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154-158 Pacific Parade, Dee Why

BCA Assessment Report Report 2024/1796 R1.2

Prepared for Harrington Property
November 2024



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Revision History

Revision No:	Date:	Revision Details:	Author:	Verifier:
R1.0	Monday, 22 July 2024	Final Report – DA Submission	Josh Harvey	Gary Rafferty
R1.1	Monday, 28 October 2024	Updated Report – DA Submission	Josh Harvey	Gary Rafferty
R1.2	Wednesday, 27 November 2024	Updated Report – DA Submission	Josh Harvey	Gary Rafferty

Disclaimer:

This report is based on a desktop audit of preliminary documentation only. Details contained in the report address issues of significance to broad BCA compliance relevant to this stage of design resolution.

This report is based on a review of the design documentation only. It represents a compliance report for “documentation to this point in time” and will be subject to amendment and expansion as project documentation develops.



Executive Summary

An assessment of the design of the proposed design of a mixed-use building containing two levels of basement car parking, two retail tenancies located on ground floor and nine (9) sole-occupancy units across six (6) split level-storeys at 154-158 Pacific Parade, Dee Why has been undertaken against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the Building Code of Australia and the applicable Building Regulations.

This report details the non-compliances identified that require either amendments to plans or a Performance Solution to satisfy the Performance Requirements of the BCA.

Summary of BCA Parameters:

Building Use:	Residential, Retail & Carpark
Class of Occupancy	Class 2,6 & 7a
Type of Construction Required	Type A
Rise Storeys:	Eight (8)
Number of Storeys:	Ten (10)
Effective Height:	14.11m metres (12.00 -26.11)

1. Issues Requiring Resolution

1.1. Fire Engineering Performance solutions required.

It is proposed to satisfy the following non-compliances via Performance Solutions:

Item	DTS Clause	Description
1.	D2D3- Number of exits required	Basement Level 1 & 2 has been provided with a single exit in lieu of two. All other parts of the building have been provided with at least a single exit.
2.	D2D5- Exit travel distances	The distance to an exit exceeds the prescriptive requirements of the BCA in the following locations; 1. Basement Level 1 & 2- 29m
3.	Clause E1D17 & E2D21- Provisions for Special hazards	Where EV charging stations are proposed to be installed within the carparking area, or solar panels are proposed to be installed the installation will be addressed as an Excessive Hazard via BCA Clause ED13 & E2D21 provisions for special hazards.

The design is capable of complying with the requirements of the relevant sections of the Environmental Planning Assessment Act 1979, the Environmental Planning and Assessment Regulations 2021 and the Building Code of Australia 2022. Compliance is subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved. Whilst not precluding the issue of a Development Application, it is noted that many detailed design issues are not indicated on the drawings. These issues are designated “Compliance Readily Achievable” in the “Status” column of the assessment in Section 14 of the report and should be resolved prior to construction.

Key issues which require additional details have been listed under **Section 1** in this report and need to be clarified with SWP or the building certifier for the project prior to the issue of a Construction Certificate.



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GLOSSARY

Building Code of Australia - BCA, National Construction Code - NCC

Deemed-to-Satisfy - DTS

Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 - EPAR (DCFS)

Environmental Planning and Assessment Act 1979 No 203 - EPAA

Environmental Planning and Assessment Regulation 2021 - EPAR



2. Introduction

This report presents the findings of a preliminary assessment undertaken of the proposed design of a ten (10) storey mixed use building located at 154-158 Pacific Parade, Dee Why comprising of two levels of basement car parking, two retail tenancies located on ground floor and nine (9) sole-occupancy units across six (6) split level-storeys against the Deemed-to-Satisfy (DtS) provisions of Building Code of Australia BCA 2022.

The subject site is located at 154-158 Pacific Parade, Dee Why Harbour legally referred to as Lot 1 DP34753 and is located within the Local Government Area of Northern Beaches Council.

Pedestrian access is provided via Griffen Road and The Strand, whilst access to the vehicle carpark is provided via and vehicular access is provided via The Strand.

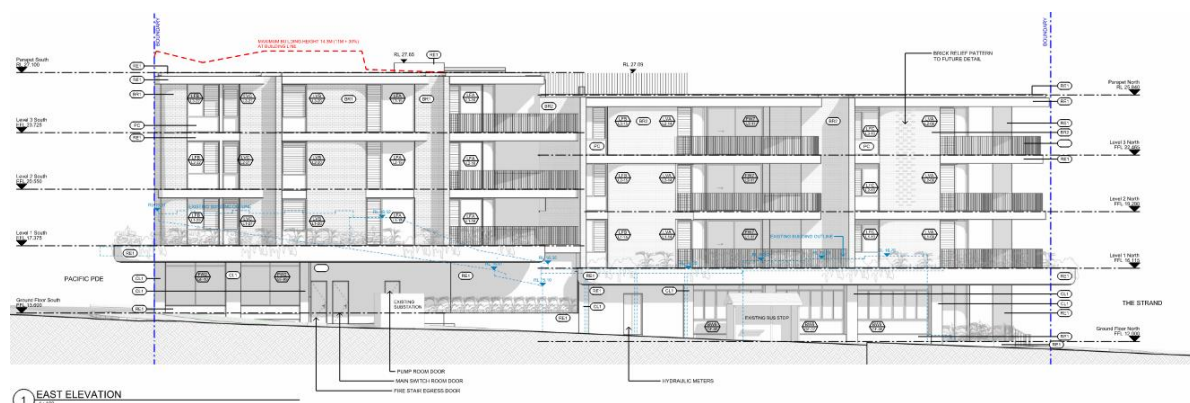


Figure 1- Eastern Elevation courtesy of Platform Architects

This report has been prepared by Steve Watson and Partners for Harrington Property

3. Purpose

The purpose of this report is to provide an assessment of the design documentation against the current requirements of the BCA.

The assessment is undertaken for the purpose of, and to the extent necessary for, Development Application to be issued under the NSW Environmental Planning and Assessment Act 1979 No 203, and Environmental Planning and Assessment Regulation 2021.



4. Scope and Limitations

4.1. Scope

The scope of this assessment is limited to the design documentation referenced in Appendix A of this report.

4.2. Limitations

The following limitations apply to the assessment:

- The report considers matters of a significant nature only and should not be considered exhaustive.
- The plans are assessed to the extent necessary to issue a Development Application. This means the design has been assessed to be capable of complying with the BCA without necessarily having all the detailed design completed at this stage.
- Details in regard to access for people with disabilities have been assessed to the extent of the deemed-to-satisfy provisions of the BCA/Premises Standard only. A detailed assessment against AS 1428 series, AS/NZS 2890.6 - 2009 and AS 4299 - 1995 is outside the scope of this report.
- Generally, the assessment does not incorporate a detailed assessment of the requirements of the Australian Standards.
- Structural and services documentation have not been reviewed.
- Appraisals are limited to the provisions of the BCA and the Premises Standards. Other legislative requirements have not been considered. It does not address additional or specific requirements stipulated under other areas such as Safety in Design, Construction Safety, Disability Discrimination, Planning and Environment, Occupational Health and Safety, Health, Dangerous Goods, etc, which may impact on the design and use of the building. It is recommended that appropriate advice from suitably qualified consultants should be obtained for further information on these areas.
- The BCA report and associated compliance advice is not intended or permitted to be relied on by any other party with respect to their obligations to ensure compliance including but not limited to the making of a compliance declaration under the NSW Design and Building Professionals Act.

5. National Construction Code BCA 2022- Volume 1: Building Code of Australia Class 2 to Class 9 Buildings

The National Construction Code (NCC) is a uniform set of technical provisions for the design and construction of buildings, structures and plumbing/drainage systems which is separated into 3 volumes. Volume 1 of the NCC is the Building Code of Australia (BCA) for Class 2 to 9 buildings which is the document to which the assessment in this report has been undertaken against. The BCA is legislated under The Act and specifies the Performance Requirements for the design and construction of Class 2 to 9 buildings that must be satisfied to achieve compliance. The Performance Requirements can only be satisfied by a Performance Solution, Deemed-to-Satisfy (DTS) solution or a combination of both.

6. Performance Solutions

The BCA is written in a performance format which allows performance based buildings. This has allowed for innovation and variation from the prescriptive deemed-to-satisfy requirements of the BCA, whilst maintaining the principal levels of health, safety and amenity of building occupants.

Performance solutions are generally adopted when a nominated deemed-to-satisfy provision appears inappropriate for the design, or when a proposed design varies from the prescriptive requirements of the BCA. Subsequently, a performance solution supported by Fire Engineering analysis can determine whether



a proposed design that varies from prescriptive requirements, will satisfactorily meet the performance provisions of the BCA. Ultimately, it is with the discretion of the relevant building surveyor whether to accept a deviation from the prescriptive code requirements.

Utilising the performance provisions may result in more economical and somewhat safer building, however performance solutions may require additional on-going maintenance. It is in this instance that all parties, such as the building owner, insurance companies, proposed tenants, etc., are aware of this decision making process and are kept informed of any additional requirements needed to maintain the level of safety.

7. Statutory Framework

The following table summarises the key statutory issues relating to fire safety and the BCA in relation to the certification of new building works.

Issue	Legislative reference	Comment
New Work	EPAR (DCFS) S19	All new works must comply
Residential Flat Development	EPAR (DCFS) S15 & S43	Statement from a qualified designer verifying compliance with SEPP65 for residential developments
BASIX	EPAR (DCFS) S10	BASIX certificate required for residential projects

7.1. New Work

Section 19 of the EPAR (DCFS) requires that all new work comply with the current requirements of the BCA. This means that all works proposed in the plans are required to comply but that existing features of an existing building need not comply with the BCA unless required to under other clauses of the legislation.

7.2. Residential flat development

Section 15 of the EPAR (DCFS) requires a qualified designer to provide a statement that verifies that the plans and specifications achieve or improve the design quality of the development having regard to the design quality principles set out in Part 2 of the *State Environmental Planning Policy No. 65 - Design Quality of Residential Flat Development* (SEPP 65) prior to the issue of a Construction Certificate. Section 43 of the EPAR (DCFS) requires a qualified designer to provide a statement that verifies that the residential flat development achieves the design quality of the development as shown in the plans and specifications having regard to the design quality principles set out in Part 2 of SEPP 65 prior to issuing an Occupation Certificate.

7.3. Fulfilment of BASIX Commitments

Section 10 of the EPAR (DCFS) requires the certifying authority to monitor fulfilment of any commitments listed on the BASIX certificate, where the BASIX certificate requires the certifying authority to monitor those commitments. A final occupation certificate must not be issued until the certifying authority is satisfied that each of the commitments has been fulfilled.



8. Methodology

8.1. Process adopted

The following method of assessment has been used in the preparation of this report:

- 1) Determine the basic assessment data for the building.
- 2) Assess the design of the building against the current Deemed-to-Satisfy requirements of Sections B, C, D, E, F, G, H and J of the BCA. Establish the status of each clause into the following categories:
 - a) Clause is administrative information only (**Noted**);
 - b) Clause is or is not relevant to the proposed work (**Applicable or N/A**)
 - c) The proposed work complies with the requirements of the clause (**Complies**);
 - d) Compliance with the requirements of the clause is unable to be determined from the documentation provided (**Compliance Readily Achievable**). A recommendation in the "Comments" column will indicate what is required to achieve compliance. The design and construction teams are responsible to ensure compliance is achieved;
 - e) Compliance with the requirements of the clause is unable to be determined from the documentation provided. Additional details or relevant information required to verify compliance (**Additional Details Required**);
 - f) Proposed work does not comply with the requirements of the clause (**Does Not Comply**). An indication will be given in the Comments field as to the nature of the issue and whether a performance solution has been proposed to address the issue;
 - g) Proposed work is to be addressed on a performance basis via a Performance Solution satisfying the relevant Performance Requirements. (**Performance Solution**);
- 3) Nominate the status of the design against each BCA requirement;
- 4) Provide comments against each BCA requirement as appropriate.

9. Assessment Data Summary

The following basic assessment data has been drawn from the provisions of the BCA 2022.

