Satisfy Provisions of the BCA. <p>(4) The discharge point of alternative exits must be located as far apart as practical.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>D2D21</p> <p>Plant rooms, lift machine rooms and electricity network substations: Concession [2019: D1.16]</p>				X	<p>(1) A ladder may be used in lieu of a stairway to provide egress from—</p> <ul style="list-style-type: none"> (a) a plant room with a floor area of not more than 100 m²; or (b) all but one point of egress from a plant room, a lift machine room or a Class 8 electricity network substation with a floor area of not more than 200 m². <p>(2) A ladder permitted under (1)—</p> <ul style="list-style-type: none"> (a) may— <ul style="list-style-type: none"> (i) form part of an exit provided that in the case of a fire-isolated stairway it is contained within the shaft; or (ii) discharge within a storey in which case it must be considered as forming part of the path of travel; and (c) for a lift machine room, where access is provided from within a machine room to a secondary floor, a fixed rung type ladder complying with AS 1657 may be used, provided that— <ul style="list-style-type: none"> (i) the height between the floors is not more than 2800 mm; and (ii) the ladder is inclined at an angle to the horizontal not less than 65 degrees nor more than 75 degrees; and (iii) the distance between the front face of the ladder and any adjacent obstruction is not less than— <ul style="list-style-type: none"> (A) 960 mm, where the ladder is inclined 65 degrees to the horizontal; or (B) 760 mm, where the ladder is inclined 75 degrees to the horizontal; or (C) a distance that is determined by interpolating the values in (A) and (B), where the ladder is inclined at any angle between 65 degrees and 75 degrees to the horizontal; and (iv) a clear space not less than 600 mm exists between the foot of the ladder and any equipment. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>D2D22</p> <p>Access to lift pits [2019: D1.17]</p>				X	<p>Access to lift pits must—</p> <ul style="list-style-type: none"> (a) where the pit depth is not more than 3 m, be through the lowest landing doors; or (b) where the pit depth is more than 3 m, be provided through an access doorway complying with the following:





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(i) In lieu of D2D7 to D2D11, the doorway must be level with the pit floor and not be less than 600 mm wide by 1980 mm high clear opening, which may be reduced to 1500 mm where it is necessary to comply with (ii).</p> <p>(ii) No part of the lift car or platform must encroach on the pit doorway entrance when the car is on a fully compressed buffer.</p> <p>(iii) Access to the doorway must be by a stairway complying with AS 1657.</p> <p>(iv) In lieu of D3D26, doors fitted to the doorway must be—</p> <p>(A) of the horizontal sliding or outwards opening hinged type; and</p> <p>(B) self-closing and self-locking from the outside; and</p> <p>(C) marked on the landing side with the letters not less than 35 mm high:</p> <p>DANGER LIFTWELL – ENTRY OF UNAUTHORIZED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>

Part D3 Construction of exits

D3D3 Fire-isolated stairways and ramps [2019: D2.2]				X	<p>A stairway or ramp (including any landings) that is required to be within a fire-resisting shaft must be constructed—</p> <p>(a) of non-combustible materials; and</p> <p>(b) so that if there is local failure it will not cause structural damage to, or impair the fire-resistance of, the shaft.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans, Structural Engineering Plans & specification</i></p>
D3D4 Non-fire-isolated stairways and ramps [2019: D2.3]				X	<p>In a building having a rise in storeys of more than 2, required stairs and ramps (including landings and any supporting building elements) which are not required to be within a fire-resisting shaft, must be constructed according to D3D3, or only of—</p> <p>(a) reinforced or prestressed concrete; or</p> <p>(b) steel in no part less than 6 mm thick; or</p> <p>(c) timber that—</p> <p>(i) has a finished thickness of not less than 44 mm; and</p> <p>(ii) has an average density of not less than 800 kg/m³ at a moisture content of 12%; and</p> <p>(iii) has not been joined by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D5 Separation of rising and descending stair flights				X	<p>If a stairway serving as an exit is required to be fire-isolated—</p> <p>(a) there must be no direct connection between—</p> <p>(i) a flight rising from a storey below the lowest level of access to a road or open space; and</p> <p>(ii) a flight descending from a storey above that level; and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: D2.4]					<p>(b) any construction that separates or is common to the rising and descending flights must be—</p> <p>(i) non-combustible; and</p> <p>(ii) smoke proof in accordance with S11C2</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D6 Open access ramps and balconies [2019: D2.5]			X		<p>Where an open access ramp or balcony is provided to meet the smoke hazard management requirements of E2D4 to E2D13, it must—</p> <p>(a) have ventilation openings to the outside air which—</p> <p>(i) have a total unobstructed area not less than the floor area of the ramp or balcony; and</p> <p>(ii) are evenly distributed along the open sides of the ramp or balcony; and</p> <p>(b) not be enclosed on its open sides above a height of 1 m except by an open grille or the like having a free air space of not less than 75% of its area.</p>
D3D7 Smoke lobbies [2019: D2.6]			X		<p>A smoke lobby required by D2D12 must—</p> <p>(a) have a floor area not less than 6 m²; and</p> <p>(b) be separated from the occupied areas in the storey by walls which are impervious to smoke, and—</p> <p>(i) have an FRL of not less than 60/60/– (which may be fire-protective grade plasterboard, gypsum block with set plaster, face brickwork, glass blocks or glazing); and</p> <p>(ii) extend from slab to slab, or to the underside of a ceiling with a resistance to the incipient spread of fire of 60 minutes which covers the lobby; and</p> <p>(iii) any construction joints between the top of the walls and the floor slab, roof or ceiling must be smoke sealed with intumescent putty or other suitable material; and</p> <p>(c) at any opening from the occupied areas, have smoke doors complying with S12C3 and S12C4 except that the smoke sensing device need only be located on the approach side of the opening; and</p> <p>(d) be pressurised as part of the exit if the exit is required to be pressurised under E2D3.</p>
D3D8 Installations in exits and paths of travel [2019: D2.7]				X	<p>(1) Access to service shafts and services other than to fire-fighting or detection equipment as permitted in the Deemed-to-Satisfy Provisions of Section E, must not be provided from a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp.</p> <p>(2) An opening to any chute or duct intended to convey hot products of combustion from a boiler, incinerator, fireplace or the like, must not be located in any part of a required exit or any corridor, hallway, lobby or the like leading to a required exit.</p> <p>(3) Gas or other fuel services must not be installed in a required exit.</p> <p>(4) Except for in a fire-isolated exit specified in (1), services or equipment enclosed in accordance with (5) may be installed in a required exit, or in any corridor, hallway, lobby or the like leading to a required exit, where that service or equipment comprises—</p> <p>(a) electricity meters, distribution boards or ducts; or</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) central telecommunications distribution boards or equipment; or</p> <p>(c) electrical motors or other motors serving equipment in the building.</p> <p>(5) An enclosure for the purposes of (4) must be suitably sealed against smoke spreading from the enclosure and be—</p> <p>(a) non-combustible construction; or</p> <p>(b) a fire-protective covering.</p> <p>(6) Electrical wiring may be installed in a fire-isolated exit if the wiring is associated with—</p> <p>(a) a lighting, detection, or pressurisation system serving the exit; or</p> <p>(b) a security, surveillance or management system serving the exit; or</p> <p>(c) an intercommunication system or an audible or visual alarm system in accordance with D3D27; or</p> <p>(d) the monitoring of hydrant or sprinkler isolating valves.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Architect to develop plans demonstrating compliance with parts (4) and (5) of this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D9 Enclosure of space under stairs and ramps [2019: D2.8]				X	<p>(1) Fire-isolated stairways and ramps — If the space below a required fire-isolated stairway or fire-isolated ramp is within the fire-isolated shaft, it must not be enclosed to form a cupboard or similar enclosed space.</p> <p>(2) Non fire-isolated stairways and ramps — The space below a required non fire-isolated stairway (including an external stairway) or non fire-isolated ramp must not be enclosed to form a cupboard or other enclosed space unless—</p> <p>(a) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and</p> <p>(b) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D10 Width of required stairways and ramps [2019: D2.9]			X		<p>A required stairway or ramp that exceeds 2 m in width is counted as having a width of only 2 m unless it is divided by a handrail or barrier continuous between landings and each division has a width of not more than 2 m.</p>
D3D11 Pedestrian ramps [2019: D2.10]				X	<p>(2) A ramp serving as a required exit must—</p> <p>(a) where the ramp is also serving as an accessible ramp under Part D4, be in accordance with AS 1428.1; or</p> <p>(b) in any other case, have a gradient not steeper than 1:8.</p> <p>(3) The floor surface of a ramp must have a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D3D12 Fire-isolated passageways [2019: D2.11]				X	<p>(1) 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—</p> <p>(a) if the passageway discharges from a fire-isolated stairway or ramp — not less than that required for the stairway or ramp shaft; or</p> <p>(b) in any other case — not less than 60/60/60.</p> <p>(2) Notwithstanding (1)(b), the top construction of a fire-isolated passageway need not have an FRL if the walls of the fire-isolated passageway extend to the underside of—</p> <p>(a) a non-combustible roof covering; or</p> <p>(b) a ceiling having a resistance to the incipient spread of fire of not less than 60 minutes separating the roof space or ceiling space in all areas surrounding the passageway within the fire compartment.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D13 Roof as open space [2019: D2.12]				X	<p>If an exit discharges to a roof of a building, the roof must—</p> <p>(a) have an FRL of not less than 120/120/120; and</p> <p>(b) not have any roof lights or other openings within 3 m of the path of travel of persons using the exit to reach a road or open space.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
NSW D3D14 Goings and risers [2019: D2.13]				X	<p>(1) A stairway must have—</p> <p>(a) not more than 18 and not less than 2 risers in each flight; and</p> <p>(b) going (G), riser (R) and quantity (2R + G) in accordance with Table D3D14, except as permitted by (2) and (3); and</p> <p>(c) constant goings and risers throughout each flight, except as permitted by (2) and (3), and the dimensions of goings (G) and risers (R) in accordance with (1)(b) are considered constant if the variation between—</p> <p>(i) adjacent risers, or between adjacent goings, is no greater than 5 mm; and</p> <p>(ii) the largest and smallest riser within a flight, or the largest and smallest going within a flight, does not exceed 10 mm; and</p> <p>(d) risers which do not have any openings that would allow a 125 mm sphere to pass through between the treads; and</p> <p>(e) treads which have—</p> <p>(i) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or</p> <p>(ii) a nosing strip with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; and</p> <p>(f) treads of solid construction (not mesh or other perforated material) if the stairway is more than 10 m high or connects more than 3 storeys; and</p> <p>(h) in the case of a required stairway, no winders in lieu of a landing; and</p>



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					<p>(2) In the case of a non-required stairway—</p> <p>(a) the stairway must have—</p> <p>(i) not more than 3 winders in lieu of a quarter landing; and</p> <p>(ii) not more than 6 winders in lieu of a half landing; and</p> <p>(b) the going of all straight treads must be constant throughout the same flight and the dimensions of goings (G) is considered constant if the variation between—</p> <p>(i) adjacent goings, is no greater than 5 mm; and</p> <p>(ii) the largest and smallest going within a flight, does not exceed 10 mm; and</p> <p>(c) the going of all winders in lieu of a quarter or half landing may vary from the going of the straight treads within the same flight provided that the going of all such winders is constant.</p> <p>(3) Where a stairway discharges to a sloping public walkway or public road—</p> <p>(a) the riser (R) may be reduced to account for the slope of the walkway or road; and</p> <p>(b) the quantity (2R+G) may vary at that location.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D15 Landings [2019: D2.14]				X	<p>In a stairway—</p> <p>(a) landings having a maximum gradient of 1:50 may be used in any building to limit the number of risers in each flight and each landing must—</p> <p>(i) be not less than 750 mm long, and where this involves a change in direction, the length is measured 500 mm from the inside edge of the landing; and</p> <p>(ii) have—</p> <p>(A) a surface with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586; or</p> <p>(B) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D3D15 when tested in accordance with AS 4586, where the edge leads to a flight below; and</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
NSW D3D16 Thresholds [2019: D2.15, NSW D2.15(d), (e)]				X	<p>The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless—</p> <p>(c) in a building required to be accessible by Part D4, the doorway—</p> <p>(i) opens to a road or open space; and</p> <p>(ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or</p> <p>(e) In other cases—</p> <p>(i) the doorway opens to a road or open space, external stair landing or external balcony; and</p>



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					<p>(ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D17 Barriers to prevent falls [2019: D2.16(a), (b) and (c)]				X	<p>(1) A continuous barrier must be provided along the side of—</p> <ul style="list-style-type: none"> (a) a roof to which general access is provided; and (b) a stairway or ramp; and (c) a floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and (d) any delineated path of access to a building, if the trafficable surface is 1 m or more above the surface beneath. <p>(2) The requirements of (1) do not apply to—</p> <ul style="list-style-type: none"> (a) the perimeter of a stage, rigging loft, loading dock or the like; or (b) areas referred to in D3D23; or (c) a retaining wall unless the retaining wall forms part of, or is directly associated with a delineated path of access to a building from the road, or a delineated path of access between buildings; or (d) a barrier provided to an openable window covered by D3D29. <p>(3) A barrier required by (1) must be constructed in accordance with D3D18, D3D19, D3D20 and, if a wire barrier is used, D3D21.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
NSW D3D18 Height of barriers [2019: Table D2.16a]				X	<p>(1) The height of a barrier required by D3D17 must be not less than the following:</p> <ul style="list-style-type: none"> (a) For stairways or ramps with a gradient of 1:20 or steeper — 865 mm. (b) For landings to a stair or ramp where the barrier is provided along the inside edge of the landing and does not exceed 500 mm in length — 865 mm. (e) For all other locations — 1m. <p>(2) For a barrier provided under (1) —</p> <ul style="list-style-type: none"> (a) barrier heights are measured vertically from the surface beneath, except that for stairways the height must be measured above the nosing line of the stair treads; and (b) a transition zone may be incorporated where the barrier height changes from 865 mm on a stair flight or ramp to 1 m at a landing or floor. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D19 Openings in barriers [2019: Table D2.16a]				X	<p>(1) Except where allowed by (2), openings in a required barrier must not allow a 125 mm sphere to pass through.</p> <p>(2) In a fire-isolated stairway, fire-isolated ramp or other area used primarily for emergency purposes, openings in a required barrier—</p> <ul style="list-style-type: none"> (a) must not allow a 300 mm sphere to pass through; or (b) where rails are used—