9.1. Interpretations

A number of issues within the BCA are recognised to be interpretive in nature. Where these issues are encountered, interpretations are made that are consistent with Standard Industry Practise and/or Steve Watson & Partners policy formulated in regard of each issue.

1. The basement carpark is not required to be provided with dedicated sanitary facilities to comply with Part F4 of the BCA as it is ancillary to the residential, commercial and retail uses of the building.
2. Each split level is considered a "storey".

10. Relevant Authorities

Consultation with the Fire Commissioner is required under Section 26 and 27 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 for performance-based design briefs and performance solutions prepared for a fire safety requirement if:

- (a) the building is a class 2, 3, 4, 5, 6, 7, 8 or 9 building, and
- (b) a Construction Certificate is required for the building work comprising the performance solution.



11. Statutory Fire Safety Measures

All fire/essential safety measures installed within the building are required to be certified upon completion of the project and prior to occupation of the building by the owner of the building, by issuing a Final Fire Safety Certificate under the Act.

The owner is also required under the Act to certify each of the Fire Safety Measures annually by issuing a Fire Safety Statement.

With performance solutions, additional or more frequent maintenance may result.

12. Conclusion

The design is capable of complying with the requirements of the relevant sections of the of the Act and EPAR (DCFS) 2021, EPAR 2021 and the BCA 2022 subject to resolution of the identified areas of non-compliance and compliance with the recommendations provided within the report.

Further detailed regulatory reviews will need to be progressively undertaken as designs advance and become more resolved to ensure compliance is achieved.

13. BCA 2022 - Clause by Clause Assessment

Clause	Description	Comment	Status										
BCA Version													
BCA 2022	<p>BCA version</p> <p>The BCA is generally updated every 3 years with amendments influencing health, safety and amenity features required within the building. Legislation typically allows future BCA changes to be ignored provided substantial progress on the design of the development has previously occurred.</p>	<p>This report assumes that the applicable BCA version is BCA 2022. In addition, requirements of the Premises Standards (PS) are covered as relevant.</p> <p>NCC 2022 uses a new structure and clause referencing system. This system is called Section-Part-Type-Clause (SPTC).</p> <p>An example of the (SPTC) referencing system is expanded upon below:</p> <table border="1"> <thead> <tr> <th>Ref</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Section</td> <td> <p>Refers to the applicable section of the NCC.</p> <p><i>e.g., Section D - Access and egress</i></p> <p>Section lettering will mostly stay as per previous editions of the National Construction Code.</p> </td> </tr> <tr> <td>Part</td> <td> <p>Part identifies the part of the applicable section.</p> <p><i>e.g., Part D2 - Provisions for escape.</i></p> </td> </tr> <tr> <td>Type</td> <td> <p>Type refers to the type of Clause:</p> <p>O - Objective F - Functional Statement P - Performance Requirement V - Verification Method D - Deemed-to-Satisfy C - Specification G - Governing Requirements</p> </td> </tr> <tr> <td>Clause</td> <td> <p>Clause refers to the number within the Type group.</p> </td> </tr> </tbody> </table>	Ref	Description	Section	<p>Refers to the applicable section of the NCC.</p> <p><i>e.g., Section D - Access and egress</i></p> <p>Section lettering will mostly stay as per previous editions of the National Construction Code.</p>	Part	<p>Part identifies the part of the applicable section.</p> <p><i>e.g., Part D2 - Provisions for escape.</i></p>	Type	<p>Type refers to the type of Clause:</p> <p>O - Objective F - Functional Statement P - Performance Requirement V - Verification Method D - Deemed-to-Satisfy C - Specification G - Governing Requirements</p>	Clause	<p>Clause refers to the number within the Type group.</p>	Noted
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Clause	<p>Clause refers to the number within the Type group.</p>												
Section A: General Provisions													
A5G3	<p>Suitability of materials</p> <p>Every part of a building must be constructed in an appropriate manner to achieve the requirements of the BCA, using materials that are fit for the purpose for which they are intended.</p>	<p>The builder is responsible to adopt and install appropriate proprietary accredited building products and is to ensure that those products/assemblies are fit for the purpose they are intended and are installed in accordance with the manufacturer's specifications/ requirements for that system.</p>	Noted										
Part A6	<p>Classification and usage</p> <p>Usage on each level of the building is as follows:</p>	<table border="1"> <thead> <tr> <th>LEVEL</th> <th>USE</th> <th>CLASS</th> </tr> </thead> <tbody> <tr> <td>Basement Level 1 & 2</td> <td>Carpark</td> <td>7a</td> </tr> <tr> <td>Ground Level</td> <td>Retail,</td> <td>6</td> </tr> </tbody> </table>	LEVEL	USE	CLASS	Basement Level 1 & 2	Carpark	7a	Ground Level	Retail,	6	Noted	
LEVEL	USE	CLASS											
Basement Level 1 & 2	Carpark	7a											
Ground Level	Retail,	6											

Clause	Description	Comment	Status
		First Floor Residential 2 – Third Floor	
Part A7	United buildings	N/A	N/A
Section B: Structure			
B1D2	Resistance to actions The resistance of the building must be greater than the most critical action effect resulting from different combinations of actions	Certification from a qualified Structural Engineer will need to be provided at Construction Certificate stage.	Compliance Readily Achievable
B1D3	Determination of individual actions The magnitude of individual actions must be determined in accordance with Clause B1D3 of the BCA.	Certification from a qualified Structural Engineer will need to be provided at Construction Certificate stage.	Compliance Readily Achievable
B1D4	Determination of structural resistance of materials and forms of construction The structural resistance of materials and forms of construction must be determined in accordance with the relevant Australian Standards in accordance with Clause B1D4 of the BCA.	Certification from a qualified Structural Engineer will need to be provided at Construction Certificate stage. Lift shafts which are not required to have an FRL, must— i. be completely enclosed with non-perforated material between the bottom of the pit and the ceiling of the lift shaft, other than— (A) at landing doors, emergency doors and pit access doors; and (B) Low-rise, low-speed constant pressure lifts; and (C) small-sized, low-speed automatic lifts; and ii. be of non-brittle material; and (iv) where glazing is used— (A) comply with Table B1D4; or (B) not fail the deflection criteria required by S6C11(c)(iii)	Compliance Readily Achievable
B1D5	Structural software Structural software used in computer aided design of a building or structure that uses design criteria based on DTS provisions of the BCA must comply with the ABCB Protocol for Structural Software.	Certification from a qualified Structural Engineer will need to be provided at Construction Certificate stage.	Compliance Readily Achievable
B1D6	Construction of buildings in flood hazard areas A Class 2, 3, 4, 9a or 9c building located in a flood hazard area must comply with the ABCB Standard for Construction of Buildings in Flood Hazard Areas.	Hydraulic Engineer to confirm whether the building is located within a flood hazard area and compliance with this clause.	Compliance Readily Achievable

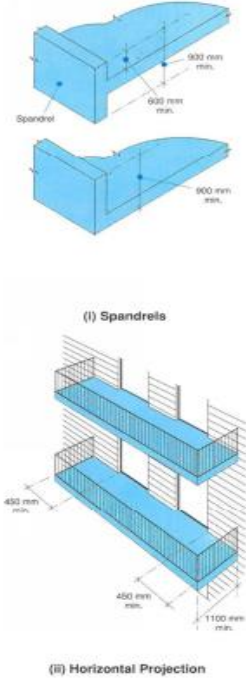
Section C: Fire Resistance

Part C2 - Fire Resistance and Stability

C2D2	<p>Type of construction required Type A Construction BCA Type A fire resisting construction is required. Refer to Appendix Specification 5 for the required FRLs for each building element. Refer to Appendix Specification 5 for the required FRLs for each building element.</p>	<p>The building in its entirety shall be constructed in Type A construction. Details of the proposed construction and how it will achieve the required FRL is to be provided. Certification from a Structural Engineer will be required for FRL's of all structural elements at CC stage.</p>	Compliance Readily Achievable
C2D3	<p>Calculation of rise in storeys Effective Height / Calculation of rise in storeys. Rise in storeys is a defined BCA term addressing the number of main building levels excluding basements. Effective height is defined under the BCA as vertical distance between the floor of the lowest storey included in the calculation of rise in storeys and the floor of the topmost storey (excluding the topmost storey if it contains only heating, ventilating, lift or other equipment, water tanks or similar service units). These parameters influence the BCA provisions applicable to the building.</p>	<p>The following parameters apply:</p> <p>Rise Storeys: Eight (8) Number of Storeys: Ten (10) Effective Height: 14.11m metres (12.00 - 26.11)</p> <p>For the purposes of this assessment, each split-level has been considered a storey due to a 1.3m difference between storeys.</p>	Noted
C2D4	<p>Buildings of multiple classification</p>	<p>The building is required to be constructed of Type A fire resisting construction as the classification of the top storey is a Class 2</p>	Noted
C2D5	<p>Mixed types of construction</p>	<p>N/A – The building in its entirety will be constructed in Type A Construction.</p>	N/A
C2D6	<p>Two storey Class 2, 3 or 9c buildings</p>	<p>N/A – The building in its entirety will be constructed in Type A Construction.</p>	N/A
C2D7	<p>Class 4 parts of buildings</p>	<p>N/A</p>	N/A
C2D8	<p>Open spectator stands and indoor sports stadiums</p>	<p>N/A</p>	N/A
C2D9	<p>Lightweight construction Lightweight construction used in a wall system must comply with Specification 6 - Structural tests for lightweight construction. Lightweight construction used as a fire-resisting covering of a steel column or the like, and where the covering is not in continuous contact with the column must have the voids filled to a height of not less than 1.2m above the floor and where the column is liable to be damaged must be protected by steel or other suitable material.</p>	<p>Fire rated wall types must match a tested prototype. Product codes should be noted on the wall type schedule and corresponding test reports provided for review.</p>	Compliance Readily Achievable
C2D10	<p>Non-combustible building elements In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible:</p> <ol style="list-style-type: none"> I. External walls and common walls, including all components incorporated within them 	<p>The Architect and Structural Engineer are to make provisions for this requirement in the design. A detailed review of the external cladding must be undertaken to ensure that there are no combustible materials and non-</p>	Compliance Readily Achievable

	<p>including façade covering, framing and insulation;</p> <p>II. The flooring and floor framing of lift pits;</p> <p>III. Non-loadbearing internal walls where they are required to be fire-resisting;</p> <p>IV. Non-loadbearing shaft being a lift, ventilating, garbage or similar shaft.</p> <p>The following materials may be used where non-combustible materials are required:-</p> <ul style="list-style-type: none"> • Plasterboard. • Perforated gypsum. • Fibrous-plaster sheeting to AS 2185. • Fibre-reinforced cement sheeting. • Pre-finished metal sheeting having a combustible surface finish not exceeding 1mm thickness and where the spread-of-flame index of the product is not greater than 0. • Sarking-type materials that do not exceed 1mm thickness and have a flammability index not greater than 5. • Bonded laminated materials where each lamina, including any core, is not combustible and each adhesive layer does not exceed 1mm thickness and the total thickness of the adhesive layers does not exceed 2mm and the spread of flame index and smoke development index of the bonded laminated material as a whole do not exceed 0 and 3 respectively and when located externally, are fixed in accordance with C2D15. • Any product as determined by testing to AS 1530.1 • An appropriately BCA accredited product or system 	<p>complaint claddings have not been nominated that could increase the risk of fire spread via the external façade. An architectural specification detailing the components of the external walls and their fire properties are needed for review including corresponding test reports verifying compliance with this clause.</p> <p>Ensure all façade materials have a current Certificate of Conformity or a current Certificate of Accreditation, or the like to determine their acceptance by the Fire Safety Engineer and Fire Brigade</p> <p>Please refer to Appendix C2D10 for further details.</p>	
C2D11	<p>Fire hazard properties <i>(NSW variation for Entertainment Venues)</i></p> <p>Floor materials, floor coverings and wall and ceiling lining materials need to comply with prescribed fire hazard properties. Refer to Appendix C2D11 & compliance with AS5637.1-2015.</p>	<p>Compliance assumed and will require verification test data for all timber and other combustible linings and materials, including:</p> <ul style="list-style-type: none"> • Carpets • Vinyls (walling and flooring) • Timber flooring and wall linings • Veneered wall panelling • Spray-on insulation material • Other combustible finishes • Carpark soffit insulation fire test reports, based on 'room fire testing' will be required to meet fire brigade consent conditions if applicable. <p>A schedule of internal finishes and corresponding fire hazard test data for all combustible internal linings to be provided at CC stage for assessment.</p>	Compliance Readily Achievable
C2D12	Performance of external walls in fire	N/A – The building has a rise in storeys of	N/A

		more than two (2).	
C2D13	Fire-protected timber: Concession	N/A	N/A
C2D14	Ancillary elements An ancillary element must not be fixed, installed or attached to the internal parts or external face of an external wall that is required to be non-combustible unless it is non-combustible or is otherwise permitted under this clause.	At this stage details of ancillary items that may be attached to the external wall have not been provided. In particular details should be provided for the following; <ul style="list-style-type: none"> Awning, sunshade, canopy, blind or shading hood signage fixed to the external wall. Further assessment of the Construction Certificate documentation is required.	Compliance Readily Achievable
C2D15	Fixing of bonded laminated cladding panels In a building required to be of Type A or B construction, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame.	Sufficient details have not been provided at this stage, externally located bonded laminated cladding panels must have all layers of cladding mechanically supported or restrained to the supporting frame in accordance with C2D15. Further details are to be provided at CC stage for assessment.	Compliance Readily Achievable
Part C3 - Compartmentation and Separation			
C3D2	Application of Part	Clauses C3D3, C3D4 and C3D5 do not apply to a sprinkler protected carpark, an open deck carpark or an open spectator stand.	Noted
C3D3	General floor area and volume limitations (Type A construction) The floor area and volume limitations are: Class 7: 5,000m ² and 30,000m ³	The BCA does not require Class 2 parts of the building to be considered. The basement carpark levels are not required to be considered as they are provided with a sprinkler system throughout. The Class 6 parts are within the floor and volume limitations for Type A Construction.	Noted
C3D4	Large isolated buildings	N/A – The building is not considered a large-isolated building to which this clause applies.	N/A
C3D5	Requirements for open space and vehicular access	N/A – The building is not considered a large-isolated building to which this clause applies.	N/A
C3D6	Class 9 buildings	N/A- The building does not contain Class 9 parts.	N/A
C3D7	Vertical separation of openings in external walls Spandrel separation is required in a building of Type A construction that is not sprinkler protected, which must be not less than 900mm in height, extend not less than 600mm above the upper surface of the intervening floor and be of non-combustible material having an FRL of not less than 60/60/60.	Sufficient details have not been provided at this stage in relation to the sprinkler system. However, compliance is readily achievable. Additional details are to be provided at CC stage for assessment demonstrating the required FRL can be achieved.	Compliance Readily Achievable

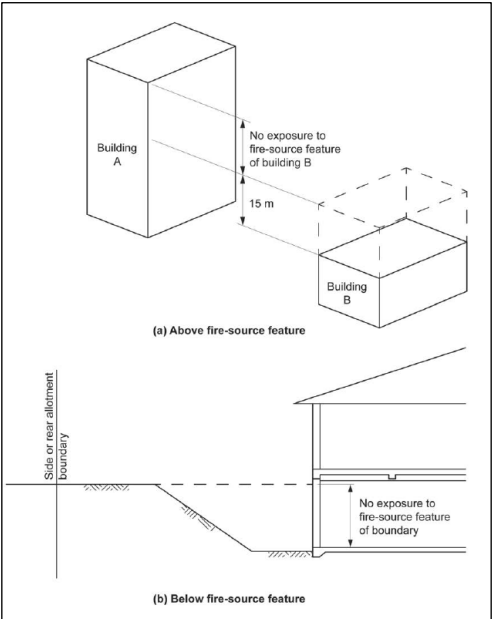
	 <p>(i) Spandrels</p> <p>(ii) Horizontal Projection</p>		
C3D8	Separation by fire walls	Fire walls separating adjoining fire compartments are to be constructed in accordance with C3D8	Compliance Readily Achievable
C3D9	Separation of classifications in the same storey	<p>The whole of the ground floor can be considered a single fire compartment, which is required to achieve FRL 180. Alternatively, it may be feasible to provide rationalised FRL's to the Ground Floor via Fire Engineering Performance Solution.</p> <p>Further details are required for assessment at CC stage.</p>	Compliance Readily Achievable
C3D10	Separation of classifications in different storeys As different classifications are situated one above the other in adjoining storeys they must be separated in accordance with the DTS provisions of the BCA.	<p>The carpark slab separating the retail component shall achieve FRL 180</p> <p>The Ground floor Class 6 parts are required to be fire separated from the Class 2 residential parts to achieve FRL 180.</p> <p>Alternatively, it may be feasible to provide rationalised FRL's to the Ground Floor via Fire Engineering Performance Solution.</p>	Compliance Readily Achievable
C3D11	Separation of lift shafts Openings for lift landing doors and services must be protected in accordance with the DTS provisions of Part C4 of the BCA.	<p>It is assumed that the building can readily comply.</p> <p>Detailed architectural drawings including fire compartment/FRL drawings are to be submitted for further assessment.</p> <p>Note: As the building is sprinkler protected, the car lift is permitted to connect three storeys without being</p>	Compliance Readily Achievable

		contained within a fire isolated shaft. (please refer to Clause B1D4)	
C3D12	Stairways and lifts in one shaft	The current configuration is such that the stairway and lift shafts are contained in separate shaft thereby complying with the requirements of this clause.	Complies
C3D13	Separation of equipment 2hr fire separation is required for: <ul style="list-style-type: none"> Lift motor rooms. Emergency generators sustaining emergency equipment operating in emergency mode. Central mechanical smoke control plant. Boilers. 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. 	It has been assumed that equipment within the building is not required to sustain emergency equipment in emergency mode, emergency lighting, exit signage and smoke detection systems are provided likely to be provided with batter back up.	N/A
C3D14	Electricity supply system	N/A – The substation will be located external to the building.	N/A
C3D15	Public corridors in Class 2 & 3 buildings	N/A – public corridors do not exceed 40 metres in length.	N/A
Part C4 - Protection of Openings			
C4D2	Application of Part	Noted	Noted
C4D3	Protection of openings in external walls Openings in the external walls of the building are to be protected in accordance with C4D5, being fire rated windows, external sprinklers or the like, if they are: <ul style="list-style-type: none"> Less than 3m to side or rear boundary, Less than 6m from the far boundary of a road or lane, Less than 6m from another building on the same allotment. Openings that require protection should not occupy more than $\frac{1}{3}$ of the external wall of the storey in which it is located. 	The building is bounded by public roads on all sides. The distance to the opposite side of the roads exceeds 6m, therefore no window openings are exposed to a fire source feature,	Noted
C4D4	Separation of external walls and associated openings in different fire compartments	N/A	N/A
C4D5	Acceptable method of protection Window openings are to be protected by internal or external wall wetting sprinklers and must automatically close or be permanently fixed in the closed position, -/60/- fire windows that are automatic closing or permanently fixed closed or - /60/60 automatic closing fire shutters. Doorways are to be protected by internal or external wall wetting sprinklers used with doors that are self-closing or automatic closing, or -/60/30 self-closing or automatic closing fire doors. Other openings, excluding voids, are to be protected with internal or external wall wetting sprinklers or construction having an FRL not less than -/60/-.	Noted	Noted

C4D6	Doorways in fire walls	N/A	N/A
C4D7	Sliding fire doors	N/A	N/A
C4D8	Protection of doorways in horizontal exits	N/A	N/A
C4D9	<p>Openings in fire-isolated exits</p> <p>-/60/30 self-closing fire doors are required to doorways providing access to fire isolated stairways.</p> <p>A window or other opening in the external wall of the fire isolated exit is to be protected in accordance with Clause C4D5 if it is within 6m of, and exposed to, a window or other opening in the wall of the same building.</p>	Sufficient details have not been provided at this stage for assessment, however, compliance is readily achievable subject to a door schedule being submitted at CC stage for assessment.	Compliance Readily Achievable
C4D10	<p>Service penetrations in fire-isolated exits</p> <p>Service penetrations other than electrical wiring for essential service installations, pressurisation ducts with an FRL of -/120/60, or water pipes for fire services are not permissible.</p>	<p>Service drawings have not been provided at this stage.</p> <p>It is assumed compliance can readily be achieved.</p> <p>Service contractors are to ensure that no services other than those associated with fire services are contained within the fire isolated stairs.</p>	Compliance Readily Achievable
C4D11	<p>Openings in fire-isolated lift shafts</p> <p>Openings in lift shafts are to be protected by -/60/- fire doors complying with AS1735.11.</p> <p>Lift indicator panels are to be backed by construction having an FRL of not less than -/60/60 if they exceed 35,000mm² (175 X 200 mm).</p>	Certification from the lift supplier or a lift specification noting compliance is needed for review at CC stage.	Compliance Readily Achievable
C4D12	<p>Bounding construction: Class 2 and 3 buildings and Class 4 parts</p> <p><i>(NSW variation for Entertainment Venues)</i></p> <p>Doorways opening to public corridors are to be protected with self-closing -/60/30 fire doors.</p>	Sufficient details have not been provided at this stage for assessment, however, compliance is readily achievable subject to a door schedule being submitted at CC stage for assessment.	Compliance Readily Achievable
C4D13	<p>Openings in floors and ceilings for services</p> <p>Services passing through floors are to be placed within fire resisting shafts or in accordance with Clause C4D15.</p>	Services penetrations of fire rated structure generally need to be fire-stopped and/or located in fire rated riser shafts. Openings in fire rated elements need to be fire resisting to maintain the function of the elements.	Compliance Readily Achievable
C4D14	<p>Openings in shafts</p> <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> <ul style="list-style-type: none"> • If it is 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 • A self-closing -/60/30 fire door or hopper, or • An access panel with an FRL of not less than -/60/30, or • If the shaft is a garbage shaft - a door or hopper of non-combustible construction. 	<p>A door schedule detailing protection to openings in shafts has not been provided at this stage.</p> <p>It is assumed the building can readily comply.</p> <p>Detailed architectural drawings, including door schedules and BCA specification are required to be submitted for further assessment.</p>	Compliance Readily Achievable
C4D15	<p>Openings for service installations</p> <p>Services penetrations through a building element</p>	A schedule of penetrations prepared by a properly qualified BCA consultant	Compliance Readily Achievable

	<p>(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, must comply with a tested system or Specification 13.</p> <p>Methods and materials used are to be identical to tested prototypes and in accordance with AS4072.1 and AS1530.4, and must achieve the required FRL or resistance to the incipient spread of fire or other specified method.</p> <p>Ventilation and air-conditioning systems are to be installed in accordance with AS/NZS 1668.1.</p>	<p>nominating the types of openings requiring protection and the method of protection including test reports for each fire-stopping product is needed for review at CC stage.</p>	<p>Achievable</p>
C4D16	<p>Construction Joints</p> <p>Construction joints in elements required to have a fire resistance with respect to integrity and insulation must be protected.</p>	<p>Construction joints are to be fire protected in a manner identical to a prototype tested in accordance with AS4072.1 and AS1530.4 to achieve the required FRL or must otherwise comply with the requirements of this clause.</p>	<p>Compliance Readily Achievable</p>
C4D17	<p>Columns protected with lightweight construction to achieve an FRL</p>	<p>Columns must be protected in accordance with the identical tested prototype. Product codes should be noted on architectural plans and corresponding test reports provided for review at CC stage</p>	<p>Compliance Readily Achievable</p>