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(i) a 150 mm sphere must not be able to pass through the opening between the nosing line of the stair treads and the rail or between the rail and the floor of the landing, balcony or the like; and</p> <p>(ii) the opening between rails must not be more than 460 mm.</p> <p>(3) In Class 7 (other than carparks) and Class 8 buildings, openings in a required barrier—</p> <p>(a) must not allow a 300 mm sphere to pass through; or</p> <p>(b) where rails are used—</p> <p>(i) a 150 mm sphere must not be able to pass through the opening between the nosing line of the stair treads and the rail or between the rail and the floor of the landing, balcony or the like; and</p> <p>(ii) the opening between the rails must not be more than 460mm.</p> <p>(5) For a barrier provided under (1), the maximum 125 mm barrier opening for a stairway, such as a non fire-isolated stairway, is measured above the nosing line of the stair treads.</p> <p>(6) Where a required barrier is fixed to the vertical face forming an edge of a landing, balcony, deck, stairway or the like, the opening formed between the barrier and the face must not exceed 40 mm.</p> <p>(7) For the purposes of (6), the opening is measured horizontally from the edge of the trafficable surface to the nearest internal face of the barrier.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D20 Barrier climbability [2019: Table D2.16a]				X	<p>(1) A barrier required by D3D17, located on a floor more than 4 m above the surface beneath, must not incorporate horizontal or near horizontal elements that could facilitate climbing between 150 mm and 760 mm above the floor.</p> <p>(2) The requirements of (1) do not apply to—</p> <p>(a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, other than—</p> <p>(i) external stairways; and</p> <p>(ii) external ramps; and</p> <p>(b) Class 7 (other than carparks) and Class 8 buildings.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D21 Wire barriers [2019: D2.16(d)]				X	<p>Where a required barrier is constructed of wire, it is deemed to meet the requirements of D3D19(1) if it is constructed in accordance with the following:</p> <p>(a) For horizontal wire systems—</p> <p>(i) when measured with a strain indicator, it must be in Accordance with the tension values in Table D3D21a; or</p> <p>(ii) must not exceed the maximum deflections in Table D3D21c.</p> <p>(b) For non-continuous vertical wire systems, when measured with a strain indicator, must be in accordance with the tension values in Table D3D21a (see Note 4).</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) For continuous vertical or continuous near vertical sloped wire systems—</p> <ul style="list-style-type: none"> (i) must have wires of no more than 2.5 mm diameter with a lay of 7×7 or 7×19 construction; and (ii) changes in direction at support rails must pass around a pulley block without causing permanent deformation to the wire; and (iii) must have supporting rails, constructed with a spacing of not more than 900 mm, of a material that does not allow deflection that would decrease the tension of the wire under load; and (iv) when the wire tension is measured with a strain indicator, it must be in accordance with the tension values in Table D3D21b and measured in the furthestmost span from the tensioning device. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D22 Handrails [2019: D2.17]				X	<p>(1) Except for handrails referred to in D3D23, and subject to (2), handrails must—</p> <ul style="list-style-type: none"> (a) be located along at least one side of the ramp or flight; and (b) be located along each side if the total width of the stairway or ramp is 2 m or more; and (d) in any other case, be fixed at a height of not less than 865 mm; and (e) be continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand- hold; and (f) in a required exit serving an area required to be accessible, be designed and constructed to comply with clause 12 of AS 1428.1, except that clause 12(d) does not apply to a handrail required by (1)(c)(ii). <p>(2) The height required by (1)(c) and (d) is measured above the nosings of stair treads and the floor surface of the ramp, landing or the like.</p> <p>(4) Handrails required to assist people with a disability must be provided in accordance with D4D4.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D3D23 Fixed platforms, walkways, stairways and ladders [2019: D2.18]				X	<p>A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail or barrier attached thereto may comply with AS 1657 in lieu of D3D14, D3D16, D3D17, D3D18, D3D19, D3D20, D3D21 and D3D22 if it only serves—</p> <ul style="list-style-type: none"> (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) 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. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
NSW D3D24 Doorways and doors [2019: D2.19]				X	<p>(2) A doorway serving as a required exit or forming part of a required exit—</p> <p>(a) must not be fitted with a revolving door; and</p> <p>(b) must not be fitted with a roller shutter or tilt-up door unless—</p> <p>(i) it serves a Class 6, 7 or 8 building or part with a floor area not more than 200 m²; and</p> <p>(ii) the doorway is the only required exit from the building or part; and</p> <p>(iii) it is held in the open position while the building or part is lawfully occupied; and</p> <p>(c) must not be fitted with a sliding door unless—</p> <p>(i) it leads directly to a road or open space; and</p> <p>(ii) the door is able to be opened manually under a force of not more than 110 N; and</p> <p>(d) if fitted with a door which is power-operated—</p> <p>(i) it must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source; and</p> <p>(ii) if it leads directly to a road or open space it must open automatically if there is a power failure to the door or on the activation of a fire or smoke alarm anywhere in the fire compartment served by the door; and</p> <p>(3) A power-operated door in a path of travel to a required exit, must be able to be opened manually under a force of not more than 110 N if there is a malfunction or failure of the power source.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D25 Swinging doors [2019: D2.20]		X			<p>(1) A swinging door in a required exit or forming part of a required exit—</p> <p>(a) must not encroach—</p> <p>(i) at any part of its swing by more than 500 mm on the required width (including any landings) of a required stairway, ramp or passageway if it is likely to impede the path of travel of the people already using the exit; and</p> <p>(ii) when fully open, by more than 100 mm on the required width of the required exit; and</p> <p>(b) must swing in the direction of egress unless—</p> <p>(i) it serves a building or part with a floor area not more than 200m², it is the only required exit from the building or part and it is fitted with a device for holding it in the open position; or</p> <p>(ii) it serves a sanitary compartment or airlock (in which case it may swing in either direction); and</p> <p>(c) must not otherwise impede the path or direction of egress.</p> <p>(2) The measurement of encroachment referred to in (1)(a) in each case is to include door handles or other furniture or attachments to the door.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
NSW D3D26 Operation of latch				X	<p>(1) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by—</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: D2.21]					<p>(a) a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D4—</p> <ul style="list-style-type: none"> (i) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and (ii) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35 mm and not more than 45 mm; or <p>(b) a single hand pushing action on a single device which is located between 900 mm and 1.2 m from the floor.</p> <p>(2) Where the latch operation device referred to in (1)(b) is not located on the door leaf itself—</p> <ul style="list-style-type: none"> (a) manual controls to power-operated doors must be at least 25 mm wide, proud of the surrounding surface and located— <ul style="list-style-type: none"> (i) not less than 500 mm from an internal corner; and (ii) for a hinged door, between 1 m and 2 m from the door leaf in any position; and (iii) for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position; and (b) braille and tactile signage complying with S15C3 and S15C6 must identify the latch operation device. <p>(3) The requirements of (1) and (2) do not apply to a door that—</p> <ul style="list-style-type: none"> (a) serves a vault, strong-room, sanitary compartment, or the like; or (b) serves only, or is within— <ul style="list-style-type: none"> (i) a sole-occupancy unit in a Class 2 building or a Class 4 part of a building; or (iv) a space which is otherwise inaccessible to persons at all times when the door is locked; or (c) complies with (4) and serves— <ul style="list-style-type: none"> (i) Australian Government Security Zones 4 or 5; or (ii) the secure parts of a bank, detention centre, mental health facility, early childhood centre or the like; or (d) is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system (other than a FPAA101D system) complying with Specification 17 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building, and is readily openable when unlocked; or . <p>(4) A door referred to in (3)(c) must be able to be immediately unlocked—</p> <ul style="list-style-type: none"> (a) by operating a fail-safe control switch, not contained within a protective enclosure, to actuate a device to unlock the door; or (b) by hand by a person or persons, specifically nominated by the owner, properly instructed as to the duties and responsibilities involved and available at all times when the building is lawfully occupied so that persons in the building or part may immediately escape if there is a fire. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D3D27 Re-entry from fire-isolated exits [2019: D2.22]				X	<p>(1) Doors of a fire-isolated exit must not be locked from the inside as follows:</p> <p>(d) In a fire-isolated exit serving any storey above an effective height of 25 m, throughout the exit.</p> <p>(2) The requirements of (1)(d) do not apply to a door fitted with a fail-safe device that automatically unlocks the door upon the activation of a fire alarm and—</p> <p>(a) on at least every fourth storey, the doors are not able to be locked and a sign is fixed on such doors stating that re-entry is available; or</p> <p>(b) an intercommunication system, or an audible or visual alarm system, operated from within the enclosure is provided near the doors and a sign is fixed adjacent to such doors explaining its purpose and method of operation.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
D3D28 Signs on doors [2019: D2.23]				X	<p>(1) A sign, to alert persons that the operation of certain doors must not be impaired, must be installed where it can readily be seen on, or adjacent to, in accordance with (2)—</p> <p>(a) a required—</p> <p>(i) fire door providing direct access to a fire-isolated exit, except a door providing direct egress from a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building; and</p> <p>(ii) smoke door; and</p> <p>(b) any door which is a—</p> <p>(i) fire door forming part of a horizontal exit; and</p> <p>(ii) smoke door that swings in both directions; and</p> <p>(iii) door leading from a fire isolated exit to a road or open space.</p> <p>(2) A sign required by (1)(a) must be fixed on the side of the door that faces a person seeking egress and, if the door is fitted with a device for holding it in the open position, either a sign must be fixed on the wall adjacent to the doorway, or signs must be fixed to both sides of the door.</p> <p>(3) A sign required by (1)(b) must be fixed on each side of the door.</p> <p>(4) A sign referred to in (1) must be in capital letters not less than 20 mm high in a colour contrasting with the background and state the following:</p> <p>(a) For an automatic door held open by an automatic hold-open device—</p> <p style="text-align: center;">FIRE SAFETY DOOR — DO NOT OBSTRUCT</p> <p>(a) For a self-closing door—</p> <p style="text-align: center;">FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN</p> <p>(a) For a door discharging from a fire-isolated exit—</p> <p style="text-align: center;">FIRE SAFETY DOOR — DO NOT OBSTRUCT</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
D3D29 Protection of openable windows [2019: D2.24]				X	<p>(1) A window opening must be provided with protection, if the floor below the window is 2 m or more above the surface beneath in—</p> <p>(a) a bedroom in a Class 2 or 3 building or Class 4 part of a building.</p> <p>(2) Where the lowest level of the window opening is less than 1.7 m above the floor, a window opening covered by (1) must comply with the following:</p> <p>(a) The openable portion of the window must be protected with—</p> <p>(i) a device capable of restricting the window opening; or</p> <p>(ii) a screen with secure fittings.</p> <p>(b) A device or screen required by (a) must—</p> <p>(i) not permit a 125 mm sphere to pass through the window opening or screen; and</p> <p>(ii) resist an outward horizontal action of 250 N against the—</p> <p>(A) window restrained by a device; or</p> <p>(B) screen protecting the opening; and</p> <p>(iii) have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden.</p> <p>(3) A barrier with a height not less than 865 mm above the floor is required to an openable window—</p> <p>(a) in addition to window protection, when a child resistant release mechanism is required by (2)(b)(iii); and</p> <p>(b) where the floor below the window is 4 m or more above the surface beneath if the window is not covered by (1).</p> <p>(4) A barrier covered by (3) except for (5) must not—</p> <p>(a) permit a 125 mm sphere to pass through it; and</p> <p>(b) have any horizontal or near horizontal elements between 150 mm and 760 mm above the floor that facilitate climbing.</p> <p>(5) A barrier required by (3) to an openable window in—</p> <p>(a) fire-isolated stairways, fire-isolated ramps and other areas used primarily for emergency purposes, excluding external stairways and external ramps; and</p> <p>(b) Class 7 (other than carparks) and Class 8 buildings and parts of buildings containing those classes, must not permit a 300 mm sphere to pass through it.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>

Part D4 Access for people with a disability

D4D2 General building access requirements [2019: D3.1, Table D3.1]				X	<p>(1) Buildings and parts of buildings must be accessible as required by this clause, unless exempted by D4D5.</p> <p>(4) For a Class 2 building, common areas are to be accessible as follows:</p> <p>(a) From a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.</p> <p>(b) To and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.</p>
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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) Where a ramp complying with AS 1428.1 or a passenger lift is installed—</p> <p>(i) to the entrance doorway of each sole-occupancy unit; and</p> <p>(ii) to and within rooms or spaces for use in common by the residents.</p> <p>(d) The requirements of (c) only apply where the space referred to in (c)(i) or (ii) is located on the levels served by the lift or ramp.</p> <p>(6) For Class 5, 6, 7b, 8 and 9a buildings, access must be provided to and within all areas normally used by the occupants.</p> <p>(7) For a Class 7a building, access must be provided to and within any level containing accessible carparking spaces.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Access Consultant to assess plans and prepare a report demonstrating compliance. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D4D3 Access to buildings [2019: D3.2]				X	<p>(1) An accessway must be provided to a building required to be accessible—</p> <p>(a) from the main points of a pedestrian entry at the allotment boundary; and</p> <p>(b) from another accessible building connected by a pedestrian link; and</p> <p>(c) from any required accessible carparking space on the allotment.</p> <p>(2) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and—</p> <p>(a) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and</p> <p>(b) in a building with a total floor area more than 500 m², a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance, except for pedestrian entrances serving only areas exempted by D4D5.</p> <p>(3) Where a pedestrian entrance required to be accessible has multiple doorways—</p> <p>(a) if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and</p> <p>(b) if a pedestrian entrance consists of more than 3 doorways — not less than 50% of those doorways must be accessible.</p> <p>(4) For the purposes of (3)—</p> <p>(a) an accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where—</p> <p>(i) all doorways serve the same part or parts of the building; and</p> <p>(ii) the distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D4D3); and</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(b) a doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D4D3).</p> <p>(5) Where a doorway on an accessway has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D4D4</p> <p>Parts of buildings to be accessible</p> <p>[2019: D3.3]</p>				X	<p>In a building required to be accessible—</p> <p>(a) every ramp and stairway, except for ramps and stairways in areas exempted by D4D5, must comply with—</p> <p>(i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and</p> <p>(ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and</p> <p>(iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and</p> <p>(b) every passenger lift must comply with E3D7; and</p> <p>(c) accessways must have—</p> <p>(i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and</p> <p>(ii) turning spaces complying with AS 1428.1—</p> <p>(A) within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and</p> <p>(B) at maximum 20 m intervals along the accessway; and</p> <p>(d) an intersection of accessways satisfies the spatial requirements for a passing and turning space; and</p> <p>(e) a passing space may serve as a turning space; and</p> <p>(f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building—</p> <p>(i) containing not more than 3 storeys; and</p> <p>(ii) with a floor area for each storey, excluding the entrance storey, of not more than 200 m² and</p> <p>(g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and</p> <p>(h) the carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>D4D5</p> <p>Exemptions</p> <p>[2019: D3.4]</p>			X		<p>The following areas are not required to be accessible:</p> <p>(a) An area where access would be inappropriate because of the particular purpose for which the area is used.</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) An area that would pose a health or safety risk for people with a disability.</p> <p>(c) Any path of travel providing access only to an area exempted by (a) or (b).</p>
D4D7 Signage [2019: D3.6]				X	<p>(1) In a building required to be accessible—</p> <p>(a) braille and tactile signage complying with Specification 15 must—</p> <ul style="list-style-type: none"> (i) incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 and identify each— <ul style="list-style-type: none"> (A) sanitary facility, except a sanitary facility associated with a bedroom in a Class 1b building or a sole-occupancy unit in a Class 3 or Class 9c building; and (B) space with a hearing augmentation system; and (ii) identify each door required by E4D5 to be provided with an exit sign and state— <ul style="list-style-type: none"> (A) “Exit”; and (B) “Level”; and (C) the floor level number or floor level descriptor, or a combination of the two. <p>(b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—</p> <ul style="list-style-type: none"> (i) the type of hearing augmentation; and (ii) the area covered within the room; and (iii) if receivers are being used and where the receivers can be obtained; and <p>(c) signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right handed use; and</p> <p>(d) signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and</p> <p>(e) where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1, must be provided to direct a person to the location of the nearest accessible pedestrian entrance; and</p> <p>(f) where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex sanitary facility.</p> <p>(2) In a building that is subject F4D12 and is required to be accessible, directional signage complying with Specification 15 to direct a person to the location of the nearest accessible adult change facility within that building must be provided at the location of each—</p> <ul style="list-style-type: none"> (a) bank of sanitary facilities; and

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					<p>(b) accessible unisex sanitary facility, other than one that incorporates an accessible adult change facility.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D4D9 Tactile indicators [2019: D3.8]				X	<p>(1) For a building required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching—</p> <p>(a) a stairway, other than a fire-isolated stairway; and</p> <p>(b) an escalator; and</p> <p>(c) a passenger conveyor or moving walk; and</p> <p>(d) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and</p> <p>(e) in the absence of a suitable barrier—</p> <p>(i) an overhead obstruction less than 2 m above floor level, other than a doorway; and</p> <p>(ii) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point, except for areas exempted by D4D5.</p> <p>(2) Tactile ground surface indicators required by (1) must comply with sections 1 and 2 of AS/NZS 1428.4.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D4D12 Ramps [2019: D3.11]				X	<p>On an accessway—</p> <p>(a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and</p> <p>(b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
D4D13 Glazing on an accessway [2019: D3.12]				X	<p>On an accessway, where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway or opening, must be clearly marked in accordance with AS 1428.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

Section E Services and equipment

Part E1 Fire fighting equipment

E1D2 Fire hydrants [2019: E1.3]		X			<p>(1) A fire hydrant system must be provided to serve a building—</p> <p>(a) having a total floor area greater than 500 m²; and</p> <p>(b) where a fire brigade station is—</p> <p>(i) no more than 50 km from the building as measured along roads; and</p> <p>(ii) equipped with equipment capable of utilising a fire hydrant.</p> <p>(2) The fire hydrant system must be installed in accordance with AS 2419.1.</p>
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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(3) Notwithstanding (2), a Class 8 electricity network substation need not comply with clause 4.2 of AS 2419.1 if—</p> <p>(a) it cannot be connected to a town main supply; and</p> <p>(b) one hour water storage is provided for fire-fighting.</p> <p>(4) Where internal fire hydrants are provided, they must serve only the storey on which they are located except that a sole-occupancy unit—</p> <p>(a) in a Class 2 or 3 building or Class 4 part of a building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit; or</p> <p>(b) of not more than 2 storeys in a Class 5, 6, 7, 8 or 9 building may be served by a single fire hydrant located at the level of egress from that sole-occupancy unit provided the fire hydrant can provide coverage to the whole of the sole-occupancy unit.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> The hydrant booster assembly is required to be located not less than 3 m from the discharge outlet of a building exhaust system operating in fire mode, in accordance with Clause 7.3.3(f) of AS 2419.1-2021. Concerns are raised with respects to the exhaust from the pump room on lower ground, recommend this is reviewed by the fire systems designer and architect to ensure compliance is achieved. Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> The hydrant booster assembly is required to be within sight of the principal pedestrian entrance of the building in accordance with Clause 7.3.1 of AS 2419.1-2021. On the basis that there are multiple principal entrances this is a technical non-compliance and requires performance solution. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</p>
E1D3 Fire hose reels [2019: E1.4]				X	<p>(1) E1D3 does not apply to—</p> <p>(a) a Class 2, 3 or 5 building or Class 4 part of a building; or</p> <p>(2) A fire hose reel system must be provided—</p> <p>(a) to serve the whole building where one or more internal fire hydrants are installed; or</p> <p>(b) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m².</p> <p>(3) The fire hose reel system must—</p> <p>(a) have fire hose reels installed in accordance with AS 2441; and</p> <p>(b) provide fire hose reels to serve only the storey at which they are located, except a sole-occupancy unit of not more than 2 storeys in a Class 6, 7, 8 or 9 building may be served by a single fire hose reel located at the level of egress from that sole-occupancy unit provided the fire hose reel can provide coverage to the whole of the sole-occupancy unit.</p>

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					<p>(4) Fire hose reels must be located internally, externally or in combination, to achieve the system coverage specified in AS 2441.</p> <p>(5) In achieving system coverage, one or a combination of the following criteria for individual internally located fire hose reels must be met in determining the layout of any fire hose reel system:</p> <ul style="list-style-type: none"> (a) Fire hose reels must be located adjacent to an internal fire hydrant (other than one within a fire-isolated exit), except that a fire hose reel need not be located adjacent to every fire hydrant, provided system coverage can be achieved. (b) Fire hose reels must be located within 4 m of an exit, except that a fire hose reel need not be located adjacent to every exit, provided system coverage can be achieved. (c) Where system coverage is not achieved by compliance with (a) and (b), additional fire hose reels may be located in paths of travel to an exit to achieve the required coverage. <p>(6) Fire hose reels must be located so that the fire hose will not need to pass through doorways fitted with fire or smoke doors, except—</p> <ul style="list-style-type: none"> (a) doorways in walls referred to in C3D6(1)(e) in a Class 9a building and C3D6(5)(d) in a Class 9c building, separating ancillary use areas of high potential fire hazard; and (b) doorways in walls referred to in C3D13 or C3D14 separating equipment or electrical supply systems; and (c) doorway openings to shafts referred to in C4D14. <p>(7) Where the normal water supply cannot achieve the flow and pressures required by AS 2441, or is unreliable—</p> <ul style="list-style-type: none"> (a) a pump; or (b) water storage facility; or (c) both a pump and water storage facility must be installed to provide the minimum flow and pressures required by clause 6.1 of AS 2441. <p>Compliance commentary</p> <ul style="list-style-type: none"> • Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. • The location of the fire hose reels are required to be shown on the architectural plans in accordance AS 2441-2005 and this clause. Recommend this is reviewed by the fire systems designer and incorporated into the architectural plans. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</p>
E1D4 Sprinklers [2019: E1.5]		X			<p>A sprinkler system must—</p> <ul style="list-style-type: none"> (a) be installed in a building or part of a building when required by E1D5 to E1D13 as applicable; and (b) comply with Specification 17 and Specification 18 as applicable. <p>Compliance commentary</p> <ul style="list-style-type: none"> • The sprinkler booster assembly is required to be located not less than 3 m from the discharge outlet of a building exhaust system