Specification 5 - Fire-resisting construction

S5C1	Scope	Noted	Noted
S5C2	<p>Exposure to fire-source features</p> <p>Shielding elements must have an FRL of not less than 30/-/-.</p> <p>Concessions apply for parts of external walls of another building 15m above the building concerned or if the exposed part is below the finished ground level at the property boundary.</p> 	<p>There are instances whereby a “blade wall” will be constructed, to achieve an FRL 30/-/- to protect openings in the external wall from exposure to the fire source feature.</p>	<p>Noted</p>
S5C3	<p>Fire protection for a support of another part</p> <p>Supporting elements must generally maintain</p>	<p>To minimise the risk that a building element required to have a fire-</p>	<p>Noted</p>

	required FRLs unless a concession is available under this clause.	resistance level (FRL) will fail during the failure of another element required to give it vertical or lateral support	
S5C4	Lintels A lintel must generally maintain the FRL required for the part of the building in which it is situated unless it can otherwise comply with this clause.	To minimise the risk that the failure of a lintel over an opening in a wall required to have a fire-resistance level will result in the failure of the wall during lintel over a fire.	Noted
S5C5	Method of attachment not to reduce the fire-resistance of building elements The method of attaching or installing a finish, lining, ancillary element or service installation to a building element must not reduce the fire-resistance of that element to below that required.	Noted	Noted
S5C6	General concessions <ul style="list-style-type: none"> • (1) & (2) Concessions are applicable for some steel and timber columns in predominantly single storey buildings. • (3) Concessions are available for non-combustible rooftop plant enclosures. • (4) Curtain walls fully protected with external sprinklers do not require an FRL. • (5) Concessions are applicable for balconies not more than 2 storeys above ground that are not the only path of travel toward an exit. 	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— <ul style="list-style-type: none"> (i) lift motor equipment; or (ii) one or more of the following: <ul style="list-style-type: none"> (a) Hot water or other water tanks. (b) Ventilating ductwork, ventilating fans and their motors. (c) Air-conditioning chillers. (d) Window cleaning equipment. Other service units that are non-combustible and do not contain flammable or combustible liquids or gases.	Noted
S5C7	Mezzanine floors: Concession	N/A	N/A
S5C8	Enclosure of shafts Shafts required to have an FRL must be enclosed at the top and bottom by construction have an FRL not less than that required for the walls of the shaft. Shafts, other than one enclosing a fire isolated stairway or ramp, do not require an FRL at the top if the shaft extends beyond the roof covering.	Large-scale sections illustrating how lightweight fire rated construction encloses the top of shafts or how the shafts extend beyond the roof covering per this clause are needed for review.	Compliance Readily Achievable
S5C9	Carparks in Class 2 and 3 buildings	N/A	N/A
S5C10	Residential care building: Concession	N/A	N/A
S5C11	Type A fire-resisting construction – fire-resistance of building elements <ol style="list-style-type: none"> a) All elements must achieve the FRL specified in Table 3. b) Internal walls requiring an FRL must extend to the underside of the floor above, to the roof, or to the underside of a ceiling with resistance to the incipient spread of fire of not less than 60 minutes. c) Loadbearing internal walls (including shafts) and fire walls must be constructed from masonry, concrete or fire-protected timber that complies with this clause. 	It is assumed the building can readily comply. Sufficient details have not been provided at this stage to demonstrate compliance. In the storey directly below the roof the wall shall extend to the underside of a non-combustible roof covering. The Structural Engineer is to provide design drawings and certification specifically referencing applicable BCA clauses, relevant Australian Standards and any applicable Fire Engineering Performance Solution Report with	Compliance Readily Achievable

	d) The FRLs for external columns also apply to internal columns facing and within 1.5 of a window that is exposed to a fire source feature.	regards to the structural design.	
S5C12	Type A fire-resisting construction –concession for floors Floors do not require an FRL if they are: a) Laid on the ground. b) In Class 2, 3, 5 or 9 buildings and the space below is not a storey nor used for ancillary purposes. c) Timber stage floors over a floor with the required FRL, where the space below is not used (e.g. store room). d) Within Class 2, 3 and 4 sole-occupancy units. e) Open-access and above a floor with the required FRL.	Basement Level 2 floor slab is not required to be provided with a FRL.	Noted
S5C13	Type A fire-resisting construction – floor loading of Class 5 and 9b buildings: Concession	N/A	N/A
S5C14	Type A fire-resisting construction – roof superimposed on concrete slab: Concession	N/A	N/A
S5C15	Type A fire-resisting construction – roof: Concession Roofs do not require an FRL if they are non-combustible and: b) The building is sprinkler protected; c) The building has a rise in storeys of 3 or less; d) Is a Class 2 or 3 building; or e) The building is less than 25m in effective height and a ceiling with a RISF60 is installed below the roof.	The concession is applicable on the basis that the building is of Class 2 building.	Noted
S5C16	Type A fire-resisting construction – roof lights	N/A	N/A
S5C17	Type A fire-resisting construction – internal columns and walls: Concession Class 2 and 3 - In a building not more than 25m effective height and with a non-combustible roof complying with Clause 3.5, internal columns and walls (other than fire walls and shaft walls) may have an FRL of 60/60/60.	The concession is applicable on the basis that the building is of Class 2 building not more than 25m in effective height.	Compliance Readily Achievable
S5C18	Type A fire-resisting construction – open spectator stands and indoor sports stadiums: Concession	N/A	N/A
S5C19	Type A fire-resisting construction – carparks	N/A	N/A
S5C20	Type A fire-resisting construction – Class 2 and 3 buildings: Concession	N/A	N/A
Section D: Access and Egress			
Part D2 - Provision for Escape			
D2D2	Application of Part This part does not apply to the internal parts of a sole-occupancy in a Class 2 or 3 building or Class 4 part of a building.	Noted	Noted
D2D3	Number of exits required	Basement Level 1 & 2 has been provided	Performance

	At least one exit must serve each part of storey Access to an exit must be provided without passing through another SOU.	with a single exit in lieu of two. All other parts of the building have been provided with at least a single exit. The current design, is likely to exceed what is acceptable to justify via a Performance Solution and the client should consult with the project Fire Engineer with regards to an acceptable limit for extended travel distance.	Solution
D2D4	When fire-isolated stairways and ramps are required Every stair in a Class 2 building must be fire isolated unless it does not connect or pass through more than 4 consecutive floors in a sprinkler protected building, or 3 storeys in a non-sprinkler protected building.	The current design demonstrates the stairs are fire-isolated stairs in accordance with BCA Clause D2D4.	Complies
D2D5	Exit travel distances The BCA limits maximum travel distances to a point of choice and to an exit. No point on the floor must be more than 20m to an exit or a point in which travel in different directions to 2 exits is available, in which case, the maximum distance to 1 exit cannot exceed 40m. (Note Specification 18 concession for sprinkler protected Class 2 and 3 buildings not more than 25m in effective height)	The distance to an exit exceeds the prescriptive requirements of the BCA in the following locations; 1. Basement Level 1 & 2- 31.69 m The current design is likely to exceed what is acceptable to justify via a Performance Solution and the client should consult with the project Fire Engineer with regards to an acceptable limit for extended travel distance. The distance to an exit from within the retail space and the entry door of residential sole-occupancy units comply with the requirements of D2D5	Performance Solution
D2D6	Distance between alternative exits	N/A – Each storey is served by a single exit only.	N/A
D2D7	Height of exits, paths of travel to exits and doorways Except for doorways, paths of travel must have a clear height of at least 2m.	Sufficient details have been provided for assessment. However, it is assumed compliance is readily achievable subject to detailed design development. Architectural drawings are to be submitted for further assessment detailing the paths of travel must have a clear height of at least 2m.	Compliance Readily Achievable
D2D8	Width of exits and paths of travel to exits (NSW variation for Access and egress)	The architectural drawings demonstrate that all doors achieve a minimum of 750mm clear opening.	Complies
D2D9	Width of doorways in exits or paths of travel to exits (NSW variation for Access and egress)	The architectural drawings demonstrate that all paths of travel to an exit achieve a minimum of 1m clear.	Complies
D2D10	Exit width not to diminish in direction of travel	The path of the travel to the street does not diminish in the direction of travel	Complies

D2D11	Determination and measurement of exits and paths of travel to exits	Egress widths are measured clear of any obstructions and are to comply with the requirements of this clause.	Noted
D2D12	Travel via fire-isolated exits	The current configuration of the fire isolated stairs is as such compliance with D2D12 has been achieved.	Complies
D2D13	External stairways or ramps in lieu of fire-isolated exits	N/A – External stairs are not proposed in lieu of fire isolated stairs	N/A
D2D14	Travel by non-fire-isolated stairways or ramps	N/A	N/A
D2D15	Discharge from exits <i>(NSW variation for Entertainment Venues)</i> An exit must not be blocked nor be capable of being blocked at its point of discharge.	Efforts shall be made to ensure that exits discharging to the public carpark cannot be blocked. This may require the installation of bollards adjoining the exit, this may be subject to council approval. Further details are required to be provided to demonstrate compliance.	Compliance Readily Achievable
D2D16	Horizontal exits	N/A	N/A
D2D17	Non-required stairways, ramps or escalators	N/A	N/A
D2D18	Number of persons accommodated	The followings persons have been assumed to be accommodated: 1. Residential SOU – no more than 5 persons per SOU 2. Retail (Staff) – 20 persons 3. Retail - F & B -100 persons	Noted
D2D19	Measurement of distances	Noted	Noted
D2D20	Method of measurement	Noted	Noted
D2D21	Plant rooms, lift machine rooms and electricity network substations: Concession	N/A - Level access is provided to all plant areas.	N/A
D2D22	Access to lift pits Access requirements apply to lift pits over 3m in depth.	Lift consultant to confirm at CC stage.	Compliance Readily Achievable
D2D23	Egress from primary schools	N/A – Class 9b parts not contained within the building.	N/A
Part D3 - Construction of Exits			
D3D2	Application of Part <i>(NSW variation for Entertainment Venues)</i>	Noted	Noted
D3D3	Fire-isolated stairways and ramps Fire resisting shafts must be constructed of non-combustible materials and so that if there is local failure it will not cause structural damage or impair the fire resistance of the shaft.	The Structural Engineer is required to provide design certification at Construction Certificate stage with regards to the structural design.	Compliance Readily Achievable
D3D4	Non-fire-isolated stairways and ramps	N/A	N/A
D3D5	Separation of rising and descending stair flights	There is no direct connection between the rising and descending stairs.	Complies

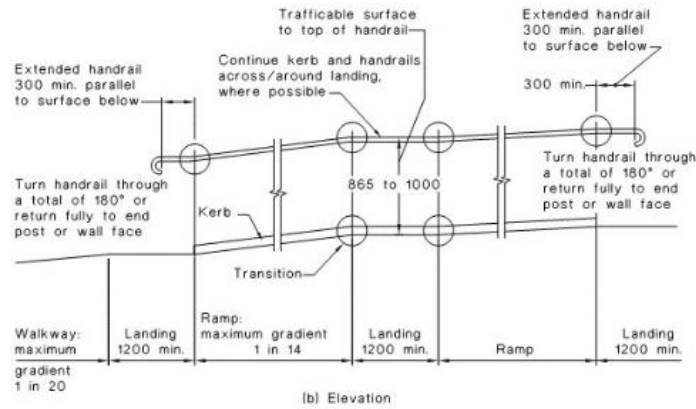
		The current design details separating construction at Ground Level as per the requirements of D3D5.	
D3D6	Open access ramps and balconies	N/A	N/A
D3D7	Smoke lobbies	N/A	N/A
D3D8	<p>Installations in exits and paths of travel</p> <p>Electrical meters and motors, distribution boards and telecommunication boards must not be accessed from fire isolated exits and, if located in corridors leading to exits, should occur in non-combustible or fire protective smoke sealed enclosures.</p> <p>No openings to ducts conveying hot products of combustion permitted in required exits.</p> <p>Gas or fuel services not permitted in required exits.</p> <p>Electric or services equipment in paths of travel to exits must be within a non-combustible and smoke sealed enclosure.</p>	The architectural drawings indicate the location of the electrical comms and DB' within the external open space. A door schedule is to be updated identifying non-combustible construction or a fire protective covering with doorways suitably sealed against smoke spread at CC stage.	Compliance Readily Achievable
D3D9	Enclosure of space beneath stairs and ramps	N/A	N/A
D3D10	Width of required stairways and ramps	N/A	N/A
D3D11	Pedestrian ramps	No pedestrian ramps have been identified within the preliminary assessment.	Noted
D3D12	Fire-isolated passageways	N/A	N/A
D3D13	Roof as open space	N/A	N/A
D3D14	<p>Going and risers (NSW variation for Entertainment Venues)</p> <p>To provide safe passage, stairways must comply with the following:</p> <ul style="list-style-type: none"> • minimum 2 risers / maximum 18 in each flight • risers 115mm min 190 mm max - going 250mm min 355mm max - 2R+G 550mm min 700mm max. • Adjacent risers, or between adjacent goings a variation no greater than 5mm is permitted and the largest and smallest riser within the flight or the largest and smallest going within a flight is not to exceed a variation of 10mm. • Under the requirements of AS1428.1-2009 open riser are not permitted. • All treads to be fitted with non-slip finish or non-skid strips. • Treads are required to have a surface or nosing strip with a slip-resistance classification not less than listed in Table D3D15 when tested in accordance with AS 4586 	Sufficient details have not been provided at this stage to demonstrate compliance. Large scale stair details are needed for review and should demonstrate compliance with the requirements of this clause.	Compliance Readily Achievable

	<table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Riser (R)</th> <th colspan="2">Going (G) ⁽²⁾</th> <th colspan="2">Quantity (2R+G)</th> </tr> <tr> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> <th>Min</th> </tr> </thead> <tbody> <tr> <td>Public stairways</td> <td>190</td> <td>115</td> <td>355</td> <td>250</td> <td>700</td> <td>550</td> </tr> <tr> <td>Private stairways⁽¹⁾</td> <td>190</td> <td>115</td> <td>355</td> <td>240</td> <td>700</td> <td>550</td> </tr> </tbody> </table>							Riser (R)		Going (G) ⁽²⁾		Quantity (2R+G)		Max	Min	Max	Min	Max	Min	Public stairways	190	115	355	250	700	550	Private stairways ⁽¹⁾	190	115	355	240	700	550		
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D3D15	<p>Landings</p> <p>Ramps Surfaces, stair tread surfaces or nosing strips, and stair landing surfaces, or landing nosing strips to a flight below, must achieve slip-resistance classifications to AS4586-2013 as follows:</p> <table border="1"> <thead> <tr> <th><u>Application</u></th> <th><u>Dry Surface Conditions</u></th> <th><u>Wet Surface Condition</u></th> </tr> </thead> <tbody> <tr> <td>1:14 or steeper ramps</td> <td>P4 or R11</td> <td>P5 or R12</td> </tr> <tr> <td>Ramps of 1:14 to 1:20</td> <td>P3 or R10</td> <td>P4 or R11</td> </tr> <tr> <td>Tread or Landing Surface</td> <td>P3 or R10</td> <td>P4 or R10</td> </tr> <tr> <td>Nosing Strip or Landing Strip</td> <td>P3</td> <td>P4</td> </tr> </tbody> </table>	<u>Application</u>	<u>Dry Surface Conditions</u>	<u>Wet Surface Condition</u>	1:14 or steeper ramps	P4 or R11	P5 or R12	Ramps of 1:14 to 1:20	P3 or R10	P4 or R11	Tread or Landing Surface	P3 or R10	P4 or R10	Nosing Strip or Landing Strip	P3	P4	<p>A finishes schedule specifying ramp and stairway finishes and corresponding slip resistance certification/test reports are needed for review.</p>	<p>Compliance Readily Achievable</p>																	
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D3D16	<p>Thresholds</p> <p><i>(NSW variation for Entertainment Venues)</i></p> <p>Steps should not occur at doorways without a threshold landing except as follows:</p> <ul style="list-style-type: none"> In a building required to be accessible and the doorway opens to a road or open space and is provided with a threshold ramp or step ramp in accordance with AS1428.1, Or in any other case a single 190mm step is permitted at doors leading to the exterior. 	<p>The architectural drawings do not detail any steps within the threshold of doorways.</p>	<p>Compliance Readily Achievable</p>																																
D3D17	<p>Barriers to prevent falls</p>	<p>Specific details regarding the construction of barriers have not been provided at this stage, however, the elevations and sections appear to show balustrades in locations and heights as required.</p> <p>Updated architectural drawings and BCA specification to be provided for further assessment.</p>	<p>Compliance Readily Achievable</p>																																
D3D18	<p>Height of barriers</p> <p><i>(NSW variation for Entertainment Venues)</i></p> <p>Barriers must generally not be less than 865mm for stairways and ramps and 1m in all other cases. A 700mm balustrade is permitted in front of fixed seating in an auditorium.</p>	<p>Specific details regarding the construction of barriers have not been provided at this stage, however, the elevations and sections appear to show balustrades in locations and heights as required.</p> <p>The internal landing length of the fire isolated stair exceeds 500mm. Therefore, the barrier is required to be a minimum of 1000mm in height.</p>	<p>Compliance Readily Achievable</p>																																

		Updated architectural drawings and BCA specification to be provided for further assessment.	
D3D19	<p>Openings in barriers</p> <p>Openings in a required barrier must not allow a 125mm sphere to pass through, except for concessions applying to fire-isolated stairs or other emergency use areas excluding Class 9b early childhood centres.</p> <p>Where a barrier is fixed to the face of a landing, balcony or the like, the opening between the barrier and the face must not permit a 40mm sphere to pass through.</p>	<p>Specific details regarding the construction of barriers have not been provided at this stage, however, the elevations and sections appear to show balustrades in locations and heights as required.</p> <p>Updated architectural drawings and BCA specification to be provided for further assessment.</p>	Compliance Readily Achievable
D3D20	<p>Barrier climbability</p> <p>Where the level of the surface below is 4m or more, a balustrade or other barrier must not facilitate climbing of horizontal elements between 150mm and 760mm above the floor.</p>	<p>Specific details regarding the construction of barriers have not been provided at this stage, however, the elevations and sections appear to show balustrades in locations and heights as required.</p> <p>Updated architectural drawings and BCA specification to be provided for further assessment.</p>	Compliance Readily Achievable
D3D21	<p>Wire barriers</p>	<p>Specific details regarding the construction of barriers have not been provided at this stage, however, the elevations and sections appear to show balustrades in locations and heights as required.</p> <p>Updated architectural drawings and BCA specification to be provided for further assessment.</p>	Compliance Readily Achievable
D3D22	<p>Handrails</p> <p>Handrails to exits including parts of fire isolated exit serving an area required to be accessible to people with disabilities must comply with Clause 12 of AS1428.1, viz:</p> <ul style="list-style-type: none"> • Handrails not to obstruct circulation space • 30-50mm diameter • 865-1000mm above nosing line of stairs • 865-1000mm above ramps and landings • Consistent height throughout • 50mm grip clearance and no obstructions to handhold • Continuous at internal (return) landings • Provided with handrail extensions and 180 degree curled ends 	<p>Handrails are to be provided in compliance with Clause D4D4, which includes the following-</p> <p>Non-Fire Isolated Stairways and Ramps</p> <p>All stairs and ramps not used as an emergency exit are to have handrails installed on both sides that comply with Clause 10 & 11 of AS1428.1-2009</p> <p>Fire Isolated Stairways and Ramps</p> <p>In fire isolated stairways & ramps a handrail is required to be installed to at least one side of stair flights and located not less than 865mm above the nosing's of stair treads and the floor surfaces of landings.</p> <p>Consistent Handrail Heights for all stairways</p> <p>The height of the top of the handrail, measured at a height of between 865mm - 1000mm vertically from the stair nosing shall be consistent throughout the ramp (or stairs) and any landings.</p> <p>All stairs including fire stairs are required to be designed to comply with Clause 12 of AS1428.1 - 2009.</p>	Compliance Readily Achievable

Large scale section of stair and handrail construction is required to be provided at CC stage for further assessment.

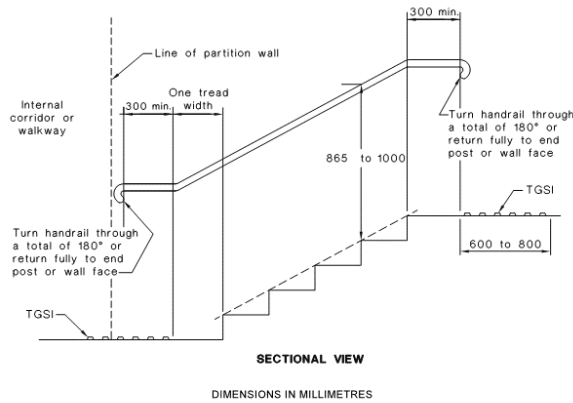
Ramps



DIMENSIONS IN MILLIMETRES

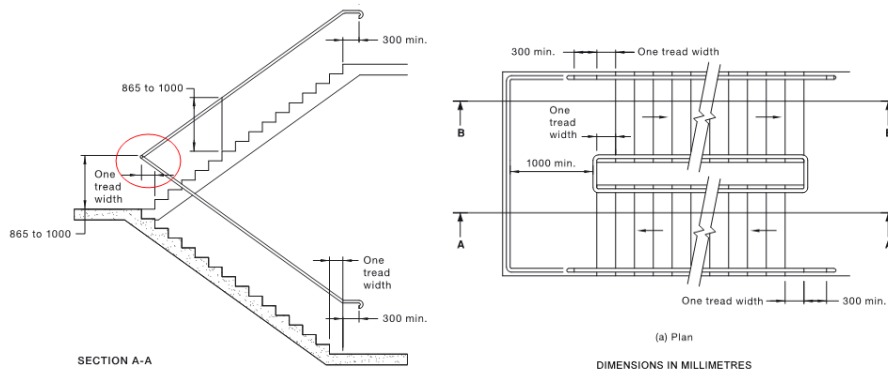
FIGURE 14 RAMP HANDRAILS

Stairways



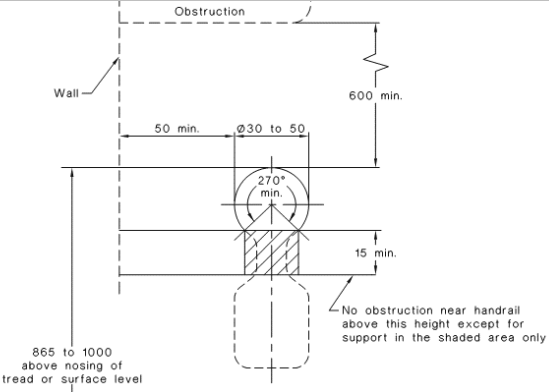
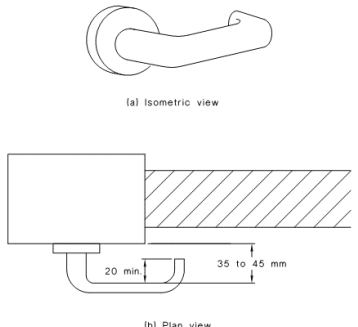
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FIGURE 26(B) STAIRWAY LOCATION AND HANDRAIL EXTENSIONS AT END OF STAIRWAY OTHER THAN AT LINE OF BOUNDARY



DIMENSIONS IN MILLIMETRES

Handrail Profile

			
<p>D3D23</p>	<p>Fixed platforms, walkways, stairways and ladders Platforms, walkways, stairs, ladders and the like that give access to and around plant and equipment, machine rooms, attic spaces and other low use areas of the building are permitted provided that construction details are to AS1657.</p>	<p>Certification to AS1657 is to be provided</p>	<p>Compliance Readily Achievable</p>
<p>D3D24</p>	<p>Doorways and doors</p>	<p>The Class 7a area on Ground floor is served by a roller shutter, as the area is less than 200m² a roller shutter is permitted. The roller shutter must be held in the open position while the building or part is lawfully occupied.</p>	<p>Compliance Readily Achievable</p>
<p>D3D25</p>	<p>Swinging doors Defined exit doors that serve a part of a building with a floor area over 200m² must swing outward in the direction of exit travel. Exit doors must not encroach more than 500mm into the required width of the stair or 100mm when fully open and must swing in the direction of travel.</p>	<p>All doors serving as required exits swing in the direction of travel. The door serving the retail SOU is permitted to swing against the direction of travel as it serves an area of less than 200m².</p>	<p>Complies</p>
<p>D3D26</p>	<p>Operation of latch <i>(NSW variation for Entertainment Venues)</i> Exit doors should be provided with “free handle” egress via a downward or pushing action and, if serving an area accessible to people with disabilities, must have non-slip “D” pull handles with 35-45mm hand clearances.</p>  <ul style="list-style-type: none"> • Where the latch operation device is not located on the door leaf itself- • manual controls to power-operated doors 	<p>No details of hardware have been provided at this stage. A door schedule and BCA specification is to be submitted at Construction Certificate stage which demonstrate compliance with D3D6 and AS1428.1-2009.</p>	<p>Compliance Readily Achievable</p>