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					<p>operating in fire mode, in accordance with Clause 4.14.4 of AS 2118.1-2017 and Clause 7.3.3(f) of AS 2419.1-2021. Concerns are raised with respects to the exhaust from the pump room on lower ground, recommend this is reviewed by the fire systems designer and architect to ensure compliance is achieved.</p> <p>Note: Clause 14.4.4 of AS 2118.1-2017 requires a sprinkler booster assembly to comply with AS 2419.1.</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> The sprinkler booster assembly is required to be within sight of the principal pedestrian entrance of the building in accordance with Clause 4.14.4 of AS 2118.1-2017 and Clause 7.3.1 of AS 2419.1-2021. On the basis that there are multiple principal entrances this is a technical non-compliance and requires performance solution. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Relevant fire safety systems are required to be designed and endorsed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021.</p>
E1D5 Where sprinklers are required: all classifications [2019: Table E1.5]				X	<p>Sprinklers are required throughout all buildings if any part of the building has an effective height of more than 25 m—</p> <p>(a) including an open-deck carpark within a multi-classified building; but</p> <p>(b) excluding—</p> <p>(i) an open-deck carpark being a separate building; and</p> <p>(ii) a Class 8 electricity network substation, with a floor area not more than 200 m² located within a multi- classified building.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> The proposed building is has an effective height greater than 25 m and requires a sprinkler system in accordance with this clause. Buildings A, B and C all form part of the same united building as they are located over the same common basement and therefore all capture an effective height of more than 25 m. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D9 Where sprinklers are required: Class 7a building, other than an open-deck carpark [2019: Table E1.5]				X	<p>In a Class 7a building, other than an open-deck carpark, sprinklers are required in fire compartments where more than 40 vehicles are accommodated.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D14 Portable fire extinguishers				X	<p>(1) Portable fire extinguishers must be—</p> <p>(a) provided as listed in (3) and (4); and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
[2019: E1.6 and Table E1.6]					<p>(b) for a Class 2, 3 or 5 building or Class 4 part of a building, provided—</p> <ul style="list-style-type: none"> (i) to serve the whole Class 2, 3 or 5 building or Class 4 part of a building where one or more internal fire hydrants are installed; or (ii) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500 m², and for the purposes of this clause, a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment; and <p>(c) subject to (2), selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444.</p> <p>(2) Portable fire extinguishers provided in a Class 2 or 3 building or Class 4 part of a building must be—</p> <ul style="list-style-type: none"> (a) an ABE type fire extinguisher; and (b) a minimum size of 2.5 kg; and (c) distributed outside a sole-occupancy unit— <ul style="list-style-type: none"> (i) to serve only the storey at which they are located; and (ii) so that the travel distance from the entrance doorway of any sole-occupancy unit to the nearest fire extinguisher is not more than 10 m. <p>(3) In Class 2 to 9 buildings (except within sole-occupancy units of a Class 9c building), portable fire extinguishers must be provided as follows:</p> <ul style="list-style-type: none"> (a) To cover Class AE or E fire risks associated with emergency services switchboards. (b) To cover Class F fire risks involving cooking oils and fats in kitchens. (c) To cover Class B fire risks in locations where flammable liquids in excess of 50 litres are stored or used (not including that held in fuel tanks of vehicles). (d) To cover Class A fire risks in normally occupied fire compartments less than 500 m² not provided with fire hose reels (excluding open-deck carparks). (e) To cover Class A fire risks in classrooms and associated corridors in primary and secondary schools not provided with fire hose reels. (f) To cover Class A fire risks associated with a Class 2, 3 or 5 building or Class 4 part of a building. <p>(5) For the purposes of (3) and (4):</p> <ul style="list-style-type: none"> (a) Fire risks are defined in accordance with AS 2444. (b) An emergency services switchboard is one which sustains emergency equipment operating in the emergency mode. (c) A Class E fire extinguisher need only be located at each nurses' station, supervisors' station or the like. (d) Additional extinguishers may be required to cover fire risks in relation to special hazards provided for in E1D17. (e) The fire risks in a Class 2 or 3 building or Class 4 part of a building must include risks within any sole-occupancy units, however portable fire extinguishers are not required to be located within a sole-occupancy unit unless the sole-occupancy unit has a floor area greater than 500 m².



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(6) For the purposes of (4), where applicable, a Class E fire extinguisher need only be located at each nurses' station, supervisors' station or the like.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D15 Fire control centres [2019: E1.8]				X	<p>A fire control centre facility in accordance with Specification 19 must be provided for—</p> <p>(a) a building with an effective height of more than 25 m; and</p> <p>(b) a Class 6, 7, 8 or 9 building with a total floor area of more than 18 000 m²</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E1D16 Fire precautions during construction [2019: E1.9]			X		<p>In a building under construction—</p> <p>(a) not less than one fire extinguisher to suit Class A, B and C fires and electrical fires must be provided at all times on each storey adjacent to each required exit or temporary stairway or exit; and</p> <p>(b) after the building has reached an effective height of 12 m—</p> <p>(i) the required fire hydrants and fire hose reels must be operational in at least every storey that is covered by the roof or the floor structure above, except the 2 uppermost storeys; and</p> <p>(ii) any required booster connections must be installed.</p>
E1D17 Provision for special hazards [2019: E1.10]				X	<p>Suitable additional provision must be made if special problems of fighting fire could arise because of—</p> <p>(a) the nature or quantity of materials stored, displayed or used in a building or on the allotment; or</p> <p>(b) the location of the building in relation to a water supply for fire-fighting purposes.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause. The Fire Engineering Report recognises the provision of EV charging stations

Part E2 Smoke hazard management

E2D3 General Requirements [2019: E2.2]				X	<p>(1) An air-handling system which does not form part of a smoke hazard management system in accordance with E2D4 to E2D20 and which recycles air from one fire compartment to another fire compartment or operates in a manner that may unduly contribute to the spread of smoke from one fire compartment to another fire compartment must, subject to (2), be designed and installed—</p> <p>(a) to operate as a smoke control system in accordance with AS 1668.1; or</p> <p>(b) such that it—</p> <p>(i) incorporates smoke dampers where the air-handling ducts penetrate any elements separating the fire compartments served; and</p> <p>(ii) is arranged such that the air-handling system is shut down and the smoke dampers are activated to close</p>
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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>automatically by smoke detectors complying with clause 7.5 of AS 1670.1.</p> <p>(2) For the purposes of (1), each sole-occupancy unit in a Class 2 or 3 building is treated as a separate fire compartment.</p> <p>(3) Miscellaneous air-handling systems covered by Sections 5 and 6 of AS 1668.1 serving more than one fire compartment (other than a carpark ventilation system) and not forming part of a smoke hazard management system must comply with these Sections of the Standard.</p> <p>(4) A smoke detection system must be installed in accordance with S20C6 to operate AS 1668.1 systems that are provided for zone pressurisation and automatic air pressurisation for fire-isolated exits.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E2D4 Fire-isolated exits [2019: Table E2.2a]				X	<p>(1) A part of a building listed in (2) must be provided with—</p> <p>(a) an automatic air pressurisation system for fire-isolated exits in accordance with AS 1668.1; or</p> <p>(b) open access ramps or balconies in accordance with D3D6.</p> <p>(2) The requirements of (1) apply to—</p> <p>(a) a required fire-isolated stairway, including any associated fire-isolated passageway or fire-isolated ramp serving—</p> <p>(i) any storey above an effective height of 25 m; or</p> <p>(ii) more than 2 below ground storeys, not counted in the rise in storeys in accordance with C2D3; or</p> <p>(b) a required fire-isolated passageway or fire-isolated ramp with a length of travel more than 60m to a road or open space.</p> <p>(3) An automatic air pressurisation system for a fire-isolated exit must serve the entire exit.</p> <p><u>Compliance commentary</u></p> <ul style="list-style-type: none"> The fire-isolated stairways serving Building C have been provided with provision for stair pressurisation in accordance with this clause. The fire-isolated stairways serving Building A have been provided with provision for stair pressurisation in accordance with this clause. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E2D5 Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building [2019: Table E2.2a]				X	<p>An automatic smoke detection and alarm system complying with Specification 20 must be provided to the following:</p> <p>(a) A Class 2 or 3 building which is more than 25 m in effective height.</p> <p><u>Compliance commentary</u></p> <ul style="list-style-type: none"> Architect to indicate the location of smoke alarms within SOU's so that compliance can be determined with Specification 20. Recommend that this is discussed with the fire systems designer. Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>

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E2D12 Class 7a buildings [2019: Table E2.2a]				X	A Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2, must comply with clause 5.5 of AS 1668.1. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E2D21 Provision for special hazards [2019: E2.3]			X		Additional smoke hazard management measures may be necessary due to the— (a) special characteristics of the building; or (b) special function or use of the building; or (c) special type or quantity of materials stored, displayed or used in a building; or (d) special mix of classifications within a building or fire compartment, which are not addressed in E2D4 to E2D20. <u>Compliance commentary</u> <ul style="list-style-type: none">Electric Vehicle (EV) charging stations are deemed to be a special hazard and will require assessment by a suitably qualified fire engineer against this clause. The Fire Engineering Report recognises the provision of EV charging stations.

Part E3 Lift Installations

E3D2 Lift installations [2019: E3.1]				X	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification 24. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3D3 Stretcher facility in lifts [2019: E3.2]				X	(1) A stretcher facility in accordance with (2) must be provided— (a) in at least one emergency lift required by E3D5. (2) A stretcher facility must accommodate a raised stretcher with a patient lying on it horizontally by providing a clear space not less than 600 mm wide x 2000 mm long x 1400 mm high above the floor level. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3D4 Warning against use of lifts in fire [2019: E3.3]				X	(1) A warning sign must be displayed where it can be readily seen near every call button for a passenger lift or group of lifts throughout a building. (2) The requirements of (1) do not apply to a small lift such as a dumb-waiter or the like that is for the transport of goods only. (3) Each warning sign required by (1) must comply with the details and dimensions of Figure E3D4 and consist of— (a) incised, inlaid or embossed letters on a metal, wood, plastic or similar plate securely and permanently attached to the wall; or (b) letters incised or inlaid directly into the surface of the material forming the wall. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
E3D5 Emergency lifts [2019: E3.4]				X	(1) At least one emergency lift complying with (4) must be installed in— (a) a building which has an effective height of more than 25 m; and (2) An emergency lift may be combined with a passenger lift and must serve those storeys served by the passenger lift so that all storeys of the

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					<p>building served by passenger lifts are served by at least one emergency lift.</p> <p>(3) Where two or more passenger lifts are installed and serve the same storeys—</p> <p>(a) at least two emergency lifts must be provided to serve those storeys; and</p> <p>(b) if located within different shafts, at least one emergency lift must be provided in each shaft.</p> <p>(4) An emergency lift must—</p> <p>(a) be contained within a fire-resisting shaft in accordance with C3D11.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Emergency lifts are required to be shown on the CC plans to comply with the requirements of this clause. Emergency lifts are required to serve Buildings A, B and C. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E3D6 Landings [2019: E3.5]				X	<p>Access and egress to and from lift well landings must comply with the Deemed-to-Satisfy Provisions of Parts D2, D3 and D4.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E3D7 Passenger lift types and their limitations [2019: E3.6, Table E3.6a, Table E3.6b]				X	<p>(1) In an accessible building, every passenger lift must be one of the following lift types, subject to the limitations (if any) of each lift type:</p> <p>(a) There are no limitations on the use of electric passenger lifts, electrohydraulic passenger lifts or inclined lifts.</p> <p>(b) Stairway platform lifts must not—</p> <p>(i) be used to serve a space in a building accommodating more than 100 persons calculated according to D2D18; or</p> <p>(ii) be used in a high traffic public use area such as a theatre, cinema, auditorium, transport interchange, shopping centre or the like; or</p> <p>(iii) be used where it is possible to install another type of passenger lift; or</p> <p>(iv) connect more than 2 storeys; or</p> <p>(v) where more than 1 stairway lift is installed, serve more than 2 consecutive storeys; or</p> <p>(vi) when in the folded position, encroach on the minimum width of a stairway required by D2D8 to D2D11.</p> <p>(c) A low-rise platform lift must not travel more than 1000 mm.</p> <p>(d) A low-rise, low-speed constant pressure lift must not—</p> <p>(i) for an enclosed type, travel more than 4 m; or</p> <p>(ii) for an unenclosed type, travel more than 2 m; or</p> <p>(iii) be used in a high traffic public use areas in buildings such as a theatre, cinema, auditorium, transport interchange, shopping complex or the like.</p> <p>(e) A small-sized, low-speed automatic lift must not travel more than 12 m.</p> <p>(2) A passenger lift referred to in (1) must not rely on a constant pressure device for its operation if the lift car is fully enclosed.</p>

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					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
E3D8 Accessible features required by passenger lifts [2019: Table E3.6a, Table E3.6b]				X	<p>In an accessible building, every passenger lift must have the following features where applicable:</p> <ul style="list-style-type: none"> (a) A handrail complying with the provisions for a mandatory handrail in AS 1735.12 for all lifts except— <ul style="list-style-type: none"> (i) a stairway platform lift; and (ii) a low-rise platform lift. (b) Lift floor dimensions of not less than 1400 mm wide x 1600 mm deep for all lifts which travel more than 12 m. (c) Lift floor dimensions of not less than 1100 mm wide x 1400 mm deep for all lifts which travel not more than 12 m, except a stairway platform lift. (d) Lift floor dimensions of not less than 810 mm wide x 1200 mm deep for a stairway platform lift. (e) Minimum clear door opening complying with AS 1735.12 for all lifts except a stairway platform lift (f) Passenger protection system complying with AS 1735.12 for all lifts with power-operated doors. (g) Lift landing doors at the upper landing for all lifts except a stairway platform lift. (h) Lift car and landing control buttons complying with AS 1735.12 for all lifts except— <ul style="list-style-type: none"> (i) a stairway platform lift; and (ii) a low-rise platform lift. (i) Lighting in accordance with AS 1735.12 for all enclosed lift cars. (j) For all lifts serving more than 2 levels— <ul style="list-style-type: none"> (i) automatic audible information within the lift car to identify the level each time the car stops; and (ii) audible and visual indication at each lift landing to indicate the arrival of the lift car; and (iii) audible information and audible indication required by (i) and (ii) is to be provided in a range of between 20 - 80 dB(A) at a maximum frequency of 1500 Hz. (k) Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received, for all lifts except a stairway platform lift. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E3D9 Fire service controls [2019: E3.7]				X	<p>Where lifts serve any storey above an effective height of 12 m, the following must be provided:</p> <ul style="list-style-type: none"> (a) A fire service recall control switch complying with E3D11 for— <ul style="list-style-type: none"> (i) a group of lifts; or (ii) a single lift not in a group that serves the storey. (b) A lift car fire service drive control switch complying with E3D12 for every lift. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>



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E3D11 Fire service recall control switch [2019: E3.9]				X	<p>(1) Each group of lifts must be provided with one fire service recall control switch required by E3D9 that activates the fire service recall operation at (6).</p> <p>(2) The switch required by (1) must—</p> <ul style="list-style-type: none"> (a) be located at the landing nominated by the appropriate authority; and (b) be labelled “FIRE SERVICE” in indelible white lettering on a red background; and (c) have two positions with an “OFF” and an “ON” position identified; and (d) be operable only by the use of a key that is removable in either the “OFF” position or the “ON” position. <p>(3) Adhesive labels must not be used for compliance with (2)(b) and (c).</p> <p>(4) The key in (2)(d) must be able to turn all fire service recall control switches in the building and must have a different key combination to other keys used for lifts in the building.</p> <p>(5) The fire service recall operation must be activated by—</p> <ul style="list-style-type: none"> (a) switching the fire service recall control switch in (1) to “ON”; or (b) a signal from a fire management system approved by the appropriate authority. <p>(6) The activation of the fire service recall operation at (5) must—</p> <ul style="list-style-type: none"> (a) cancel all registered car and landing calls; and (b) inactivate all door reopening devices that may be affected by smoke; and (c) ensure lift cars travelling toward the nominated floor continue to the nominated floor without stopping; and (d) ensure lift cars travelling away from the nominated floor stop at or before the next available floor without opening the doors (either automatically or by the door open button), reverse direction and travel without stopping to the nominated floor; and (e) for lifts stopped at a floor other than the nominated floor, close the doors and travel without stopping to the nominated floor; and (f) ensure that lifts stay at the nominated floor with doors open; and (g) permit all lifts to return to normal service if the fire service recall control switch at (1) is switched to the “OFF” position during or after the fire service recall operation. <p>(7) The requirements of (6) do not apply to lifts on inspection service or when the lift car fire service control switch required by E3D12 is in the “ON” position.</p> <p>(8) Lifts having manual controls must signal an alert to the lift for the lift to return to the nominated floor containing the recall switch that activated the signal.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
E3D12 Lift car fire service drive control switch [2019: E3.10]				X	<p>(1) The lift car fire service drive control switch required by E3D9 must be activated from within the lift car.</p> <p>(2) The switch must—</p> <ul style="list-style-type: none"> (a) be located between 600 mm and 1500 mm above the lift car floor; and