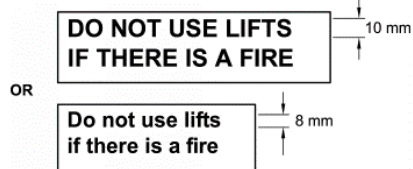
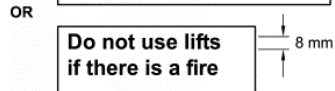
	<p>must be at least 25 mm wide, proud of the surrounding surface and located not less than 500 mm from an internal corner; and</p> <ul style="list-style-type: none"> for a hinged door, between 1 m and 2 m from the door leaf in any position; and for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position. braille and tactile signage complying with Clause 3 and 6 of Specification D3.6 must identify the latch operation device. <p>Doors in a Class 9b building (other than schools or early childhood centres) serving a storey or room accommodating more than 100 people must be provided with a panic bar.</p>		
D3D27	Re-Entry from Fire-Isolated Exits	N/A	N/A
D3D28	<p>Signs on doors</p> <p>Signage in capital letters not less than 20mm high to be provided on doors as follows.</p> <ol style="list-style-type: none"> An automatic door held open by an automatic hold-open device: FIRE SAFETY DOOR - DO NOT OBSTRUCT for a self-closing door FIRE SAFETY DOOR DO NOT OBSTRUCT DO NOT KEEP OPEN for a door discharging from a fire-isolated exit FIRE SAFETY DOOR - DO NOT OBSTRUCT 	<p>Under Section 108 of the Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021 a notice is to be displayed in a conspicuous location adjacent to a doorway providing access to but not within a fire isolated stairway, passageway or ramp. The words “OFFENCES RELATING TO FIRE EXITS” are to be provided in letters at least 8mm high and the remaining words are to be at least 2.5mm high.</p> <p>The notice is to state the following:</p> <p style="text-align: center;">OFFENCES RELATING TO FIRE EXITS</p> <p style="text-align: center;">It is an offence under the Environmental Planning and Assessment Act 1979</p> <ol style="list-style-type: none"> to place anything in or near this fire exit that may obstruct persons moving to or from this exit, or to interfere with or obstruct the operation of any fire doors, or to remove, damage or otherwise interfere with this notice. 	Compliance Readily Achievable
D3D29	<p>Protection of openable windows</p> <p>Windows serving a residential bedroom or serving an early childhood centre must be protected where the floor is 2m or more above the external surface below.</p> <p>Window openings must be provided with protection if the floor below the window is 2m or more above the surface beneath in the bedrooms of Class 2 buildings.</p> <p>Where the window sill is below 1.7m above the floor level, the openable portion of the window must be protected with</p> <ul style="list-style-type: none"> a device to restrict the window opening or a screen with secure fittings 	<p>Window hardware details have not been provided at this stage.</p> <p>A window schedule and BCA specification are to be submitted for further assessment demonstrating compliance with D3D29.</p>	Compliance Readily Achievable

	<p>A device or screen required must:</p> <ul style="list-style-type: none"> not permit a 125mm sphere to pass through the window opening or screen; and resist an outward horizontal action of 250N against the window restrained by a device or screen protecting the opening and have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden. <p>Where the fall distance from the floor to the surface below is 4m or more or where a release device occurs to a required screen, an additional barrier at 865mm above floor level is required and must be non-climbable with gaps no greater than 125mm between elements.</p>		
D3D30	Timber stairways: Concession	N/A – At this stage timber stairways have not been proposed.	N/A
NSW D3D31	Doors in the path of travel in an Entertainment Venue	N/A- The building is not an entertainment venue.	N/A
Part D4 - Access for People with Disabilities			
D4D2	<p>General building access requirements</p> <p>Access is generally required for persons with a disability throughout all areas unless specifically exempted.</p>	Please refer to 3 rd Party Access report.	Noted
Section E: Services and Equipment			
Part E1 - Fire Fighting Equipment			
E1D2	<p>Fire hydrants</p> <p>The building requires a fire hydrant system in accordance with AS2419.1-2021.</p> <p>Where a sprinkler system is installed in the building in accordance with AS 2118.1, AS 2118.4 or AS 2118.6, the fire hydrant booster protection requirements of clauses 7.6.2 and 7.6.3 of AS2419.1 do not apply.</p> <p><i>Note: Varied booster protection requirements for sprinklered and non-sprinklered buildings.</i></p> <p><i>Note: Ring main requirements for large-isolated buildings and buildings exceeding 25m in effective height.</i></p>	<p>Full compliance with AS2419.1-2021 will be required unless varied via fire brigade approval.</p> <p>The hydrant booster assembly has been located adjacent to the principal pedestrian entrance and parallel to Th Strand</p> <p>The Hydraulic Engineer must ensure that compliant coverage is provided to all areas of the building from the internal hydrants and must provide design certification to accompany the drawings certifying the design complies with Clause E1D2 of the BCA and AS2419.1-2021 (noting any non-compliances, which are to be addressed as a Performance Solution).</p>	Compliance Readily Achievable
E1D3	<p>Fire hose reels</p> <p>Fire hose reel coverage to AS2441-2005 is required throughout with hose reels located adjacent to stairs and exits. Where coverage is not achieved with hose reels located Additional hose reels are permitted to be located along the paths of travel to achieve coverage where;</p> <p>Hoses are not permitted to pass through fire or smoke doors to achieve hose reel cover.</p> <p>Note: Fire hose reels not required to: -</p>	The Hydraulic Engineer must ensure that compliant coverage is provided to all areas of the building and must provide design certification to accompany the drawings certifying the design complies with Clause E1D3 of the BCA and AS2441 - 2005.	Compliance Readily Achievable

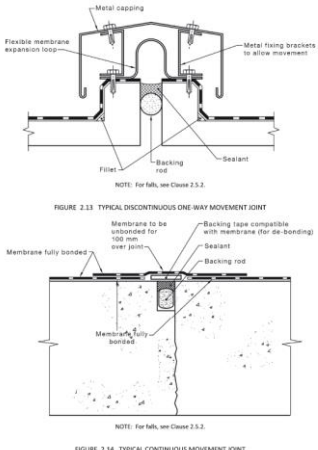
	<ul style="list-style-type: none"> Class 2, 3, 4, 5 and 9c buildings; Class 8 electricity network substations; Classrooms and associated corridors in primary and secondary schools 		
E1D4	<p>Sprinklers</p> <p>Fire sprinkler protection to AS2118.1-2017, FPAA 101D, FPAA101H as relevant is a mandatory requirement for the project if:-</p> <ul style="list-style-type: none"> Class 2 building and any other class of building containing a Class 2 or 3 part (Note: residential care buildings are excluded), throughout the whole building including any part of another class, if any part of the building has a rise in storey of 4 or more and an effective height of not more than 25m. <p>Sprinkler pumps and valves must be accessible from the street.</p> <p>Sprinkler system activation must be linked to an audible occupant warning system.</p>	<p>The building is required to be provided with a sprinkler system in accordance with;</p> <ol style="list-style-type: none"> AS2118.1-2017 FPAA 101D FPAA101H <p>At CC stage, the Hydraulic Engineer is to provided Design drawings and Design Certification in accordance with the relevant provisions of the Standard.</p>	Compliance Readily Achievable
E1D5	Where sprinklers are required: all classifications	N/A	N/A
E1D6	Where sprinklers are required: Class 2 and 3 buildings other than residential care buildings	<p>The building is proposed to be provided with a sprinkler system in accordance with;</p> <ol style="list-style-type: none"> AS2118.1-2017 FPAA 101D FPAA101H <p>At CC stage, the Hydraulic Engineer is to provided Design drawings and Design Certification in accordance with the relevant provisions of the Standard. .</p>	Compliance Readily Achievable
E1D7	Where sprinklers are required: Class 3 building used as a residential care building	N/A	N/A
E1D8	Where sprinklers are required: Class 6 building	N/A	N/A
E1D9	Where sprinklers are required: Class 7a building, other than an open-deck carpark	N/A	N/A
E1D10	Where sprinklers are required: Class 9a health-care building used as a residential care building, Class 9c buildings	N/A	N/A
E1D11	Where sprinklers are required: Class 9b buildings	N/A	N/A
E1D12	Where sprinklers are required: additional requirements	N/A	N/A
E1D13	Where sprinklers are required: occupancies of excessive hazard	N/A	N/A
E1D14	<p>Portable fire extinguishers</p> <p>Portable Fire Extinguishers are required be installed to sections (3) and (4) in Clause E1D14 and AS 2444 requirements, at:</p> <ul style="list-style-type: none"> Class 2 residential areas are to be protected by 2.5kg ABE type fire extinguishers located in common areas on the storey served and located not more than 10m from each sole 	<p>Compliance is readily achievable.</p> <p>The architectural drawings are to be updated to denote the location of portable fire extinguishers in accordance with this clause at CC stage.</p>	Compliance Readily Achievable

	occupancy unit entry door.		
E1D15	Fire control centre	N/A	N/A
E1D16	<p>Fire precautions during construction</p> <p>Fire services are required during construction, including fire hydrants and hose reels which must be active and operational after the building reaches a construction stage effective height of 12m.</p> <p>When the building reaches 12m effective height:</p> <ul style="list-style-type: none"> All required hydrants and hose reels must be operational on every storey covered by a roof or floor slab over, except for the two uppermost storeys. Any required booster connections must be installed. 	<p>Further discussion required with builder to determine that this is included in their program.</p> <p>BCA compliance with respect to fire services during construction can be problematic as hydrants with required pressures and flows and booster connections often cannot be achieved at the required time. A temporary fire protection system, possibly with temporary boosters and no fire pumps, may need to be agreed with the fire brigade. This needs to be put in place early in the construction programme and may require liaison with the builder and his fire services contractor.</p>	Noted
E1D17	Provisions for special hazards	Where EV charging stations are proposed to be installed within the carparking area, or solar panels are proposed to be installed the installation will be addressed as a special hazard via BCA Clause ED13 & E2D21 provisions for special hazards.	Performance Solution
Part E2 - Smoke Hazard Management			
E2D2	Applicable of requirements	<p>Part is not applicable to</p> <ul style="list-style-type: none"> open deck car parks open spectator stands a Class 8 electricity network substation with a floor area not more than 200m² storerooms, etc. less than 30m² sanitary compartments plant rooms or the like 	Noted
E2D3	General requirements	Noted	Noted
E2D4	Fire-isolated exits	N/A	N/A
E2D5	Buildings more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	N/A	N/A
E2D6	Buildings more than 25 m in effective height: Class 5, 6, 7b, 8 or 9b buildings	N/A	N/A
E2D7	Buildings more than 25 m in effective height: Class 9a buildings	N/A	N/A
E2D8	Buildings not more than 25 m in effective height: Class 2 and 3 buildings and Class 4 part of a building	<p>An automatic smoke detection and alarm system complying with Specification 20.</p> <p>A smoke detection system will be installed in accordance with Specification 20 Clause S20C4.</p> <p>Class 2</p> <p>The class 2 portion of the development is</p>	Compliance Readily Achievable