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					<p>(b) be labelled "FIRE SERVICE" by indelible white lettering on a red background; and</p> <p>(c) have two positions with an "OFF" and an "ON" position identified; and</p> <p>(d) operate only by the use of a key that is removable in either the "OFF" position or the "ON" position.</p> <p>(3) Adhesive labels must not be used for compliance with (2)(b) or (c).</p> <p>(4) When the lift car fire service drive control switch at (1) is turned to the "ON" position, the lift must—</p> <p>(a) not respond to the fire service recall control switch; and</p> <p>(b) cancel all registered lift car and landing calls; and</p> <p>(c) override all lift car call access control systems; and</p> <p>(d) inactivate all door reopening devices that may be affected by smoke; and</p> <p>(e) allow the registration of lift car call by lift car call buttons, however the lift doors must not close in response to the registration of lift car calls; and</p> <p>(f) activate door closing by constant pressure being applied on the "door close" button unless the button is released before the doors are fully closed, in which case the doors must reopen and any registered lift car calls must be cancelled; and</p> <p>(g) when the doors are closed, move the lift in response to registered lift car calls while allowing additional lift car calls to also be registered; and</p> <p>(h) travel to the first possible floor in response to registered lift car calls and cancel all registered lift car calls after the lift stops; and</p> <p>(i) ensure doors do not open automatically, rather by constant pressure being applied on the "door open" button unless the button is released before the doors are fully open, in which case the doors must re-close.</p> <p>(5) The requirements of (4)(a) to (i) do not apply to a lift operating on inspection service.</p> <p>(6) A multi-deck lift installation must have systems in place that—</p> <p>(a) are able to communicate to the fire officer that the fire service drive control switch will not operate until all decks have been cleared of passengers; and</p> <p>(b) ensure there is an appropriate method of clearing all deck landings of passengers; and</p> <p>(c) maintain all doors to deck landings not containing the fire service control switch closed and inoperative while the lift is on fire service drive control.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>

Part E4 Visibility in an emergency, exit signs and warning systems

E4D2 Emergency lighting requirements [2019: E4.2]				X	<p>An emergency lighting system must be installed—</p> <p>(a) in every fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; and</p> <p>(b) in every storey of a Class 5, 6, 7, 8 or 9 building where the storey has an area more than 300 m²—</p>
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BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(i) in every passageway, corridor, hallway, or the like, that is part of the path of travel to an exit; and</p> <p>(ii) in any room having a floor area more than 100 m² that does not open to a corridor or space that has emergency lighting or to a road or open space; and</p> <p>(iii) in any room having a floor area more than 300 m²; and</p> <p>(c) in every passageway, corridor, hallway, or the like, having a length of more than 6 m from the entrance doorway of any sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building to the nearest doorway opening directly to—</p> <p>(i) a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or</p> <p>(ii) an external stairway serving instead of a fire-isolated stairway under D2D13; or</p> <p>(iii) an external balcony leading to a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp; or</p> <p>(iv) a road or open space; and</p> <p>(d) in every required non-fire-isolated stairway; and</p> <p>(i) in every required fire control centre.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D3 Measurement of distance [2019: E4.3]			X		Distances, other than vertical rise, must be measured along the shortest path of travel whether by straight lines, curves or a combination of both.
E4D4 Design and operation of emergency lighting [2019: E4.4]				X	<p>Every required emergency lighting system must comply with AS/NZS 2293.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D5 Exit signs [2019: E4.5]				X	<p>An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each—</p> <p>(a) door providing direct egress from a storey to—</p> <p>(i) an enclosed stairway, passageway or ramp serving as a required exit; and</p> <p>(ii) an external stairway, passageway or ramp serving as a required exit; and</p> <p>(iii) an external access balcony leading to a required exit; and</p> <p>(b) door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and</p> <p>(c) horizontal exit; and</p> <p>(d) door serving as, or forming part of, a required exit in a storey required to be provided with emergency lighting in accordance with E4D2.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
NSW E4D6 Direction signs [2019: NSW E4.6]				X	<p>If an exit is not readily apparent to persons occupying or visiting the building, then exit signs must be installed—</p> <p>(a) in appropriate positions in corridors, hallways, lobbies, foyers, auditoria, and the like, indicating the direction to a required exit; and</p> <p>(b) in a Class 9b building used as an entertainment venue — in any external egress path to a road where the exit does not open directly onto a road.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D7 Class 2 and 3 buildings and Class 4 parts: exemptions [2019: E4.7]			X		<p>E4D5 does not apply to—</p> <p>(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—</p> <p>(i) with the word “EXIT” in capital letters 25 mm high in a colour contrasting with that of the background; or</p> <p>(ii) by some other suitable method; and</p> <p>(b) an entrance door of a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building.</p>
E4D8 Design and operation of exit signs [2019: E4.8]				X	<p>Every required exit sign must—</p> <p>(a) comply with—</p> <p>(i) AS/NZS 2293.1; or</p> <p>(ii) for a photoluminescent exit sign, Specification 25; and</p> <p>(b) be clearly visible at all times when the building is occupied by any person having the right of legal entry to the building.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
E4D9 Emergency warning and intercom systems [2019: E4.9]				X	<p>An emergency warning and intercom system complying, where applicable, with AS 1670.4 must be installed—</p> <p>(a) in a building with an effective height of more than 25 m.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Specification 17 Fire Sprinkler systems					
S17C1 Scope [2019: Spec E1.5: 1]			X		<p>This Specification sets out requirements for the design and installation of fire sprinkler systems.</p>
S17C2 Application of automatic fire sprinkler standards [2019: Spec E1.5: 2]				X	<p>Subject to this Specification, an automatic fire sprinkler system must comply with—</p> <p>(a) for all building classifications: AS 2118.1; or</p> <p>(d) for a combined sprinkler and fire hydrant system: AS 2118.6; or</p> <p>(f) for a Class 2, 3 or 9c building: AS 2118.4 as applicable.</p>

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					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S17C3 Separation of sprinklered and non-sprinklered areas [2019: Spec E1.5: 3]			X		Where a part of a building is not protected with sprinklers, the sprinklered and non-sprinklered parts must be fire-separated with a wall or floor which must— (a) comply with any specific requirement of the Deemed-to-Satisfy Provisions of the BCA; or (b) where there is no specific requirement, comply with the relevant part of AS 2118, FPAA101D or FPAA101H.
S17C4 Protection of openings [2019: Spec E1.5: 4]			X		Any openings, including those for service penetrations, in construction separating sprinklered and non-sprinklered parts of a building, including the construction separating the areas nominated for omitted protection in AS 2118.1, must be protected in accordance with the Deemed-to-Satisfy Provisions of Part C4.
S17C5 Quick response sprinklers [2019: Spec E1.5: 5]			X		Quick 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.
S17C6 Sprinkler valve enclosures [2019: Spec E1.5: 6]				X	(1) Sprinkler alarm valves must be located in a secure room or enclosure which has direct egress to a road or open space. (2) All sprinkler valve rooms and enclosures must be secured with a system suitable for use by the fire brigade. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S17C7 Water supply [2019: Spec E1.5: 7]				X	(1) A required sprinkler system must be provided with at least one water supply. (2) A required sprinkler system in a building greater than 25 m in effective height must be provided with dual water supply except that a secondary water supply storage capacity of 25,000 litres may be used if— (a) the storage tank is located at the topmost storey of the building; and (b) the building occupancy is classified as no more hazardous than Ordinary Hazard 2 (OH2) under AS 2118.1; and (c) an operational fire brigade service is available to attend a building fire. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S17C8 Building occupant warning system [2019: Spec E1.5: 8]				X	A required sprinkler system, except a FPAA101D sprinkler system, must be connected to and activate a building occupant warning system complying with S20C7. Compliance commentary <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
S17C9 Connection to other systems [2019: Spec E1.5: 9]				X	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. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S17C10 Anti-tamper devices [2019: Spec E1.5: 10]				X	(1) Where a sprinkler system is installed— (b) in a space housing lift electrical and control equipment (including machine rooms, secondary floors and sheave rooms), any valves provided to control sprinklers in these spaces must be located adjacent to the space. (2) Any valves provided to control sprinklers required by (1) must be fitted with anti-tamper monitoring devices connected to a monitoring panel. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S17C13 Sprinkler systems in lift installations [2019: Spec E1.5: 13]				X	(1) Where sprinklers are installed in a space housing lift electrical and control equipment, including machine rooms, secondary floors and sheave rooms, sprinklers in these spaces must— (a) have heads protected from accidental damage by way of a guard that will not impair the performance of the head; and (b) be capable of being isolated and drained, either separately or collectively, without isolating any other sprinklers within the building. (2) Valves provided to control sprinklers referred to in (1) must be installed in accordance with S17C10(2). Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Specification 19 Fire control centres					
S19C2 Application [2019: Spec E1.8: 1]			X		(1) S19C3 to S19C6 apply to fire control centres (including fire control rooms).
S19C3 Purpose and content of fire control centre [2019: Spec E1.8: 2]				X	A fire control centre must— (a) provide an area from which fire-fighting operations or other emergency procedures can be directed or controlled; and (b) contain controls, panels, telephones, furniture, equipment and the like associated with the required fire services in the building; and (c) not be used for any purpose other than the control of— (i) fire-fighting activities; and (ii) other measures concerning the occupant safety or security. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S19C4 Location of fire control centre [2019: Spec E1.8: 3]				X	A fire control centre must be so located in a building that egress from any part of its floor, to a road or open space, does not involve changes in level which in aggregate exceed 300 mm. Compliance commentary

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<ul style="list-style-type: none"> Location of the fire control centre to be detailed on the plans in accordance with this clause except where a performance solution is obtained. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S19C5 Equipment not permitted within a fire control centre [2019: Spec E1.8: 4]				X	<p>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 accessed through the fire control centre.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S19C6 Ambient sound level for a fire control centre [2019: Spec E1.8: 5]				X	<p>(1) The ambient sound level within the fire control centre measured when all fire safety equipment is operating in the manner in which it operates in an emergency must not exceed 65 dB(A).</p> <p>(2) The measurement must be taken for a sufficient time to characterise the effects of all sound sources.</p> <p>(3) Where there is not a great variation in noise level, a measurement time of 60 seconds may be used.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Specification 20 Smoke detection and alarm systems					
S20C2 Type of system [2019: Spec E2.2a: 2]				X	<p>A required automatic smoke detection and alarm system must be provided in accordance with the following:</p> <p>(a) Class 2 buildings and Class 4 parts of a building—</p> <p>(i) a smoke alarm system complying with S20C3; or</p> <p>(ii) a smoke detection system complying with S20C4; or</p> <p>(iii) a combination of a smoke alarm system and a smoke detection system complying with S20C5.</p> <p>(c) Class 5, 6, 7, 8, 9b and 9c buildings — a smoke detection system complying with S20C4</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S20C3 Smoke alarm system [2019: Spec E2.2a: 3]				X	<p>(1) In all Class 2 - 9 buildings provided with a smoke alarm system, the following applies:</p> <p>(a) A smoke alarm system must—</p> <p>(i) consist of smoke alarms complying with AS 3786; and</p> <p>(ii) be powered from the consumer mains source.</p> <p>(b) In kitchens and other areas where the use of the area is likely to result in smoke alarms causing spurious signals, subject to (c)—</p> <p>(i) any other alarm deemed suitable in accordance with AS 1670.1 may be installed provided that smoke alarms are installed elsewhere in the sole-occupancy unit in accordance with (2)(a) and (2)(b); or</p> <p>(ii) an alarm acknowledgement facility may be installed.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) Where a kitchen or other area referred to in (b) is in a building protected with a sprinkler system complying with Specification 17 (other than a FPAA101D system), alarms need not be installed in the kitchen or other area likely to result in spurious signals.</p> <p>(2) In a Class 2 or 3 building or Class 4 part of a building provided with a smoke alarm system, the following applies:</p> <p>(a) Alarms must be installed within each sole-occupancy unit, and located on or near the ceiling in any storey—</p> <p>(i) containing bedrooms—</p> <p>(A) between each part of the sole-occupancy unit containing bedrooms and the remainder of the sole occupancy unit; and</p> <p>(B) where bedrooms are served by a hallway, in that hallway; and</p> <p>(ii) not containing any bedrooms, in egress paths.</p> <p>(b) Where there is more than one alarm installed within a sole-occupancy unit, alarms must be interconnected within that sole-occupancy unit.</p> <p>(c) Subject to (d), alarms must be—</p> <p>(i) installed in public corridors and other internal public spaces, located in accordance with the requirements for smoke detectors in AS 1670.1; and</p> <p>(ii) connected to activate a building occupant warning system in accordance with S20C7.</p> <p>(d) In a Class 2 or 3 building or Class 4 part of a building protected with a sprinkler system complying with Specification 17 (other than a FPAA101D system), alarms are not required in public corridors and other internal public spaces.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S20C4 Smoke detection system [2019: Spec E2.2a: 4]				X	<p>(1) In all Class 2 - 9 buildings provided with a smoke detection system, the following applies:</p> <p>(a) A smoke detection system must—</p> <p>(i) subject to (2) and (3), comply with AS 1670.1; and</p> <p>(ii) activate a building occupant warning system in accordance with S20C7.</p> <p>(b) In kitchens and other areas where the use of the area is likely to result in smoke detectors causing spurious signals, subject to (c)—</p> <p>(i) any other detector deemed suitable in accordance with AS 1670.1 may be installed provided that smoke detectors are installed elsewhere in the sole-occupancy unit in accordance with the requirements for alarms in S20C3(2)(a) and (2)(b); or</p> <p>(ii) an alarm acknowledgement facility may be installed.</p> <p>(c) Where a kitchen or other area referred to in (b) is in a building protected with a sprinkler system complying with Specification 17</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(other than a FPAA101D or FPAA101H system), detectors need not be installed in the kitchen or other areas likely to result in spurious signals.</p> <p>(2) In a Class 2 or 3 building or Class 4 part of a building provided with a smoke detection system, the following applies:</p> <p>(a) Smoke detectors must be installed—</p> <p>(i) within each sole-occupancy unit, in accordance with the requirements for alarms in S20C3(2)(a) and (2)(b); and</p> <p>(ii) subject to (b), in public corridors and other internal public spaces.</p> <p>(b) In a Class 2 or 3 building or Class 4 part of a building protected with a sprinkler system complying with Specification 17 (other than a FPAA101D or FPAA101H system), smoke detectors are not required in public corridors and other internal public spaces.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S20C5 Combined smoke alarm and smoke detection system [2019: Spec E2.2a: 5]				X	<p>(1) A Class 2 or 3 building or Class 4 part of a building provided with a combination of a smoke alarm system and smoke detection system in accordance with S20C2 must—</p> <p>(a) be provided with a smoke alarm system complying with S20C3 within sole-occupancy units; and</p> <p>(b) subject to (2), be provided with a smoke detection system complying with S20C4 in areas not within sole-occupancy units.</p> <p>(2) In a Class 2 or 3 building or Class 4 part of a building protected with a sprinkler system complying with Specification 17 (other than a FPAA101D or FPAA101H system), smoke detectors are not required in public corridors and other internal public spaces.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S20C6 Smoke detection for smoke control systems [2019: Spec E2.2a: 6]				X	<p>(1) Smoke detectors required to activate air pressurisation systems for fire-isolated exits and zone pressurisation systems must—</p> <p>(a) be installed in accordance with AS 1670.1; and</p> <p>(b) have additional smoke detectors installed adjacent to each bank of lift landing doors set back horizontally from the door openings by a distance of not more than 3 m.</p> <p>(2) Smoke detectors required to activate—</p> <p>(a) automatic shutdown of air-handling systems in accordance with E2D14 to E2D20; or</p> <p>(b) a smoke exhaust system in accordance with Specification 21, must comply with the requirements of (3).</p> <p>(3) Smoke detectors referred to in (2) must—</p> <p>(a) be spaced—</p>