		<p>required to be provided with the following;</p> <ul style="list-style-type: none"> Smoke detection and alarm system in accordance with Specification 20 Clause S20C4. and n S20C3 within Sole-Occupancy Units. Building Occupant Warning System in accordance with S20C7. <p>Dry fire contractor to prepare Design Drawings and Design Certification at CC stage in accordance with the requirements of this Clause.</p>	
E2D9	Buildings not more than 25 m in effective height: Class 5, 6, 7b, 8 and 9b buildings	<p>Class 6</p> <p>The Class 6 portion of the development is required to be provided with the following;</p> <ul style="list-style-type: none"> Smoke detection and alarm system in accordance with Specification 20 Clause S20C4. and n S20C3 within Sole-Occupancy Units. Building Occupant Warning System in accordance with S20C7. 	Compliance Readily Achievable
E2D10	Buildings not more than 25 m in effective height: large isolated buildings subject to C3D4 <i>(NSW variation for Entertainment Venues)</i>	N/A	N/A
E2D11	Buildings not more than 25 m in effective height: Class 9a and 9c buildings	N/A	N/A
E2D12	Class 7a buildings	<p>The Class 7a building, including a basement, provided with a mechanical ventilation system in accordance with AS 1668.2, and comply with clause 5.5 of AS 1668.1.</p> <p>Mechanical Engineer to provide design certification to accompany services drawings at CC stage.</p>	Compliance Readily Achievable
E2D13	Basements (other than Class 7a buildings)	N/A	N/A
E2D14	Class 6 buildings - in fire compartments more than 2000 m²: Class 6 building (not containing an enclosed common walkway or mall serving more than one Class 6 sole-occupancy unit)	N/A	N/A
E2D15	Class 6 buildings - in fire compartments more than 2000 m²: Class 6 building (containing an enclosed common walkway or mall)	N/A	N/A
NSW E2D16	Class 9b – assembly buildings: all	N/A	N/A
NSW E2D17	Class 9b – assembly buildings: night clubs, discotheques and the like	N/A	N/A

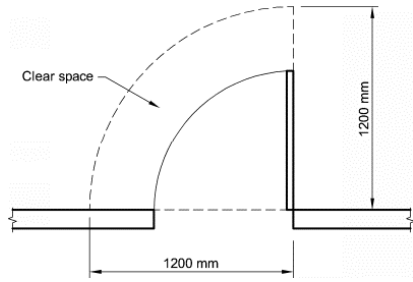
NSW E2D18	Class 9b – assembly buildings: exhibition halls, museums and art galleries	N/A	N/A
NSW E2D19	Class 9b – assembly buildings: other assembly buildings (not listed in NSW E2D16 to E2D18)	N/A	N/A
NSW E2D20	(NSW variation - This clause has deliberately been left blank.)	-	-
E2D21	Provisions of special hazards	Where EV charging stations are proposed to be installed within the carparking area, or solar panels are proposed to be installed the installation will be addressed as a special hazard via BCA Clause ED13 & E2D21 provisions for special hazards.	Performance Solution
Part E3 - Lift Installations			
E3D2	Lift installations Electric and electrohydraulic lifts must comply with the design requirements of BCA Specification 24.	Certification of lift design to be provided at CC stage.	Compliance Readily Achievable
E3D3	Stretcher facility in lifts	Suitable spatial allowance has been provided to accommodate a stretcher facility within the lift.	Complies
E3D4	Warning against use of lift in fire Warning signage is required at lift doors advising that lifts should not be used in the event of a fire.	Signage to be installed stating:  OR 	Compliance Readily Achievable
E3D5	Emergency lifts	N/A	N/A
E3D6	Landings	The architectural drawings detail compliant landings in accordance with BCA Clause E3D6	Complies
E3D7	Passenger lift types and their limitations Every passenger lift must be one of the types identified in Sections (1) of Clause E3D7 of the BCA and not rely on a constant pressure device for its operation if the lift car is fully enclosed.	No specific details provided at this stage regarding accessible features incorporated within the lift. The lift has a floor plate of 1100mm x 1400mm and therefore satisfies the spatial requirements for accessible lifts.	Complies
E3D8	Accessible features required for passenger lifts Every passenger lift must have accessible features where applicable as identified in Clause E3D8 of the BCA.	Please refer to 3 rd Party Access Report.	Noted
E3D9	Fire service control	N/A	N/A
E3D10	Residential care buildings	N/A	N/A
E3D11	Fire service recall control switch	N/A	N/A

E3D12	Lift car fire service drive control switch	N/A	N/A
Part E4 - Emergency Lighting, Exit and Warning Systems			
E4D2	Emergency lighting requirements Emergency lighting is to be provided throughout the building.	Emergency lighting is to be provided in: <ul style="list-style-type: none"> every fire-isolated stairway, fire-isolated ramp or fire-isolated passageway. Every passageway, hallway, corridor or the like, that is part of the path of travel to an exit. In every required non-fire isolated stairway Electrical engineer to provide design certification in accordance with BCA Clause E4D2 and AS2293.1-2018 to accompany the service drawings at CC stage.	Compliance Readily Achievable
E4D3	Measurement of distances	Noted	Noted
E4D4	Design and operation of emergency lighting Emergency lighting must comply with to AS2293.1	Emergency lighting details have been provided at this stage. However, it is assumed the building can readily comply. Electrical engineer to provide design certification in accordance with BCA Clause E4D2 and AS2293.1-2018 to accompany the service drawings at CC stage.	Compliance Readily Achievable
E4D5	Exit signs Exit signs are to be provided in accordance with Clause E4D5 of the BCA.	Exit signs must be clearly visible to person approaching the exit and must be installed on, above or adjacent to; <ul style="list-style-type: none"> A door providing direct egress from a storey to a stairway, passageway or ramp serving as a required exit. A door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space. A door serving as or forming part of a required exit in a storey required to be provided with emergency lighting. Electrical engineer to provide design certification in accordance with BCA Clause E4D5 and AS2293.1-2018 to accompany the service drawings at CC stage.	Compliance Readily Achievable
E4D6	Direction signs <i>(NSW variation for Entertainment Venues)</i> Where an exit is not readily apparent then exit signs with directional arrows must be installed in appropriate positions in corridors, hallways, lobbies and the like indicating the direction to a required exit	Directional signage details have not been provided at this stage however compliance is readily achievable. Electrical engineer to provide design certification in accordance with BCA Clause E4D6 and AS2293.1-2018 to accompany the service drawings at CC stage.	Compliance Readily Achievable

E4D7	Class 2 and 3 buildings and Class 4 parts: Exemptions	Noted	Noted
E4D8	Design and operation of exit signs 1. Exit signs are to operate in accordance with AS 2293.1. 2. Photo luminescent exit signs are to comply with Specification 25.	Electrical engineer to provide design certification in accordance with BCA Clause E4D8 and AS2293.1-2018 to accompany the service drawings at CC stage.	Compliance Readily Achievable
E4D9	Emergency warning and intercom systems	N/A	N/A
Section F: Health and Amenity			
Part F1 - External waterproofing, rainwater management and rising damp			
F1D1	Deemed-to-Satisfy Provisions (1) Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements F1P1 to F1P4 are satisfied by complying with F1D2 to F1D8. (2) Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.	A test report on the proposed wall system is to be provided. The test report must include the following information: (i) Name and address of the person supervising the test. (ii) Test report number. (iii) Date of the test. (iv) Cladding manufacturer's name and address. (v) Construction details of the test specimen, including a description, and drawings and details of the components, showing modifications, if any. (vi) Test sequence with the pressures used in all tests. (vii) For each of the static and cyclic pressure tests, full details of all leakages, including position, extent and timing.	Compliance Readily Achievable
F1D3	Stormwater drainage Stormwater drainage must comply with AS/NZS 3500.3.	Hydraulic drawings and design certification to be provided at CC stage.	Compliance Readily Achievable
F1D4	Exposed joints Exposed joints in the drainage surface on a roof, balcony, podium or similar horizontal surface part of a building must be protected in accordance with Section 2.9 of AS 4654.2; and not be located beneath or run through a planter box, water feature or similar part of the building. 	Structural engineer/architect to confirm compliance at CC stage.	Compliance Readily Achievable

F1D5	External waterproofing membranes Trafficable roofs, balconies, podiums or similar parts of a building require a waterproofing membrane complying with AS4654.1 and AS4654.2, which must be installed directly on the structural substrate.	No details provided at this stage. It is recommended that a suitably qualified waterproofing consultant is engaged to review all external waterproofing details. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F1D6	Damp-proofing Moisture from the ground must be prevented from reaching the lowest floor timber and the walls above the lowest floor joists, the walls above the dam proof course and the underside of a suspended floor constructed of a material other than timber, and the supporting beams or girders. Damp proof course must consist of a material that complies with AS/NZS 2904 or an impervious termite shield in accordance with AS 3660.1.	No details provided at this stage. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F1D7	Damp-proofing of floors on the ground A vapour barrier in accordance with AS2870 is to be provided beneath the basement floor slab.	No details provided at this stage. This matter to be addressed via detailed architectural drawings & BCA specification	Compliance Readily Achievable
F1D8	Subfloor ventilation	N/A	N/A
Part F2 - Wet areas and overflow protection			
F2D1	Deemed-to-Satisfy Provisions Where a Deemed-to-Satisfy Solution is proposed, Performance Requirements F2P1 and F2P2 are satisfied by complying with F2D2 to F2D4. Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.	No details provided at this stage. It is recommended that a suitably qualified waterproofing consultant is engaged to review all external waterproofing details. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F2D2	Wet area construction Water proofing of wet areas within a building to comply with AS 3740. Showers in Class 2 buildings must have a concrete or FC sheet structural substrate for floors and concrete, masonry, or FC sheeted walls. Concrete structural substrates for shower floors must be graded to a 1:80 fall, and the membrane directly applied to the structural substrate. The waterproofing requirements for multi-residential buildings also apply to commercial buildings.	No details provided at this stage. It is recommended that a suitably qualified waterproofing consultant is engaged to review all external waterproofing details. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F2D3	Rooms containing urinals	N/A	N/A
F2D4	Floor wastes The floor of each bathroom and laundry in each sole occupancy of the Class 2 and 3 building portions must have a floor waste and floors graded to the floor waste at 1:50.	No details provided at this stage. It is recommended that a suitably qualified waterproofing consultant is engaged to review all external waterproofing details. This matter to be addressed via detailed architectural drawings & BCA specification.	Compliance Readily Achievable

Part F3 - Roof and wall cladding			
F3D1	<p>Deemed-to-Satisfy Provisions</p> <p>Where a Deemed-to-Satisfy Solution is proposed, Performance Requirement F3P1 is satisfied by complying with F3D2 to F3D5.</p> <p>Where a Performance Solution is proposed, the relevant Performance Requirements must be determined in accordance with A2G2(3) and A2G4(3) as applicable.</p>	Noted	Noted
F3D2	Roof coverings	No details provided at this stage. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage	Compliance Readily Achievable
F3D3	<p>Sarking</p> <p>Sarking type materials used for weatherproofing of roofs and walls must comply with AS/NZS 4200 Parts 1 and 2.</p>	No details provided at this stage. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F3D4	<p>Glazed assemblies</p> <p>Windows, sliding doors with a frame, adjustable louvres, shopfronts and window walls with one piece framing in an external wall must comply with AS 2047 requirements for resistance to water penetration.</p>	No details provided at this stage. This matter to be addressed via detailed architectural drawings & BCA specification at CC stage.	Compliance Readily Achievable
F3D5	<p>Wall cladding</p> <p>External wall cladding must comply with one or a combination of the following:</p> <ul style="list-style-type: none"> Masonry, including masonry veneer, unreinforced and reinforced masonry: AS 3700 Autoclaved aerated concrete: AS 5146.3. Metal wall cladding: AS 1562.1. 	External wall claddings which are not captured under Clause F3D5 will require a performance solution to be documented by an appropriately qualified practitioner in accordance with <i>Clause A2G2 - Performance Solution</i> at CC stage.	Compliance Readily Achievable
Part F4 - Sanitary and other facilities			
F4D2	Facilities in residential buildings	Assessment of the architectural drawings demonstrate compliance with D4D2 and the facilities required for Class 2 sole-occupancy units.	Complies
F4D3	Calculation of number of occupants and fixtures	<p>Unless the premises are used predominantly by one sex, sanitary facilities must be provided on the basis of equal numbers of males and females.</p> <p>In calculating the number of sanitary facilities to be provided under F4D2 and F4D4, a unisex facility required for people with a disability (other than a facility provided under F4D12) may be counted once for each sex.</p>	N/A
F4D4	<p>Facilities in Class 3 to 9 buildings</p> <p>Toilet facilities are required in appropriate numbers based on the number of persons accommodated.</p>	<p>Sanitary facilities have been provided for a Food & Beverage Premises for 100 persons including staff.</p> <ul style="list-style-type: none"> 1 x unisex compartment for staff 1x unisex accessible compartment for patrons 	Complies