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					<p>(i) not more than 20 m apart and not more than 10 m from any wall, bulkhead or smoke curtain; and</p> <p>(ii) in enclosed malls and walkways in a Class 6 building not more than 15 m apart and not more than 7.5 m from any wall, bulkhead or curtain; and</p> <p>(b) have a sensitivity—</p> <p>(i) in accordance with AS 1670.1 in areas other than a multi-storey walkway and mall in a Class 6 building; and</p> <p>(ii) not exceeding 0.5% smoke obscuration per metre with compensation for external airborne contamination as necessary, in a multi-storey walkway and mall in a Class 6 building.</p> <p>(4) Smoke detectors provided to activate a smoke control system must—</p> <p>(a) either—</p> <p>(i) form part of a building fire or smoke detection system complying with AS 1670.1; or</p> <p>(ii) be a separate dedicated system incorporating control and indicating equipment complying with AS 1670.1; and</p> <p>(b) activate a building occupant warning system complying with S20C7, except that smoke detectors provided solely to initiate automatic shutdown of air-handling systems in accordance with (2)(a) need not activate a building occupant warning system.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S20C7</p> <p>Building occupant warning system</p> <p>[2019: Spec E2.2a: 7]</p>				X	<p>Subject to E4D9, a building occupant warning system provided as part of a smoke hazard management system must comply with clause 3.22 of AS 1670.1 to sound through all occupied areas except—</p> <p>(a) in a Class 2 and 3 building or Class 4 part of a building provided with a smoke alarm system in accordance with S20C3(2)(c)—</p> <p>(i) the sound pressure level need not be measured within a sole-occupancy unit if a level of not less than 85 dB(A) is provided at the door providing access to the sole-occupancy unit; and</p> <p>(ii) the inbuilt sounders of the smoke alarms may be used to wholly or partially meet the requirements; and</p> <p>(b) in a Class 2 and 3 building or Class 4 part of a building provided with a smoke detection system in accordance with S20C4(2), the sound pressure level from a building occupant warning system need not be measured within a sole-occupancy unit if a level of not less than 100 dB(A) is provided at the door providing access to the sole-occupancy unit.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> Fire system plans are required to be developed by an accredited practitioner (fire safety) in accordance with Section 22 of the EP&A (DC&FS) Regulation 2021. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
Specification 24 Lift installations					
S24C2 Lift cars exposed to solar radiation [2019: Spec E3.1: 2]				X	<p>(1) A lift car exposed to solar radiation directly, or indirectly by re-radiation, must have —</p> <ul style="list-style-type: none"> (a) mechanical ventilation at a rate of one air change per minute; or (b) mechanical cooling. <p>(2) A 2 hour alternative power source for ventilation or mechanical cooling at (1) must be provided in the event of normal power loss.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S24C3 Lift car emergency lighting [2019: Spec E3.1: 3]				X	<p>A lift car must have an emergency lighting system designed—</p> <ul style="list-style-type: none"> (a) to come on automatically upon failure of the normal lighting supply; and (b) to provide at least 20 lux of lighting for 2 hours on the alarm initiation button. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S24C4 Cooling of lift shaft [2019: Spec E3.1: 4]				X	<p>While a lift in a lift shaft is in service, the cooling of the lift shaft must—</p> <ul style="list-style-type: none"> (a) ensure that the dry bulb air temperature in the lift shaft does not exceed 40°C; and (b) if the cooling is by a ventilation system, be provided with an air change rate determined using a temperature rise of no more than 5 K. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S24C5 Lift foyer access [2019: Spec E3.1: 5]				X	<p>Where there is a security foyer in a building, access may be via locked security doors provided—</p> <ul style="list-style-type: none"> (a) security doors revert to the unlocked state in the event of— <ul style="list-style-type: none"> (i) power failure; or (ii) fire alarm; and (b) locked foyer areas are monitored by closed circuit television and intercom system to a 24 hour staffed location. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S24C6 Emergency access doors in a single enclosed lift shaft [2019: Spec E3.1: 6]				X	<p>(1) Where a lift is installed in a single enclosed lift shaft having a distance between normal landing entrances greater than 12.2 m, emergency access doors must be provided and constructed as follows:</p> <ul style="list-style-type: none"> (a) The clear opening size of emergency doors must be not less than 600 mm wide x 980 mm high. (b) Hinged doors must not open towards the interior of the lift shaft. (c) Doors must be self-closing and self-locking. (d) Doors must be marked on the landing side with the letters not less than 35 mm high: <p style="text-align: center;">DANGER LIFTWELL ACCESS</p> <p style="text-align: center;">KEEP FURNITURE AND FIXTURES CLEAR</p> <p>(e) Doors from the landing side must only be openable by a tool.</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(f) Each emergency door must be provided with a positive breaking electrical contact, wired into the control circuit to prevent movement of the lift until the emergency door is both closed and locked.</p> <p>(2) Emergency egress from the lift car must be provided in single enclosed lift shafts where—</p> <p>(a) ropes are installed; and</p> <p>(b) the vertical distance between the lift car sill and the landing door head is less than 600 mm; and</p> <p>(c) the counterweight is resting on its fully compressed buffer.</p> <p>(3) Emergency egress required by (2) must be in the form of an interlocked door with clear opening dimensions not less than 600 mm x 600 mm, accessible from the lift car entrance or the lift car roof (where the door is located in the wall of the lift shaft).</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Section F Health and Amenity					
Part F1 External waterproofing, rainwater management and rising damp					
F1D2 Application of Part [New for 2022]			X		<p>(1) F1D4 and F1D5 do not apply to a roof with a covering complying with F3D2(a) to (d).</p> <p>(2) F1D3 to F1D5 do not apply to a balcony, podium or similar horizontal surface part of a building—</p> <p>(a) where the flooring is of timber decking or other perforated flooring; or</p> <p>(b) which is located directly above ground.</p>
F1D3 Stormwater Drainage [2019: F1.1]				X	<p>Stormwater drainage must be designed and constructed in accordance with AS/NZS 3500.3.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F1D4 Exposed Joints [New for 2022]				X	<p>Exposed joints in the drainage surface on a roof, balcony, podium, or similar horizontal surface part of a building must—</p> <p>(a) be protected in accordance with Section 2.9 of AS 4654.2; and</p> <p>(b) not be located beneath or run through a planter box, water feature or similar part of the building.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F1D5 External waterproofing membranes [2019: F1.4]				X	<p>A roof, balcony, podium, or similar horizontal surface part of a building must be provided with a waterproofing membrane—</p> <p>(a) consisting of materials complying with AS 4654.1; and</p> <p>(b) designed and installed in accordance with AS 4654.2.</p> <p><u>Compliance commentary</u></p> <ul style="list-style-type: none"> AED recommend that a waterproofing consultant is engaged to assist in the development of waterproofing plans. Waterproofing details and specifications are required to be developed and incorporated into the architectural plans. Vertical termination heights of external waterproofing membranes to balconies are to be shown as readily capable of compliant.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS																												
					<p>Concrete setout plans indicate that a 70 mm setdown is provided to the balconies.</p> <ul style="list-style-type: none">Where pedestal tiles are proposed to the balconies, this will create a technical non-compliance against AS 4654.2. This is due to the vertical termination height being measured between the internal FFL and the external FFL (top of the pedestal tiles).Vertical termination heights for the external waterproofing membrane are to be determined in accordance with Appendix A of AS 4654.2, copied below for information. <table><caption>TABLE A1 VERTICAL UPWARD TERMINATION HEIGHTS</caption><tr><th>Wind class Regions A and B (non-cyclonic) AS 4055</th><th>Wind class Regions C and D (cyclonic) AS 4055</th><th>Ultimate limit state wind speed ($V_{h,w}$) AS/NZS 1170.2</th><th>Termination height mm</th></tr><tr><td>N1</td><td>—</td><td>34</td><td>40</td></tr><tr><td>N2</td><td>—</td><td>40</td><td>50</td></tr><tr><td>N3</td><td>C1</td><td>50</td><td>70</td></tr><tr><td>N4</td><td>C2</td><td>61</td><td>100</td></tr><tr><td>N5</td><td>C3</td><td>74</td><td>150</td></tr><tr><td>N6</td><td>C4</td><td>86</td><td>180</td></tr></table> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>	Wind class Regions A and B (non-cyclonic) AS 4055	Wind class Regions C and D (cyclonic) AS 4055	Ultimate limit state wind speed ($V_{h,w}$) AS/NZS 1170.2	Termination height mm	N1	—	34	40	N2	—	40	50	N3	C1	50	70	N4	C2	61	100	N5	C3	74	150	N6	C4	86	180
Wind class Regions A and B (non-cyclonic) AS 4055	Wind class Regions C and D (cyclonic) AS 4055	Ultimate limit state wind speed ($V_{h,w}$) AS/NZS 1170.2	Termination height mm																														
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N3	C1	50	70																														
N4	C2	61	100																														
N5	C3	74	150																														
N6	C4	86	180																														
F1D6 Damp-proofing [2019: F1.9]				X	<p>(1) Except for a building covered by (3), moisture from the ground must be prevented from reaching—</p> <ul style="list-style-type: none">(a) the lowest floor timbers and the walls above the lowest floor joists; and(b) the walls above the damp-proof course; and(c) the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. <p>(2) Where a damp-proof course is provided, it must consist of—</p> <ul style="list-style-type: none">(a) a material that complies with AS/NZS 2904; or(b) impervious sheet material in accordance with AS 3660.1. <p>(3) The following buildings need not comply with (1):</p> <ul style="list-style-type: none">(a) A Class 7 or 8 building where in the particular case there is no necessity for compliance.(b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes.(c) An open spectator stand or open-deck carpark. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>																												
F1D7 Damp-proofing of floors on the ground [2019: F1.10]				X	<p>(1) If a floor of a room is laid on the ground or on fill, moisture from the ground must be prevented from reaching the upper surface of the floor and adjacent walls by the insertion of a vapour barrier in accordance with AS 2870.</p> <p>(2) The requirements of (1) do not apply where—</p> <ul style="list-style-type: none">(a) weatherproofing is not required; or(b) the floor is the base of a stair, lift or similar shaft which is adequately drained by gravitation or mechanical means. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>																												

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Part F2 Wet areas and overflow protection					
F2D2 Wet area construction [2019: F1.7(a) and (b)]				X	<p>(1) In a Class 2 and 3 building and a Class 4 part of a building, building elements in wet areas must—</p> <p>(a) be water resistant or waterproof in accordance with Specification 26; and</p> <p>(b) comply with AS 3740.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> AED recommend that a waterproofing consultant is engaged to assist in the development of waterproofing plans. Waterproofing details and specifications are required to be developed and incorporated into the architectural plans. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F2D4 Floor wastes [2019: F1.11]				X	<p>(1) In a Class 2 or 3 building or Class 4 part of a building, a bathroom or laundry located at any level above a sole occupancy unit or public space must have a floor waste.</p> <p>(2) Where a floor waste is installed—</p> <p>(a) the minimum continuous fall of a floor plane to the waste must be 1:80; and</p> <p>(b) the maximum continuous fall of a floor plane to the waste must be 1:50.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part F3 Roof and wall cladding					
F3D2 Roof coverings [2019: F1.5]				X	<p>A roof must be covered with—</p> <p>(a) roof tiles complying with AS 2049, fixed in accordance with AS 2050; or</p> <p>(b) metal sheet roofing complying with AS 1562.1; or</p> <p>(c) plastic sheet roofing designed and installed in accordance with AS 1562.3; or</p> <p>(d) terracotta, fibre-cement and timber slates and shingles designed and installed in accordance with AS 4597, except in cyclonic areas; or</p> <p>(e) an external waterproofing membrane complying with F1D5.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F3D3 Sarking [2019: F1.6]				X	<p>Sarking-type material used for weatherproofing of roofs and walls must comply with AS 4200.1 and AS 4200.2.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F3D4 Glazed assemblies [2019: F1.13]				X	<p>(1) Subject to (2) and (3), the following glazed assemblies in an external wall, must comply with AS 2047 requirements for resistance to water penetration:</p> <p>(a) Windows.</p> <p>(b) Sliding and swinging glazed doors with a frame, including French and bi-fold doors with a frame.</p> <p>(c) Adjustable louvres.</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>(d) Shopfronts.</p> <p>(e) Window walls with one piece framing.</p> <p>(2) The following buildings need not comply with (1):</p> <p>(a) A Class 7 or 8 building where in the particular case there is no necessity for compliance.</p> <p>(b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the like contributes to the weatherproofing of the other part of the building.</p> <p>(3) The following glazed assemblies need not comply with (1):</p> <p>(a) All glazed assemblies not in an external wall.</p> <p>(b) Revolving doors.</p> <p>(c) Fixed louvres.</p> <p>(d) Skylights, roof lights and windows in other than the vertical plane.</p> <p>(e) Sliding and swinging glazed doors without a frame.</p> <p>(f) Windows constructed on site and architectural one-off windows, which are not design tested in accordance with AS 2047.</p> <p>(g) Second-hand windows, re-used windows and recycled windows.</p> <p>(h) Heritage windows.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F3D5 Wall cladding [New for 2022]				X	<p>(1) External wall cladding must comply with one or a combination of the following:</p> <p>(a) Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700.</p> <p>(b) Autoclaved aerated concrete: AS 5146.3.</p> <p>(c) Metal wall cladding: AS 1562.1.</p> <p>(2) The following buildings need not comply with (1):</p> <p>(a) A Class 7 or 8 building where in the particular case there is no necessity for compliance.</p> <p>(b) A garage, tool shed, sanitary compartment, or the like, forming part of a building used for other purposes, except where the construction of the garage, tool shed, sanitary compartment or the like contributed to the weatherproofing of another part of the building that is required to be weatherproofed.</p> <p>(c) An open spectator stand or open deck carpark.</p> <p><u>Compliance commentary</u></p> <ul style="list-style-type: none"> Façade engineer to be engaged to demonstrate compliance with this clause, or otherwise demonstrate compliance with the performance requirements for weatherproofing via performance solution. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification. Where compliance cannot be achieved with the requirements of this clause, a Performance Solution will need to be obtained from a suitably qualified Façade Engineer.</i></p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Part F4 Sanitary and other facilities					
F4D2 Facilities in residential buildings [2019: F2.1]				X	<p>(1) For facilities in Class 2 buildings, the following applies:</p> <p>(a) Within each sole-occupancy unit, provide—</p> <ul style="list-style-type: none"> (i) a kitchen sink and facilities for the preparation and cooking of food; and (ii) a bath or shower; and (iii) a closet pan; and (iv) a washbasin. <p>(b) For laundry facilities, provide either—</p> <ul style="list-style-type: none"> (i) in each sole-occupancy unit— <ul style="list-style-type: none"> (A) clothes washing facilities, comprising at least one washtub and a space for a washing machine; and (B) clothes drying facilities comprising clothes line or a hoist with not less than 7.5 m of line, or space for one heat operated drying cabinet or appliance in the same room as the clothes washing facilities; or <p>(c) For the purposes of (a) and (b), a kitchen sink or washbasin must not be counted as a laundry washtub.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4D4 Facilities in Class 3 to 9 buildings [2019: F2.3]				X	<p>(3) If not more than 10 people are employed, a unisex facility may be provided instead of separate facilities for each sex.</p> <p>(4) If the majority of employees are of one sex, not more than 2 employees of the other sex may share toilet facilities if the facilities are separated by means of walls, partitions and doors to afford privacy.</p> <p>(6) Adequate means of disposal of sanitary products must be provided in sanitary facilities for use by females.</p> <p>(11) Not less than one washbasin must be provided where closet pans or urinals are provided.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F4D8 Construction of sanitary compartments [2019: F2.5]				X	<p>(1) Sanitary compartments must have doors and partitions that separate adjacent compartments and extend—</p> <ul style="list-style-type: none"> (a) from floor level to the ceiling in the case of a unisex facility; or (c) 1.8 m above the floor in all other cases. <p>(2) The door to a fully enclosed sanitary compartment must—</p> <ul style="list-style-type: none"> (a) open outwards; or (b) slide; or (c) be readily removable from the outside of the sanitary compartment, unless there is a clear space of at least 1.2 m, measured in accordance with Figure F4D8, between the closet pan within the sanitary compartment and the doorway. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part F5 Room heights					



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
F5D2 Height of rooms and other spaces [2019: F3.1]				X	<p>(1) The height of rooms and other spaces in a Class 2 or 3 building or Class 4 part of a building must be not less than—</p> <ul style="list-style-type: none"> (a) for a kitchen, laundry, or the like — 2.1 m; and (b) for a corridor, passageway or the like — 2.1 m; and (c) for a habitable room excluding a kitchen — 2.4 m; and (d) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line— <ul style="list-style-type: none"> (i) in an attic — a height of not less than 2.2 m for not less than two-thirds of the floor area of the room or space; and (ii) in other rooms — a height of not less than 2.4 m for not less than two-thirds of the floor area of the room or space; and (e) in a habitable room, or space within a habitable room, with a sloping ceiling or projections below the ceiling line — a height of not less than 2.1 m for not less than two-thirds of the floor area of the room or space. <p>(2) For the purposes of (1), when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included.</p> <p>(3) The height of rooms and other spaces in a Class 5, 6, 7 or 8 building must be not less than—</p> <ul style="list-style-type: none"> (a) except as allowed in (b) and (8) — 2.4 m; and (b) a corridor, passageway, or the like — 2.1 m. <p>(8) The height of rooms and other spaces in any building must be not less than—</p> <ul style="list-style-type: none"> (a) for a bathroom, shower room, sanitary compartment, other than an accessible adult change facility, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and (c) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like; and <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
Part F6 Light and Ventilation					
F6D2 Provision of natural light [2019: F4.1]				X	<p>Natural light must be provided in:</p> <ul style="list-style-type: none"> (a) A Class 2 building and a Class 4 parts of a building — to all habitable rooms. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F6D3 Methods and extent of natural light [2019: F4.2]				X	<p>(1) Required natural light must be provided by—</p> <ul style="list-style-type: none"> (a) windows, excluding roof lights, that— <ul style="list-style-type: none"> (i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room; and (ii) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or (b) roof lights, that—

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(i) have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 3% of the floor area of the room; and</p> <p>(ii) are open to the sky; or</p> <p>(c) a proportional combination of windows and roof lights required by (a) and (b)</p> <p>(2) In a Class 2, 3 or 9 building or Class 4 part of a building, a required window that faces a boundary of an adjoining allotment or a wall of the same building or another building on the allotment must not be less than a horizontal distance from that boundary or wall that is the greater of—</p> <p>(a) generally — 1 m; and</p> <p>(c) 50% of the square root of the exterior height of the wall in which the window is located, measured in metres from its sill.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F6D4 Natural light borrowed from adjoining room [2019: F4.3]			X		<p>(1) Natural light to a room in a Class 2 building or Class 4 part of a building or in a sole-occupancy unit of a Class 3 building, may come through one or more glazed panels or openings from an adjoining room (including an enclosed verandah) if—</p> <p>(a) both rooms are within the same sole-occupancy unit or the enclosed verandah is on common property; and</p> <p>(b) the glazed panels or openings have an aggregate light transmitting area of not less than 10% of the floor area of the room to which it provides light; and</p> <p>(c) the adjoining room has—</p> <p>(i) windows, excluding roof lights, that—</p> <p>(A) have an aggregate light transmitting area of not less than 10% of the combined floor areas of both rooms; and</p> <p>(B) are open to the sky or face a court or other space open to the sky or an open verandah, carport or the like; or</p> <p>(ii) roof lights, that—</p> <p>(A) have an aggregate light transmitting area of not less than 3% of the combined floor areas of both rooms; and</p> <p>(B) are open to the sky; or</p> <p>(iii) a proportional combination of windows and roof lights required by (i) and (ii).</p> <p>(2) The areas specified in (1)(b) and (c) may be reduced as appropriate if direct natural light is provided from another source.</p>
F6D5 Artificial lighting [2019: F4.4]				X	<p>(1) Artificial lighting must be provided—</p> <p>(a) in required stairways, passageways, and ramps; and</p> <p>(b) if natural light of a standard equivalent to that required by F6D3 is not available, and the periods of occupation or use of the room or space will create undue hazard to occupants seeking egress in an emergency, in—</p> <p>(ii) a Class 2 building — to sanitary compartments, bathrooms, shower rooms, airlocks, laundries, common</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>stairways and other spaces used in common by the occupants of the building; and</p> <p>(iii) Class 3, 5, 6, 7, 8 and 9 buildings — to all rooms that are frequently occupied, all spaces required to be accessible, all corridors, lobbies, internal stairways, other circulation spaces and paths of egress.</p> <p>(2) The artificial lighting system must comply with AS/NZS 1680.0.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
NSW F6D6 Ventilation of rooms [2019: F4.5]				X	<p>A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupied by a person for any purpose must have—</p> <p>(a) natural ventilation complying with F6D7; or</p> <p>(b) a mechanical ventilation or air-conditioning system complying with AS 1668.2.</p> <p><u>Compliance commentary</u></p> <ul style="list-style-type: none"> Design Practitioner – Mechanical, is required to develop plans demonstrating compliance with this clause. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F6D7 Natural ventilation [2019: F4.6]				X	<p>(1) Natural ventilation provided in accordance with F6D6(a) must consist of openings, windows, doors or other devices which can be opened—</p> <p>(a) with a ventilating area not less than 5% of the floor area of the room required to be ventilated; and</p> <p>(b) open to—</p> <p>(i) a suitably sized court, or space open to the sky; or</p> <p>(ii) an open verandah, carport, or the like; or</p> <p>(iii) an adjoining room in accordance with F6D8.</p> <p>(2) The requirements of (1)(a) do not apply to a Class 8 electricity network substation.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
F6D8 Ventilation borrowed from adjoining room [2019: F4.7]				X	<p>Natural ventilation to a room may come through a window, opening, door or other device from an adjoining room (including an enclosed verandah) if both rooms are within the same sole-occupancy unit or the enclosed verandah is common property, and—</p> <p>(a) in a Class 2 building, a sole-occupancy unit of a Class 3 building or Class 4 part of a building—</p> <p>(i) the room to be ventilated is not a sanitary compartment; and</p> <p>(ii) the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and</p> <p>(iii) the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms; and</p> <p>(c) the ventilating areas specified in (a) and (b) may be reduced as appropriate if direct natural ventilation is provided from another source.</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
F6D9 Restriction on location of sanitary compartments [2019: F4.8]				X	<p>A sanitary compartment must not open directly into—</p> <ul style="list-style-type: none"> (a) a kitchen or pantry; or (b) a public dining room or restaurant; or (c) a dormitory in a Class 3 building; or (d) a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand); or (e) a workplace normally occupied by more than one person. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F6D10 Airlocks [2019: F4.9]				X	<p>If a sanitary compartment is prohibited under F6D9 from opening directly to another room—</p> <ul style="list-style-type: none"> (a) in a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building— <ul style="list-style-type: none"> (i) access must be by an airlock, hallway or other room; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation; and (b) in a Class 5, 6, 7, 8 or 9 building (which is not an early childhood centre, primary school or open spectator stand)— <ul style="list-style-type: none"> (i) access must be by an airlock, hallway or other room with a floor area of not less than 1.1 m² and fitted with self-closing doors at all access doorways; or (ii) the sanitary compartment must be provided with mechanical exhaust ventilation and the doorway to the room adequately screened from view. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F6D11 Carparks [2019: F4.11]				X	<p>Every storey of a carpark must have—</p> <ul style="list-style-type: none"> (a) a system of mechanical ventilation complying with AS 1668.2; or (b) a system of natural ventilation complying with Section 4 of AS 1668.4 <p>Compliance commentary</p> <ul style="list-style-type: none"> • Design Practitioner – Mechanical, is required to develop plans demonstrating compliance with this clause. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part F7 Sound transmission and insulation					
F7D2 Application of Part [2019: F5.1]			X		<p>The Deemed-to-Satisfy Provisions of this Part apply to Class 2 and 3 buildings and Class 9c buildings.</p> <p>Compliance commentary</p> <ul style="list-style-type: none"> • Design Practitioner – Architectural to develop plans demonstrating compliance with Part F7. • Certification is to be provided from the architect that the CC plans comply with the Part F7.
F7D3				X	<p>A form of construction required to have an airborne sound insulation rating must—</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Determination of airborne sound insulation ratings [2019: F5.2]					<p>(a) have the required value for weighted sound reduction index (R_w) or weighted sound reduction index with spectrum adaptation term ($R_w + C_{tr}$) determined in accordance with AS/NZS ISO 717.1 using results from laboratory measurements; or</p> <p>(b) comply with Specification 28.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D4 Determination of impact sound insulation ratings [2019: F5.3]				X	<p>(1) A floor in a building required to have an impact sound insulation rating must—</p> <p>(a) have the required value for weighted normalised impact sound pressure level ($L_{n,w}$) determined in accordance with AS ISO 717.2 using results from laboratory measurements; or</p> <p>(b) comply with Specification 28.</p> <p>(2) A wall in a building required to have an impact sound insulation rating must—</p> <p>(a) for a Class 2 or 3 building be of discontinuous construction and</p> <p>(3) For the purposes of this Part, discontinuous construction means a wall having a minimum 20 mm cavity between 2 separate leaves, and—</p> <p>(a) for masonry, where wall ties are required to connect leaves, the ties are of the resilient type; and</p> <p>(b) for other than masonry, there is no mechanical linkage between leaves except at the periphery.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D5 Sound insulation rating of floors [2019: F5.4]				X	<p>(1) A floor in a Class 2 or 3 building must have an $R_w + C_{tr}$ (airborne) not less than 50 and an $L_{n,w}$ (impact) not more than 62 if it separates—</p> <p>(a) sole-occupancy units; or</p> <p>(b) a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D6 Sound insulation rating of walls [2019: F5.5]				X	<p>(1) A wall in a Class 2 or 3 building must—</p> <p>(a) have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates sole-occupancy units; and</p> <p>(b) have an R_w (airborne) not less than 50, if it separates a sole-occupancy unit from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and</p> <p>(c) comply with F7D4(2) if it separates—</p> <p>(i) a bathroom, sanitary compartment, laundry or kitchen in one sole-occupancy unit from a habitable room (other than a kitchen) in an adjoining unit; or</p> <p>(ii) a sole-occupancy unit from a plant room or lift shaft.</p> <p>(2) A door may be incorporated in a wall in a Class 2 or 3 building that separates a sole-occupancy unit from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30.</p> <p>(5) Where a wall required to have sound insulation has a floor above, the wall must continue to—</p> <p>(a) the underside of the floor above; or</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(b) a ceiling that provides the sound insulation required for the wall.</p> <p>(6) Where a wall required to have sound insulation has a roof above, the wall must continue to—</p> <p>(a) the underside of the roof above; or</p> <p>(b) a ceiling that provides the sound insulation required for the wall.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D7 Sound insulation rating of internal services [2019: F5.6]				X	<p>(1) If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one sole-occupancy unit, the duct or pipe must be separated from the rooms of any sole-occupancy unit by construction with an $R_w + C_r$ (airborne) not less than—</p> <p>(a) 40 if the adjacent room is a habitable room (other than a kitchen); or</p> <p>(b) 25 if the adjacent room is a kitchen or non-habitable room.</p> <p>(2) If a stormwater pipe passes through a sole-occupancy unit, it must be separated in accordance with (1)(a) and (b).</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F7D8 Sound isolation of pumps [2019: F5.7]				X	<p>A flexible coupling must be used at the point of connection between the service pipes in a building and any circulating or other pump.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part F8 Condensation management					
F8D2 Application of Part [2019: F6.1]			X		<p>The Deemed-to-Satisfy Provisions of this Part only apply to a sole-occupancy unit of a Class 2 building and a Class 4 part of a building.</p>
F8D3 External wall construction [2019: F6.2]				X	<p>(1) Where a pliable building membrane is installed in an external wall, it must—</p> <p>(a) comply with AS 4200.1; and</p> <p>(b) be installed in accordance with AS 4200.2; and</p> <p>(c) be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building.</p> <p>(2) Where a pliable building membrane, sarking-type material or insulation layer is installed on the exterior side of the primary insulation layer of an external wall it must have a vapour permeance of not less than—</p> <p>(a) in climate zones 4 and 5, 0.143 $\mu\text{g}/\text{N.s}$; and</p> <p>(b) in climate zones 6, 7 and 8, 1.14 $\mu\text{g}/\text{N.s}$.</p> <p>(3) Except for single skin masonry and single skin concrete, where a pliable building membrane is not installed in an external wall, the primary water control layer must be separated from water sensitive materials by a drained cavity.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F8D4 Exhaust systems [2019: F6.3]				X	<p>(1) An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of—</p> <p>(a) 25 L/s for a bathroom or sanitary compartment; and</p> <p>(b) 40 L/s for a kitchen or laundry.</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(2) Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air.</p> <p>(3) Where space for a clothes drying appliance is provided in accordance with F4D2(1)(b), space must also be provided for ducting from the clothes drying appliance to outdoor air.</p> <p>(4)(3) does not apply if a condensing-type clothes drying appliance is installed.</p> <p>(5) An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with F6D7 must—</p> <ul style="list-style-type: none"> (a) be interlocked with the room's light switch; and (b) include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off. <p>(6) Except for rooms that are ventilated in accordance with F6D7, a room with space for ducting a clothes drying appliance to outdoor air in accordance with (3) must be provided with make-up air in accordance with AS 1668.2</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
F8D5 Ventilation of roof spaces [2019: F6.4]				X	<p>(1) In climate zones 6, 7 and 8, a roof must have a roof space that—</p> <ul style="list-style-type: none"> (a) is located— <ul style="list-style-type: none"> (i) immediately above the primary insulation layer; or (ii) immediately above sarking with a vapour permeance of not less than 1.14 µg/N.s, which is immediately above the primary insulation layer; or (iii) immediately above ceiling insulation which meets the requirements of J3D7(3) and J3D7(4); and (b) has a height of not less than 20 mm; and (c) is either— <ul style="list-style-type: none"> (i) ventilated to outdoor air through evenly distributed openings in accordance with Table F8D5; or (ii) located immediately underneath roof tiles of an unsarked tiled roof. <p>(2) The requirements of (1) do not apply to a—</p> <ul style="list-style-type: none"> (a) concrete roof; or (b) roof that is made of structural insulated panels; or (c) roof that is subject to Bushfire Attack Level FZ requirements in accordance with AS 3959. <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Specification 26 Waterproofing and water-resistance requirements for building elements in wet areas					
S26C1 Scope [2019: Table F1.7]			X		<p>This Specification sets out requirements for building elements in wet areas that are required to be—</p> <ul style="list-style-type: none"> (a) water resistant; or (b) waterproof.
S26C2 Application			X		<p>(1) The requirements of this Specification apply to—</p> <ul style="list-style-type: none"> (a) shower areas (enclosed and unenclosed); and

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
[2019: Table F1.7]					<p>(b) areas outside a shower area; and</p> <p>(c) areas adjacent to baths and spas; and</p> <p>(d) other areas as set out in clause S26C7.</p> <p>(2) Where a shower is above a bath or spa, use requirements for a shower.</p>
<p>S26C3</p> <p>Shower area (enclosed and unenclosed)</p> <p>[2019: Table F1.7]</p>				X	<p>(1) For a shower area with a hob, step-down or level threshold, the following applies:</p> <p>(a) The floor of the shower area must be waterproof, including any hob or step-down; and</p> <p>(b) The walls of the shower area must be waterproof not less than 1800 mm above the floor substrate.</p> <p>(c) Wall junctions and joints within the shower area must be waterproof.</p> <p>(d) Wall/floor junctions within the shower area must be waterproof.</p> <p>(e) Penetrations within the shower area must be waterproof.</p> <p>(2) A shower with a preformed shower base must also comply with the requirements of (1), except for (a) which is not applicable.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S26C4</p> <p>Area outside shower area</p> <p>[2019: Table F1.7]</p>				X	<p>(1) For concrete, compressed fibre-cement and fibre-cement sheet flooring, the floor of the room must be water resistant.</p> <p>(2) For timber floors including particleboard, plywood and other timber based flooring materials, the floor of the room must be waterproof.</p> <p>(3) Wall/floor junctions must be waterproof</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
<p>S26C5</p> <p>Areas adjacent to baths and spas without showers</p> <p>[2019: Table F1.7]</p>				X	<p>(1) For areas adjacent to a bath and spa, the following applies:</p> <p>(a) For concrete, compressed fibre-cement and fibre-cement sheet flooring, the floor of the room must be water resistant.</p> <p>(b) For timber floors including particleboard, plywood and other timber based flooring materials, the floor of the room must be waterproof.</p> <p>(c) Tap and spout penetrations must be waterproof where they occur in horizontal surfaces.</p> <p>(2) For areas adjacent to a non-freestanding bath and spa, the following applies:</p> <p>(a) Walls must be water resistant—</p> <p>(i) to a height of not less than 150 mm above the vessel, for the extent of the vessel, where the vessel is within 75 mm of a wall; and</p> <p>(ii) to all exposed surfaces below vessel lip.</p> <p>(b) Wall junctions and joints must be water resistant within 150 mm above a vessel for the extent of the vessel.</p> <p>(c) Wall/floor junctions must be waterproof for the extent of the vessel.</p> <p>(3) For inserted baths and spas, the following applies:</p> <p>(a) For floors and horizontal surfaces:</p> <p>(i) Any shelf area adjoining the bath or spa must be waterproof and include a waterstop under the vessel lip.</p>

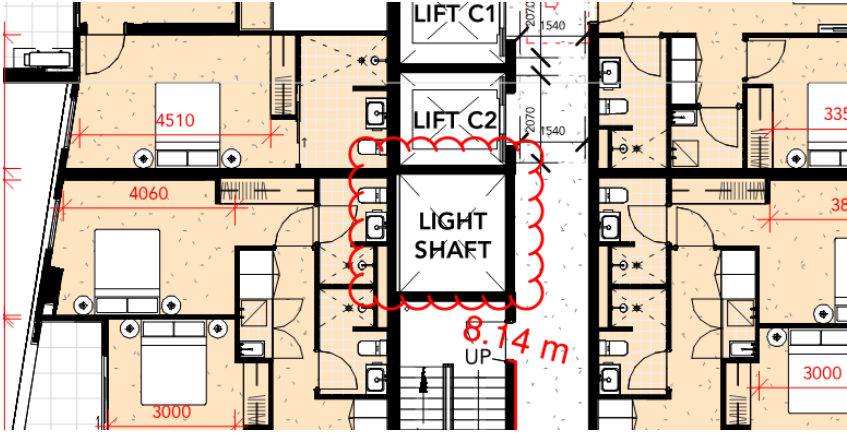
BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) There are no requirements for the floor under a bath or spa.</p> <p>(b) For walls:</p> <p>(i) Waterproof to not less than 150 mm above the lip of a bath or spa.</p> <p>(ii) There are no requirements for walls beneath the lip of a bath or spa.</p> <p>(c) For wall junctions and joints:</p> <p>(i) Waterproof junctions within 150 mm of a bath or spa.</p> <p>(ii) There are no requirements for junctions and joints in walls beneath the lip of a bath or spa.</p> <p>(d) Tap and spout penetrations must be waterproof where they occur in horizontal surfaces.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S26C6 Other areas [2019: Table F1.7]				X	<p>(1) For walls adjoining other types of vessels (e.g. sink, basin or laundry tub), the following applies:</p> <p>(a) Walls must be water resistant to a height of not less than 150 mm above the vessel, for the extent of the vessel, where the vessel is within 75 mm of a wall.</p> <p>(b) Waterproof wall junctions where a vessel is fixed to a wall.</p> <p>(c) Waterproof tap and spout penetrations where they occur in surfaces required to be waterproof or water resistant.</p> <p>(2) For laundries and WCs, other than WCs as described in (3), the following applies:</p> <p>(a) Water resistant floor of the room.</p> <p>(b) Water resistant wall/floor junctions.</p> <p>(c) Waterproof penetrations where they occur in surfaces required to be waterproof.</p> <p>(4) For bathrooms and laundries required to be provided with a floor waste by F2D4, the following applies:</p> <p>(a) Waterproof floor of the room.</p> <p>(b) Waterproof wall/floor junctions.</p> <p>(c) Waterproof penetrations where they occur through the floor.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>

Section G Ancillary Provisions

Part G1 Minor structures and components

NSW G1D5 Provision for cleaning windows [2016: NSW G1.101]				X	<p>(1) A building must provide for a safe manner of cleaning any windows located 3 or more storeys above ground level.</p> <p>(2) A building satisfies (1) where—</p> <p>(a) the windows can be cleaned wholly from within the building; or</p> <p>(b) provision is made for the cleaning of the windows by a method complying with the Work Health and Safety Act 2011 and regulations made under that Act.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
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Part G3 Atrium Construction

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
G3D1 Application of Part [2019: G3.1]				X	<p>This Part does not apply to an atrium which—</p> <p>(a) connects only 2 storeys; or</p> <p>(b) connects only 3 storeys if—</p> <p>(i) each storey is provided with a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 throughout; and</p> <p>(ii) one of those storeys is situated at a level at which there is direct egress to a road or open space.</p> <p>Performance Solution Proposed</p> <ul style="list-style-type: none"> A performance solution has been proposed to omit the atrium requirements from the 'lightwell' located in Building C. 
G3D2 Dimensions of atrium well [2019: G3.2]			X		<p>An atrium well must have a width throughout the well that is able to contain a cylinder having a horizontal diameter of not less than 6 m.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D3 Separation of atrium by bounding walls [2019: G3.3]			X		<p>An atrium must be separated from the remainder of the building at each storey by bounding walls set back not more than 3.5 m from the perimeter of the atrium well except in the case of the walls at not more than 3 consecutive storeys if—</p> <p>(a) one of those storeys is at a level at which direct egress to a road or open space is provided; and</p> <p>(b) the sum of the floor areas of those storeys that are contained within the atrium is not more than the maximum area that is permitted in Table C3D3.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D4 Construction of bounding walls [2019: G3.4]			X		<p>Bounding walls must—</p> <p>(a) have an FRL of not less than 60/60/60, and—</p> <p>(i) extend from the floor of the storey to the underside of the floor next above or to the underside of the roof; and</p> <p>(ii) have any door openings protected with self-closing or automatic –/60/30 fire doors; or</p> <p>(b) be constructed of fixed toughened safety glass, or wired safety glass in non-combustible frames, with—</p> <p>(i) any door openings fitted with a self-closing smoke door complying with Specification 12; and</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(ii) the walls and doors protected with wall-wetting systems in accordance with Specification 31; and</p> <p>(iii) a fire barrier with an FRL of not less than –/60/30 installed in any ceiling spaces above the wall.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D5 Construction at balconies [2019: G3.5]			X		<p>If a bounding wall separating an atrium from the remainder of the building is set back from the perimeter of the atrium well, a barrier that is imperforate and non-combustible, and not less than 1 m high must be provided.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D6 Separation at roof [2019: G3.6]			X		<p>In an atrium—</p> <p>(a) the roof must have the FRL prescribed in Tables S5C11a to S5C11g of Specification 5; or</p> <p>(b) the roof structure and membrane must be protected by a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D7 Means of egress [2019: G3.7]			X		<p>All areas within an atrium must have access to at least 2 exits.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
G3D8 Fire and smoke control systems [2019: G3.8]			X		<p>Sprinkler systems, smoke control, fire detection and alarm systems, and emergency warning and intercom systems must be installed in compliance with Specification 31.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
Part G6 Occupiable outdoor areas					
G6D1 Application of Part [2019: G6.1]			X		<p>(1) The Deemed-to-Satisfy Provisions of this Part apply to buildings containing an occupiable outdoor area in addition to the other Deemed-to-Satisfy Provisions of NCC Volume One.</p> <p>(2) The Deemed-to-Satisfy Provisions of this Part take precedence where there is a difference to the Deemed-to-Satisfy Provisions of Sections C, D, E, F and G.</p> <p>(3) Except for G6D2, the Deemed-to-Satisfy Provisions of this Part do not apply to—</p> <p>(a) an occupiable outdoor area of a sole-occupancy unit in a Class 2 or 3 building, Class 9c building or Class 4 part of a building; or</p> <p>(b) an occupiable outdoor area with an area less than 10m².</p>
G6D2 Fire hazard properties [2019: G6.2]				X	<p>(1) Subject to (2), a lining, material or assembly in an occupiable outdoor area must comply with C2D11 as for an internal element.</p> <p>(2) The following fire hazard properties of a lining, material or assembly in an occupiable outdoor area are not required to comply with C2D11:</p> <p>(a) Average specific extinction area.</p> <p>(b) Smoke-Developed Index.</p> <p>(c) Smoke development rate.</p> <p>(d) Smoke growth rate index (SMOGRARC).</p>

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D3 Fire separation [2019: G6.3]				X	For the purposes of the Deemed-to-Satisfy Provisions of C3D8, C3D9 and C3D10, a reference to a storey includes an occupiable outdoor area, however a fire wall cannot be used to separate an occupiable outdoor area into different fire compartments. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D4 Provision for escape [2019: G6.4]				X	For the purposes of the Deemed-to-Satisfy Provisions of Part D2, a reference to a storey or room includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D5 Construction of exits [2019: G6.5]				X	For the purposes of the Deemed-to-Satisfy Provisions of Part D3, a reference to a storey or room includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D6 Firefighting equipment [2019: G6.6]				X	Except for S17C7(2)(a), for the purposes of the Deemed-to-Satisfy Provisions of Part E1, a reference to a storey includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D7 Lift installations [2019: G6.7]				X	For the purposes of the Deemed-to-Satisfy Provisions of Part E3, a reference to a storey includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D8 Visibility in an emergency, exit signs and warning systems [2019: G6.8]				X	For the purposes of the Deemed-to-Satisfy Provisions of Part E4, a reference to a storey includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D9 Light and ventilation [2019: G6.9]				X	For the purposes of the Deemed-to-Satisfy Provisions of F6D5, F6D9 and F6D10, a reference to a room includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
G6D10 Fire Orders [2019: G6.10]				X	For the purposes of the Deemed-to-Satisfy Provisions of G4D8, a reference to a storey includes an occupiable outdoor area. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
Specification 31 Fire and smoke control systems in buildings containing atriums					
S31C1 Scope [2019: Spec G3.8: 1]			X		This Specification sets out the requirements for the design and operation of systems of fire and smoke control in buildings containing an atrium.
S31C2				X	A sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 must be installed in every building

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
General requirement – automatic fire sprinkler system [2019: Spec G3.8: 2.1]					containing an atrium, except where varied or superseded by this Specification. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
S31C3 Roof protection [2019: Spec G3.8: 2.2]				X	A roof of an atrium which does not have the FRL prescribed in Specification 5 or the Deemed-to-Satisfy Provisions of Part C3 must be protected by automatic sprinklers arranged to wet both the covering membrane and supporting structure if the roof is— (a) less than 12 m above the floor of the atrium or the floor of the highest storey where the bounding construction is set back more than 3.5 m from the atrium well if a Class 2, 3, 5 or 9 part of a building is open to the atrium; or (b) less than 20 m above the floor of the atrium or the floor of the highest storey where the bounding construction is set back more than 3.5 m from the atrium well if a Class 6, 7 or 8 part of a building is open to the atrium, and the temperature rating of sprinkler heads providing roof protection must be within the range 79°C – 100°C. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
S31C4 Atrium floor protection [2019: Spec G3.8: 2.3]				X	The floor of the atrium must be protected by sprinklers with— (a) the use of sidewall pattern sprinkler heads together with overhead sprinklers where dictated by the dimensions of the atrium; and (b) sprinkler heads of the quick response type. <i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i>
S31C5 Sprinkler systems to glazed walls [2019: Spec G3.8: 2.4.1 – 2.4.5]				X	(1) Where an atrium is separated from the remainder of the building by walls or doors incorporating glazing, a wall wetting system must be provided to protect the glazing as follows: (a) On the atrium side of the glazing — to all glazed walls which are set back more than 3.5 m from the atrium well. (b) On the atrium side of the glazing — to all glazed walls which are not set back, or are set back 3.5 m or less, from the atrium well, for all levels which are less than— (i) 12 m above the floor of an atrium or the floor of the highest storey where the bounding wall is set back more than 3.5 m from the atrium well if a Class 2, 3, 5 or 9 part of the building is open to the atrium; or (ii) 20 m above the floor of an atrium or the floor of the highest storey where the bounding wall is set back more than 3.5 m from the atrium well if a Class 6, 7 or 8 part of the building is open to the atrium. (c) On the side of the glazing away from the atrium well — to all glazing forming part of the bounding wall at each storey. (2) Sprinklers must be located in positions allowing full wetting of the glazing surfaces without wetting adjacent sprinkler heads. (3) Sprinkler heads must be of the quick response type and have a maximum temperature rating of 74°C. (4) The rate of water discharge to protect glazing must be not less than—

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(a) on the atrium side of the glazing—</p> <p>(i) 0.25 L/s.m² where glazing is not set back from the atrium well; or</p> <p>(ii) 0.167 L/s.m² where glazing is set back from the atrium well; and</p> <p>(b) on the side away from the atrium well — 0.167 L/s.m².</p> <p>(5) In addition to that of the basic sprinkler protection for the building, the water supply to required wall wetting systems must be of adequate capacity to accommodate the following on the atrium side of the glazing:</p> <p>(a) Where the bounding walls are set back less than 3.5 m from the atrium well — wall wetting of a part not less than 6 m long for a height of not less than—</p> <p>(i) 12 m above the floor of an atrium or the floor of the highest storey where the bounding wall is set back more than 3.5 m from the atrium well if a Class 2, 3, 5 or 9 part of the building is open to the atrium; or</p> <p>(ii) 20 m above the floor of an atrium or the floor of the highest storey where the bounding wall is set back more than 3.5 m from the atrium well if a Class 6, 7 or 8 part of the building is open to the atrium.</p> <p>(b) Where the walls are set back 3.5 m or more from the atrium well — wetting of a part not less than 12 m long on one storey.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C6 Stop valves [2019: Spec G3.8: 2.5]				X	<p>(1) Basic sprinkler and wall wetting systems protecting a building containing an atrium must be provided with easily accessible and identified stop valves.</p> <p>(2) Sprinkler and wall wetting systems must be provided with independent stop valves.</p> <p>(3) Sprinkler heads protecting the roof of the atrium must be provided with a stop valve.</p> <p>(4) Stop valve to wall wetting and roof sprinklers may be of the gate type.</p> <p>(5) All sprinkler and wall wetting stop valves must be monitored to detect unauthorised closure.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C7 General requirements — smoke control system [2019: Spec G3.8: 3.1]				X	<p>Except where varied or superseded by this Specification, mechanical air-handling systems in a building containing an atrium must comply with AS 1668.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C8 Operation of atrium mechanical air-handling systems [2019: Spec G3.8: 3.2]				X	<p>Mechanical air-handling systems serving an atrium must be designed to operate so that during a fire—</p> <p>(a) a tenable atmosphere is maintained in all paths of travel along balconies to required exits during the period of evacuation; and</p> <p>(b) smoke exhaust fans serving the atrium are only activated when smoke enters the atrium; and</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>(c) central plant systems do not use the atrium as a return air path; and</p> <p>(d) central plant systems which use return air paths remote from the atrium—</p> <ul style="list-style-type: none"> (i) cycle to the full outside air mode; and (ii) stop supply air to the fire affected storey or fire compartment; and (iii) continue to fully exhaust the fire affected storey or fire compartment and reduce the exhaust from other storeys or fire compartments by at least 75%; and (iv) continue to supply air to fire compartments or storeys other than the fire affected storey or fire compartment; and <p>(e) fans performing relief or exhaust duty from the atrium stop normal operation; and</p> <p>(f) floor by floor, or unitary, air-handling plant serving a single fire compartment or storey—</p> <ul style="list-style-type: none"> (i) ceases normal operation in the fire affected storey or fire compartment; and (ii) commences full relief or exhaust from that fire affected storey or fire compartment; and (iii) continue to supply air to fire compartments or storeys other than the fire affected storey or fire compartment. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C9 Activation of smoke control system [2019: Spec G3.8: 3.3]				X	<p>(1) The smoke control system must be activated by—</p> <ul style="list-style-type: none"> (a) operation of an automatic fire alarm; or (b) operation of the sprinkler system; or (c) a manual start switch. <p>(2) All controls for the smoke control system must be located—</p> <ul style="list-style-type: none"> (a) in the fire control room; or (b) in the emergency control centre (if any); or (c) adjacent to the sprinkler control valves; or (d) incorporated in the Fire Indicator Panel. <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C10 Smoke exhaust system [2019: Spec G3.8: 3.4]				X	<p>A smoke exhaust system serving an atrium must be designed on the basis of—</p> <ul style="list-style-type: none"> (a) the sprinkler system limiting the size of a fire to— <ul style="list-style-type: none"> (i) a heat output of 1.5 MW and perimeter of 7.5 m if a Class 2, 3, 5 or 9 part of the building is open to the atrium; or (ii) a heat output of 5 MW and perimeter of 12 m if a Class 6, 7 or 8 part of the building is open to the atrium; and (b) a smoke plume reaching a level 3 m above the highest storey having a path of travel to a required exit along a balcony bounding the atrium well, and not less than— <ul style="list-style-type: none"> (i) 12 m above the floor of an atrium or the floor of the highest storey where the bounding wall is set back more





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
					<p>than 3.5 m from the atrium well if a Class 2, 3, 5 or 9 part of the building is open to the atrium; or</p> <p>(ii) 20 m above the floor of an atrium or the floor of the highest storey where the bounding construction is set back more than 3.5 m from the atrium well if a Class 6, 7 or 8 part of the building is open to the atrium; and</p> <p>(c) the smoke exhaust system discharging smoke at a rate of not less than that shown in Figure S31C10 for the appropriate height of smoke plume and fire size—</p> <p>(i) from the top of the atrium; or</p> <p>(ii) horizontally where calculations of wind velocity induced pressure profiles for the building verify that the exhaust system will operate effectively for all wind directions.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C11 Upward air velocity [2019: Spec G3.8: 3.5]				X	<p>Notwithstanding S31C10(c), the average upward air velocity in the atrium, due to the required smoke exhaust quantity must—</p> <p>(a) be not less than 0.2 m/s at any level over an 18 m height above the floor of the atrium; and</p> <p>(b) not exceed the following maximum velocities in atriums of constant cross sectional plan area:</p> <p>(i) For occupancy classification qualifying for 1.5 MW fire size — 3.5 m/s.</p> <p>(ii) For occupancy classifications qualifying for 5 MW fire size — 5 m/s.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C12 Exhaust fans [2019: Spec G3.8: 3.6]				X	<p>(1) Smoke exhaust must be provided by fans capable of continuous and required operation for a period of not less than 1 hour when handling exhaust gases at 200°C.</p> <p>(2) Where a Class 2, 3 or 9 part of a building adjoins an atrium, the atrium must be provided with a minimum of 3 fans each capable of 50% of the total required smoke exhaust capacity.</p> <p>(3) Atriums other than those referred to in (2) must be provided with a minimum of 2 fans each capable of 50% of the total required smoke exhaust capacity.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C13 Smoke and heat vents [2019: Spec G3.8: 3.7]				X	<p>Notwithstanding S31C12, automatic vents complying with AS 2665 may be used, except where a Class 6 part of a building adjoins the atrium, in lieu of exhaust fans provided that—</p> <p>(a) the height from the atrium floor to the bottom of the highest vent is not more than 12 m; and</p> <p>(b) the vents are fitted with a remote manual operation switch located adjacent to the sprinkler control valves or incorporated in the Fire Indicator Panel.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
S31C14				X	<p>(1) Uniformly distributed make-up air must be provided to the atrium exhaust system from—</p>





BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
Make-up air supply [2019: Spec G3.8: 3.8]					<p>(a) outside the atrium at or near the lowest storey level; and</p> <p>(b) relief air from non-fire storeys.</p> <p>(2) A discharge volume sufficient to maintain a velocity of not less than 0.1 m/s towards the atrium well must be provided on all storeys where the bounding wall is set back from the atrium well.</p> <p>(3) The requirements of (1)(a) are satisfied if make-up air is provided to the atrium exhaust system in such a manner as to prevent, as far as possible, disturbance of the smoke layer due to turbulence created by the incoming air, through—</p> <p>(a) openings directly from the outside air to the atrium and located as close as practicable to the lowest level of the atrium; or</p> <p>(b) ducts from the outside air to the atrium which deliver air as close as practicable to the lowest level of the atrium and, where passing through any other fire compartment having an FRL of at least 60/60/60; or</p> <p>(c) a combination of (a) or (b).</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C15 General requirements—fire detection and alarm system [2019: Spec G3.8: 4.1]				X	<p>Except where superseded by this Specification, automatic fire detection and alarm systems in a building containing an atrium must comply with AS 1670.1.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C16 Smoke detection system [2019: Spec G3.8: 4.2]				X	<p>Smoke detection within an atrium—</p> <p>(a) must be provided within all outside air intakes and at individual floor return air intakes of all air-handling systems to initiate automatic fire mode operation, and where applicable, comply with the restart facilities in AS 1668.1; and</p> <p>(b) must operate at an obscuration level not greater than 0.5% per metre with compensation for external airborne contamination as necessary; and</p> <p>(c) must sample air within the atrium and in storeys where the bounding wall is set back more than 3.5 m from the atrium well; and</p> <p>(d) must be calibrated to compensate for smoke dilution where sampling occurs within return air path common to more than one room; and</p> <p>(e) may incorporate beam type detectors to sense smoke in an atrium in a Class 5, 6, 7 or 8 building with an effective height of not more than 25 m if the beam detectors are—</p> <p>(i) located at intervals of not more than 3 storeys; and</p> <p>(ii) arranged to scan at 90 degrees orientation to adjacent beam units.</p> <p>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</p>
S31C17 Smoke detection in spaces				X	<p>Smoke detection systems must be located at all return and relief air openings associated with the building air-handling systems and be—</p> <p>(a) of the sampling type system as required in S31C16; or</p>



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	NA or Informational	Compliance Required	COMMENTS
separated from the atrium by bounding walls [2019: Spec G3.8: 4.3]					(b) of the point type photoelectric smoke detector. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S31C18 Alarm systems [2019: Spec G3.8: 4.4]				X	(1) A break-glass fire alarm point must be provided at each door to a fire-isolated stairway, fire-isolated ramp or fire-isolated passageway. (2) A staged alarm must be provided where an air sampling type smoke detection system is provided for the atrium, and must operate as follows: (a) Alert building management when abnormal smoke levels of 0.03% obscuration per metre are detected. (b) Initiate a second alarm to management and start all smoke control systems including pressurisation of escape routes when smoke levels of 0.07% obscuration per metre are detected. (c) Automatically call the fire brigade, activate the emergency warning and intercom system, and de-activate all plant not necessary for fire safety within the building when smoke levels of 0.09% obscuration per metre are detected. (3) Beam and point type smoke detectors required must simultaneously operate all functions referred to above and activate at the level set out in AS 1670.1. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S31C19 Emergency warning and intercom systems [2019: Spec G3.8: 5]				X	A building containing an atrium must be provided with an emergency warning and intercom system which— (a) complies with AS 1670.4; and (b) incorporates visual warning devices that— (i) operate upon the evacuation signal; and (ii) display the word “EVACUATE” in red with letters conforming with the requirements of the Deemed-to-Satisfy Provisions of Part E4 for exit signs. Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification
S31C20 Standby power system [2019: Spec G3.8: 6]				X	(1) If a required path of travel to an exit is within an atrium, a suitable alternative power supply must be provided to operate required safety systems, including sprinkler systems and fire hydrant pumps, air handling systems, alarms, warning and communication systems and emergency lighting circuits. (2) The alternative power supply must— (a) be connected automatically if the normal power supply fails; and (b) if located within the building, be separated from the remainder of the building by an enclosure with an FRL of at least 120/120/120; and (c) be connected to the safety systems by means of cabling complying with C3D14(3). (3) The requirements of (1) are satisfied by— (a) a single medium voltage supply taken from an electricity substation situated within, or adjacent to, the building concerned where the power supply to the substation consists of two or more

BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational NA or	Compliance Required	COMMENTS
					<p>high voltage cables each taking electricity from separate transformers; or</p> <p>(b) two or more medium voltage supplies each taking electricity from separate electricity substations situated—</p> <p>(i) outside the building concerned; and</p> <p>(ii) at a suitable distance from each other; or</p> <p>(c) a single medium voltage supply taken from an electricity substation together with an electricity generating plant capable of—</p> <p>(i) generating a medium voltage supply; and</p> <p>(ii) starting and taking the required electrical load within a period of not more than 30 seconds from the time of normal supply failure.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>
<p>S31C21</p> <p>System for excluding smoke from fire-isolated exits</p> <p>[2019: Spec G3.8: 7]</p>				X	<p>Required fire-isolated exits in a building containing an atrium must be protected from the entry of smoke in accordance with E2D3.</p> <p><i>Details demonstrating compliance with this clause must be incorporated into the construction certificate plans / specification</i></p>

Section J Energy Efficiency

<p>NSW J2D1</p> <p>Deemed-to-Satisfy Provisions</p> <p>[2019: J0.0]</p>				X	<p>(1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements J1P1 to NSW J1P7 are satisfied by complying with—</p> <p>(a) NSW J2D2; and</p> <p>(b) NSW J3D2 to J3D10; and</p> <p>(c) NSW J4D2 to J4D7; and</p> <p>(d) NSW J5D2 to J5D8; and</p> <p>(e) NSW J6D2 to J6D13; and</p> <p>(f) NSW J7D2 to J7D9; and</p> <p>(g) J8D2 to NSW J8D4; and</p> <p>(h) J9D2 to J9D5.</p> <p>(2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.</p> <p><i>It is recommended that a suitably qualified Energy Consultant is engaged to determine compliance against Section J of the BCA at construction stage.</i></p>
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Notes: New South Wales Section J Energy Efficiency

- (1) For a Class 2 building or a Class 4 part of a building, where a relevant development consent or an application for a complying development certificate requires compliance with a BASIX Single Dwelling or Multi Dwelling Certificate issued under Version 3.0 or earlier, NSW Section J of NCC 2019 Volume One Amendment 1 applies.
- (2) For a Class 2 building or a Class 4 part of a building, where a relevant development consent or an application for a complying development certificate requires compliance with a BASIX Single Dwelling or Multi Dwelling Certificate issued under Version 4.0 or later, Section J of NCC 2022 Volume One applies.
- (3) For a Class 2 building or a Class 4 part of a building, where a relevant development consent or an application for a complying development certificate requires compliance with a BASIX Alterations and Additions Certificate, NSW Section J of NCC 2019 Volume One Amendment 1 applies.



BCA DEEMED-TO-SATISFY PROVISION	COMPLIES	DOES NOT COMPLY	Informational	NA or	Compliance Required	COMMENTS
(4) For a Class 3 building or Class 5 to 9 building: (a) From 1 May 2023 to 30 September 2023 NSW Section J of NCC 2019 Volume One Amendment 1 may apply instead of Section J of NCC 2022 Volume One. (b) From 1 October 2023 Section J of NCC 2022 Volume One applies.						




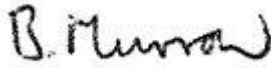
5.0 CONCLUSION

This report provides a Building Code of Australia 2022 (BCA) assessment of the proposed residential unit building, for the purposes of Construction Certificate (CC).

The primary purpose of this report was to identify the non-compliance matters contained in the proposed design philosophy against the current Deemed-to-Satisfy (DTS) Provisions of the BCA and to provide compliance recommendations to overcome the DTS non-compliances.

This report provided a BCA assessment table in Section 3.0 that summarises the identified non-compliance matters and offers specific recommendations that are also outlined in the Executive Summary.

Further, if compliance with the deemed-to-satisfy provisions is not achievable or desirable, Performance Solutions could be further developed and verified by an appropriately qualified BCA Consultant or Fire Safety Engineer.

<p>Prepared by:</p>  <p>Edward Di Michiel Senior Building Surveyor Accredited Building Surveyor – BDC 2256 for AE&D</p>	<p>Reviewed by:</p>  <p>Ben Murrow Senior Associate Accredited Building Surveyor for AE&D</p>
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6.0 ATTACHMENT A - INSPECTION & MAINTENANCE

6.1 Fire Safety Measures

The fire safety measures within the building must be maintained to ensure correct operation at all times the building is occupied. All firefighting equipment should be tagged when tested/inspected and log books kept up-to-date for all smoke detection, warning systems and sprinkler systems (where installed).

An annual fire safety certificate must be submitted to the local consent authority and the NSW Fire Brigade each year indicating satisfactory performance of the fire safety measures contained within the building. The annual fire safety statement should be displayed in a prominent place within the building (i.e. the main entry foyer)

The correct operation and maintenance of the buildings fire safety measures is critical in affording an adequate level of fire safety.

6.2 Good Housekeeping

The ongoing management of the building should ensure good housekeeping procedures. The following matters should be considered by building management:

- ❖ Ensure exits and paths of travel to exits remain unobstructed (in particular stairways)
- ❖ Avoid storage of materials in unoccupied areas
- ❖ Limit storage of flammable/combustible materials to designated and approved areas
- ❖ Prevent chocking open fire/smoke doors
- ❖ Prevent storage of materials that could hinder access to firefighting equipment

7.0 APPENDIX A – TYPE A CONSTRUCTION REQUIREMENTS

This Appendix contains requirements for the fire-resisting construction of building elements in a building of Type A Construction.

<p>S5C2 Exposure to fire-source features</p>	<p>(1) A part of a building element is exposed to a fire-source feature if any of the horizontal straight lines between that part and the fire-source feature, or vertical projection of the feature, is not obstructed by another part of the building that—</p> <ul style="list-style-type: none"> (a) has an FRL of not less than 30/–/–; and (b) is neither transparent nor translucent. <p>(2) A part of a building element is not exposed to a fire-source feature if the fire-source feature is—</p> <ul style="list-style-type: none"> (a) an external wall of another building that stands on the allotment and the part concerned is more than 15 m above the highest part of that external wall; or (b) a side or rear boundary of the allotment and the part concerned is below the level of the finished ground at every relevant part of the boundary concerned. <p>(3) If various distances apply for different parts of a building element—</p> <ul style="list-style-type: none"> (a) the entire element must have the FRL applicable to that part having the least distance between itself and the relevant fire-source feature; or (b) each part of the element must have the FRL applicable according to its individual distance from the relevant fire source feature. <p>(4) The requirements of (3) do not override or permit any exemption from S5C3.</p>
<p>S5C3 Fire protection for a support of another part</p>	<p>(1) Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part, subject to (2), must—</p> <ul style="list-style-type: none"> (a) have an FRL not less than that required by other provisions of this Specification; and (b) if located within the same fire compartment as the part it supports have an FRL in respect of structural adequacy the greater of that required— <ul style="list-style-type: none"> (i) for the supporting part itself; and (ii) for the part it supports; and (c) be non-combustible— <ul style="list-style-type: none"> (i) if required by other provisions of this Specification; or (ii) if the part it supports is required to be non-combustible. <p>(2) The following building elements need not comply with (1)(b) and (1)(c)(ii):</p> <ul style="list-style-type: none"> (a) An element providing lateral support to an external wall complying with C2D12. (b) An element providing support within a carpark and complying with S5C19. (c) A roof providing lateral support in a building— <ul style="list-style-type: none"> (i) of Type A construction if it complies with S5C15(a), (b) or (d). (d) A column providing lateral support to a wall where the column complies with S5C6(1) and (2). (e) An element providing lateral support to a fire wall or fire-resisting wall, provided the wall is supported on both sides and failure of the element on one side does not affect the fire performance of the wall.
<p>S5C4 Lintels</p>	<p>(1) A lintel must have the FRL required for the part of the building in which it is situated.</p> <p>(2) A lintel need not comply with (1) if it does not contribute to the support of a fire door, fire window or fire shutter, and—</p> <ul style="list-style-type: none"> (a) it spans an opening in— <ul style="list-style-type: none"> (i) a wall of a building containing only one storey; or (ii) a non-loadbearing wall of a Class 2 or 3 building; or (b) it spans an opening in masonry which is not more than 150 mm thick and— <ul style="list-style-type: none"> (i) not more than 3m wide if the masonry is non-loadbearing; or (ii) not more than 1.8 m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall.

S5C5 Method of attachment not to reduce the fire-resistance of building elements	<p>The method of attaching or installing a finish, lining, ancillary element or service installation to the building element must not reduce the fire-resistance of that element to below that required.</p>
S5C6 General concessions	<p>(1) Steel columns — A steel column, other than one in a fire wall or common wall, need not have an FRL in a building that contains—</p> <ul style="list-style-type: none"> (a) only 1 storey; or (b) 2 storeys in some of its parts and 1 storey only in its remaining parts if the sum of the floor areas of the upper storeys of its 2 storey parts does not exceed the lesser of— <ul style="list-style-type: none"> (i) 1/8 of the sum of the floor areas of the 1 storey parts; or (ii) in the case of a building to which one of the maximum floor areas specified in Table C3D3 is applicable — 1/10 of that area; or (iii) in the case of a building to which two or more of the maximum floor area specified in Table C3D3 is applicable — 1/10 of the lesser of those areas. <p>(3) Structures on roofs — A non-combustible structure situated on a roof need not comply with the other provisions of this Specification if it only contains—</p> <ul style="list-style-type: none"> (a) lift motor equipment; or (b) one or more of the following: <ul style="list-style-type: none"> (i) Hot water or other water tanks. (ii) Ventilating ductwork, ventilating fans and their motors. (iii) Air-conditioning chillers. (iv) Window cleaning equipment. (v) Other service units that are non-combustible and do not contain flammable or combustible liquids or gases. <p>(4) Curtain walls and panel walls — A requirement for an external wall to have an FRL does not apply to a curtain wall or panel wall which is of non-combustible construction and fully protected by automatic external wall-wetting sprinklers.</p> <p>(5) Balconies and verandahs — A balcony, verandah or the like and any incorporated supporting part, which is attached to or forms part of a building, need not comply with Tables S5C11a to S5C11g, if—</p> <ul style="list-style-type: none"> (a) it does not form part of the only path of travel to a required exit from the building; and (b) in Type A construction— <ul style="list-style-type: none"> (i) it is situated not more than 2 storeys above the lowest storey providing direct egress to a road or open space; and (ii) any supporting columns are of non-combustible construction.
S5C7 Mezzanine floors: Concession	<p>(1) This Clause does not apply to a Class 9b building that is a spectator stand or audience viewing area accommodating more than 100 persons as calculated according to D2D18.</p> <p>(2) A mezzanine and its supports need not have an FRL or be non-combustible provided—</p> <ul style="list-style-type: none"> (a) the total floor area of all the mezzanines in the same room does not exceed 1/3 of the floor area of the room or 200 m², whichever is the lesser; and (b) the FRL of each wall and column that supports any other part of the building within 6 m of the mezzanine is increased by the amount listed in Table S5C7.
S5C8 Enclosure of shafts	<p>(1) 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.</p> <p>(2) The provisions of (1) need not apply to—</p> <ul style="list-style-type: none"> (a) the top of a shaft extending beyond the roof covering, other than one enclosing a fire-isolated stairway or ramp; or

	(b) the bottom of a shaft if it is non-combustible and laid directly on the ground
S5C11 Type A fire-resisting construction — Fire-resistance of building elements	<p>(1) In a building required to be of Type A construction—</p> <p>(a) each building element listed in Tables S5C11a to S5C11g and any beam or column incorporated in it, must have an FRL not less than that listed in those Tables for the particular Class of building concerned; and</p> <p>(b) any internal wall required to have an FRL with respect to integrity and insulation must extend to—</p> <p>(i) the underside of the floor next above; or</p> <p>(ii) the underside of a roof complying with Tables S5C11a to S5C11g; or</p> <p>(iii) if under S5C15 the roof is not required to comply with Tables S5C11a to S5C11g, the underside of the non-combustible roof covering and, except for roof battens with dimensions of 75 mm x 50 mm or less or sarking-type material, must not be crossed by timber or other combustible building elements; or</p> <p>(iv) a ceiling that is immediately below the roof and has a resistance to the incipient spread of fire to the roof space between the ceiling and the roof of not less than 60 minutes; and</p> <p>(c) a loadbearing internal wall and a loadbearing fire wall (including those that are part of a loadbearing shaft) must be constructed from—</p> <p>(i) concrete; or</p> <p>(ii) masonry; or</p> <p>(iii) subject to (2), fire-protected timber; or</p> <p>(iv) any combination of (i) to (iii); and</p> <p>(d) the FRLs specified in Tables S5C11a to S5C11g for an external column apply also to those parts of an internal column that face and are within 1.5 m of a window and are exposed through that window to a fire-source feature.</p> <p>(2) For the purposes of (1)(c)(iii), fire-protected timber may be used, provided that—</p> <p>(a) the building is—</p> <p>(i) a separate building; or</p> <p>(ii) a part of a building—</p> <p>(A) which only occupies part of a storey, and is separated from the remaining part by a fire wall; or</p> <p>(B) which is located above or below a part not containing fire-protected timber and the floor between the adjoining parts is provided with an FRL not less than that prescribed for a fire wall for the lower storey; and</p> <p>(b) the building has an effective height of not more than 25 m; and</p> <p>(c) the building has a sprinkler system (other than a FPAA101D or FPAA101H system) throughout complying with Specification 17; and</p> <p>(d) any insulation installed in the cavity of the timber building element required to have an FRL is non-combustible; and</p> <p>(e) cavity barriers are provided in accordance with Specification 9.</p> <p>(3) For the purposes of Table S5C11a and Table S5C11b, external wall includes any column and other building element incorporated within it or other external building element.</p>

Table S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	90/90/90	120/120/120	180/180/180	240/240/240
1.5 to less than 3 m	90/60/60	120/90/90	180/180/120	240/240/180
3 m or more	90/60/30	120/60/30	180/120/90	240/180/90

Table S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Less than 1.5 m	-/90/90	-/120/120	-/180/180	-/240/240
1.5 to less than 3 m	-/60/60	-/90/90	-/180/120	-/240/180
3 m or more	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11c: Type A construction: FRL of external columns not incorporated in an external wall

Column type	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
<i>Loadbearing</i>	90/-/-	120/-/-	180/-/-	240/-/-
<i>Non-loadbearing</i>	-/-/-	-/-/-	-/-/-	-/-/-

Table S5C11d: Type A construction: FRL of common walls and fire walls

Wall Type	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
<i>Loadbearing or non-loadbearing</i>	90/90/90	120/120/120	180/180/180	240/240/240

Table S5C11e: Type A construction: FRL of loadbearing internal walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	90/90/90	120/120/120	180/120/120	240/120/120
Bounding public corridors, public lobbies and the like	90/90/90	120/-/-	180/-/-	240/-/-
Between or bounding sole-occupancy units	90/90/90	120/-/-	180/-/-	240/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	90/90/90	120/90/90	180/120/120	240/120/120

Table S5C11f: Type A construction: FRL of non-loadbearing internal walls

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
Fire-resisting lift and stair shafts	-/90/90	-/120/120	-/120/120	-/120/120
Bounding public corridors, public lobbies and the like	-/60/60	-/-/-	-/-/-	-/-/-
Between or bounding sole-occupancy units	-/60/60	-/-/-	-/-/-	-/-/-
Ventilating, pipe, garbage, and like shafts not used for the discharge of hot products of combustion	-/90/90	-/90/90	-/120/120	-/120/120

Table S5C11g: Type A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Distance from a fire-source feature	FRL (in minutes): <i>Structural adequacy / Integrity / Insulation</i>			
	Class 2, 3 or 4 part	Class 5, 7a or 9	Class 6	Class 7b or 8
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

S5C12 Type A fire-resisting construction — Concessions for floors	A floor need not comply with Tables S5C11a to S5C11g if— (a) it is laid directly on the ground; or (b) in a Class 2, 3, 5 or 9 building, the space below is not a storey, does not accommodate motor vehicles, is not a storage or work area, and is not used for any other ancillary purpose; or (d) it is within a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building; or (e) it is an open-access floor (for the accommodation of electrical and electronic services and the like) above a floor with the required FRL.
S5C14 Type A fire-resisting construction — Roof superimposed on concrete slab: Concession	A roof superimposed on a concrete slab roof need not comply with S5C11 as to fire-resisting construction if— (a) the superimposed roof and any construction between it and the concrete slab roof are non-combustible throughout; and (b) the concrete slab roof complies with Tables S5C11a to S5C11g.
S5C15 Type A fire-resisting construction — Roof: Concession	A roof need not comply with Tables S5C11a to S5C11g if its covering is non-combustible and the building— (a) has a sprinkler system (other than a FPAA101D or FPAA101H system) complying with Specification 17 installed throughout; or (b) has a rise in storeys of 3 or less; or (c) is of Class 2 or 3; or (d) has an effective height of not more than 25 m and the ceiling immediately below the roof has a resistance to the incipient spread of fire to the roof space of not less than 60 minutes.
S5C16 Type A fire-resisting construction — Roof lights	If a roof is required to have an FRL or its covering is required to be non-combustible, roof lights or the like installed in that roof must— (a) have an aggregate area of not more than 20% of the roof surface; and (b) be not less than 3 m from— (i) any boundary of the allotment other than the boundary with a road or public place; and (ii) any part of the building which projects above the roof unless that part has the FRL required of a fire wall and any openings in that part of the wall for 6 m vertically above the roof light or the like are protected in accordance with C4D5; and (iii) any roof light or the like in an adjoining sole-occupancy unit if the walls bounding the unit are required to have an FRL; and (iv) any roof light or the like in an adjoining fire-separated section of the building; and (c) if a ceiling with a resistance to the incipient spread of fire is required, be installed in a way that will maintain the level of protection provided by the ceiling to the roof space.
S5C17 Type A fire-resisting construction — Internal columns and walls: Concession	For a building with an effective height of not more than 25 m and having a roof without an FRL in accordance with S5C15, in the storey immediately below that roof, internal columns other than those referred to in S5C11(1)(d) and internal walls other than fire walls and shaft walls may have— (a) in a Class 2 or 3 building: FRL 60/60/60; or (b) in a Class 5, 6, 7, 8 or 9 building— (i) with rise in storeys exceeding 3: FRL 60/60/60; or



(ii) with rise in storeys not exceeding 3: no FRL.