		<ul style="list-style-type: none"> 1 x closet pan male patrons (ambulant) 1 x closet plan for female patrons(ambulant) <table border="1"> <thead> <tr> <th>M</th> <th>F</th> <th></th> <th>Male CP</th> <th>Male Urinals</th> <th>Male WB</th> <th>Female CP</th> <th>Female WB</th> </tr> </thead> <tbody> <tr> <td>45</td> <td>45</td> <td>Patrons</td> <td>1</td> <td>1</td> <td>1</td> <td>2</td> <td>1</td> </tr> <tr> <td>5</td> <td>5</td> <td>Employees</td> <td>1</td> <td>0</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>	M	F		Male CP	Male Urinals	Male WB	Female CP	Female WB	45	45	Patrons	1	1	1	2	1	5	5	Employees	1	0	1	1	1	
M	F		Male CP	Male Urinals	Male WB	Female CP	Female WB																				
45	45	Patrons	1	1	1	2	1																				
5	5	Employees	1	0	1	1	1																				
F4D5	Accessible sanitary facilities	Please refer to 3 rd Part Access report.	Noted																								
F4D6	Accessible unisex sanitary compartments	N/A	N/A																								
F4D7	Accessible unisex showers	N/A	N/A																								
F4D8	Construction of sanitary compartments Where clear space between closet pan and doorway is less than 1.2m, doors must open outwards, slide or be readily removable from outside.	All hinged doors that swing inward to sanitary facilities and do not comply with achieving a 1200mm clearance to pan are required to be installed with lift-off hinges. 	Compliance Readily Achievable																								
F4D9	Interpretation: Urinals and washbasins	Each 600mm length of a continuous urinal trough is counted as 1 urinal.	Noted																								
F4D10	<i>(NSW variation - This clause has deliberately been left blank.)</i>	-	-																								
F4D11	Waste management	N/A	N/A																								
F4D12	Accessible adult change facilities	N/A	N/A																								
Part F5 - Room heights																											
F5D2	Height of rooms and other spaces Generally, a minimum ceiling height of 2.4m is required throughout.	Based on a limited assessment of the architectural sections, it appears that the floor to ceiling heights within the sole-occupancy units achieve a minimum of 2.4 m	Complies																								
Part F6 - Light and ventilation																											
F6D2	Provision of natural light Natural lighting aggregating 10% of room floor area is required as follows: <ul style="list-style-type: none"> To all habitable rooms in residential buildings. 	Assessment of the architectural drawings detail natural lighting being provided to all habitable room.	Complies																								
F6D3	Methods and extent of natural lighting	Based on a preliminary assessment of the architectural drawings including the elevations window dimensions will allow for 10% opening to that of the floor area of each room.	Complies																								
F6D4	Natural light borrowed from adjoining room	N/A – Borrowed light is not required.	N/A																								

F6D5	Artificial lighting The artificial lighting system must comply with AS/NZS 1680.0.	Design details and certification from an electrical engineer is required at CC stage.	Compliance Readily Achievable
F6D6	Ventilation of rooms (NSW variation for Public Health Regulation) Ventilation shall be provided throughout the building in by means of natural ventilation complying with Clause F6D7 or mechanical ventilation complying with the requirements of AS1668.2 as required by Clause F6D6 of the BCA.	Design details and certification from a mechanical engineer is required at CC stage.	Compliance Readily Achievable
F6D7	Natural ventilation	The architectural drawings submitted demonstrate suitable openings to provide natural ventilation in accordance with F6D9. No details of mechanical ventilation to rooms provided at this stage. Mechanical consultant to provide drawings and design certification for further assessment at CC stage.	Compliance Readily Achievable
F6D8	Ventilation borrowed from adjoining room	N/A – Borrowed ventilation is not required	N/A
F6D9	Restriction on location of sanitary compartments	Sanitary compartments have been located in positions permitted by BCA Clause F6D9.	Complies
F6D10	Airlocks	N/A	N/A
F6D11	Carparks Carparks must be provided with a system of mechanical ventilation complying with AS 1668.2	Sufficient details have not been provided at this stage. The Mechanical Consultant is to provided service drawings and design certification at Construction Certificate stage.	Compliance Readily Achievable
F6D12	Kitchen local exhaust ventilation	N/A	N/A
Part F7 - Sound transmission and insulation			
F7D2	Application of Part Applicable to Class 2, 3 and 9c buildings.	A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.	Compliance Readily Achievable
F7D3	Determination of airborne sound insulation ratings Construction required to have an airborne sound insulation rating must have the 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/NZS1276.1 or ISO717.1 using result from laboratory measurements or comply with Specification 28 of the BCA.	Details in relation to acoustic treatment have not been provided at this stage. Appropriate plans and specification are to be provided. A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.	Compliance Readily Achievable
F7D4	Determination of impact sound insulation ratings A floor required to have an impact sound insulation rating must have the required value for weighted normalised impact sound pressure level with spectrum adaptation term ($L_{n,w}+C_i$) determined in accordance with AS/ISO 717.2 using results from laboratory measurements or comply with Specification 28 of the BCA.	Details in relation to acoustic treatment have not been provided at this stage. Appropriate plans and specification are to be provided. A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.	Compliance Readily Achievable

	Walls that are required to have an impact sound insulation rating must be of discontinuous construction.		
F7D5	<p>Sound insulation rating of floors</p> <p>Floors separating sole occupancy units or separating sole occupancy units from a plant room, lift shaft, public corridor, public lobby or the like or parts of different classifications must have an $R_w + C_{tr}$ of not less than 50 and an $L_{n,w} + C_i$ of not more than 62.</p>	<p>Details in relation to acoustic treatment have not been provided at this stage.</p> <p>Appropriate plans and specification are to be provided.</p> <p>A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.</p>	Compliance Readily Achievable
F7D6	<p>Sound insulation rating of walls</p> <p>Walls must have an $R + C_i$ of not less than 50 if it separates sole occupancy units and an R_w of 50 if it separates a sole occupancy unit from a plant room, lift shaft, public corridor, public lobby or the like or parts of different classifications.</p> <p>Compliance with F7D4(2) is required if the wall separates a bathroom, sanitary compartment, laundry or kitchen in one sole occupancy unit from a habitable room (excluding a kitchen) in another adjoining unit or a sole occupancy unit from a plant room or lift shaft.</p> <p>Doors incorporated the walls that separate sole-occupancy units from a stairway, public corridor, public lobby or the like, provided the door assembly has an R_w not less than 30.</p> <p>Where a wall required to have sound insulation has a floor above, the wall must continue to the underside of the floor above or a ceiling that provides the sound insulation required for the wall.</p> <p>Where a wall required to have sound insulation has a roof above, the wall must continue to the underside of the roof above or a ceiling that provides the sound insulation required for the wall.</p>	<p>Details in relation to acoustic treatment have not been provided at this stage.</p> <p>Appropriate plans and specification are to be provided.</p> <p>A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.</p>	Compliance Readily Achievable
F7D7	<p>Sound insulation rating of internal services</p> <p>Services passing through more than one sole-occupancy unit must be separated from the rooms by construction with an $R_w + C_{tr}$ (airborne) not less than:</p> <ol style="list-style-type: none"> 40 if the adjacent room is a habitable room (other than a kitchen); or 25 if the adjacent room is a kitchen or non-habitable room. <p>Note if a stormwater pipe passes through a sole - occupancy unit it must be separated in accordance with (a) and (b).</p>	<p>Details in relation to acoustic treatment have not been provided at this stage.</p> <p>Appropriate plans and specification are to be provided.</p> <p>A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.</p>	Compliance Readily Achievable
F7D8	<p>Sound isolation pumps</p> <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 in relation to acoustic treatment have not been provided at this stage.</p> <p>Appropriate plans and specification are to be provided.</p> <p>A detailed assessment will need to be undertaken by a qualified acoustic consultant at the CC stage to verify compliance.</p>	Compliance Readily Achievable

Part F8 - Condensation management

F8D2	Application of part This part applies to a sole-occupancy unit of a Class 2 building or Class 4 part of a building.	Noted	Noted
F8D3	External wall construction Where a pliable building membrane is installed in an external wall it must: <ul style="list-style-type: none"> comply with AS/NZS 4200.1; and be installed in accordance with AS 4200.2; and be a vapour permeable membrane for climate zones 6, 7 and 8; and be located on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. 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. 	Sufficient details have not been provided at this stage. Pliable sarking membrane is required to be installed on the exterior side of the primary insulation layer of wall assemblies that form the external envelope of a building. 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. Suitable architectural drawings and BCA specification are to be provided for further assessment. It is recommended that a facade engineer is engaged to review all external wall details at CC stage.	Compliance Readily Achievable
F8D4	Exhaust systems An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of— <ul style="list-style-type: none"> 25 L/s for a bathroom or sanitary compartment; and 40 L/s for a kitchen or laundry. Exhaust from a kitchen must be discharged directly or via a shaft or duct to outdoor air. Exhaust from a bathroom, sanitary compartment, or laundry must be discharged— <ul style="list-style-type: none"> directly or via a shaft or duct to outdoor air; or to a roof space that is ventilated in accordance with F6.4. 	No mechanical details have been provided at this stage. Mechanical engineer to provide drawings and design certification for further assessment at CC stage.	Compliance Readily Achievable
F8D5	Ventilation of roof spaces Where an exhaust system covered by F6.3 discharges directly or via a shaft or duct into a roof space, the roof space must be ventilated to outdoor air through evenly distributed openings. Openings required above must have a total unobstructed area of 1/300 of the respective ceiling area if the roof pitch is greater than 22°, or 1/150 of the respective ceiling area if the roof pitch is less than or equal to 22°. 30% of the total unobstructed area required above must be located not more than 900 mm below the ridge or highest point of the roof space, measured vertically, with the remaining required area provided by eave vents.	No mechanical details have been provided at this stage. Mechanical engineer to provide drawings and design certification for further assessment at CC stage.	Compliance Readily Achievable
Section G: Ancillary Provisions			
Part G1- Minor Structures and components			
G1D2	Swimming pools	N/A	N/A

G1D3	Refrigerated chambers, strong rooms and vaults	N/A	N/A
G1D4	Outdoor play spaces	N/A	N/A
NSW G1D5	Provision for cleaning windows A safe manner of cleaning windows is to be provided as windows are located 3 or more storeys above ground level.	The windows must either be able to be cleaned wholly from within the building, or a method complying with the Construction Safety Act 1912 and Regulations is required.	Compliance Readily Achievable
Part G2 - Boilers, pressure vessels, heating appliances, fire places, chimneys and flues			N/A
Part G3 - Atrium Construction			N/A
Part G4 - Construction in Alpine Areas			N/A
Part G5 - Construction in Bushfire Prone Areas			N/A
Part G6 - Occupiable outdoor areas			N/A
Part G7 - Livable housing design			N/A
Section I: Special use buildings			
Part I1 - Class 9b buildings			N/A
Part I2 - Public Transport Buildings			N/A
Part I3 - Farm buildings and farm sheds			N/A
NSW Part I4 - Entertainment venues other than temporary structures and drive-in theatres			N/A
NSW Part I5 Temporary structures			N/A
NSW Part I6 Drive-in theatres			N/A
NSW Section J: Energy Efficiency Energy Efficiency for buildings requires buildings to reduce greenhouse gas emissions by efficiently using energy. A building's services must have features that facilitate the efficient use of energy. The discipline of Energy Efficiency with the BCA has become a specialised field where compliance with BCA Section J is to be certified with the issue of a Certificate of Compliance - Design from the relevant Services Engineer/Consultant. A third party ESD consultant is required to assess the requirements of Section J via separate assessment at Construction Certificate stage.			



14. Appendix A - Referenced Documentation

The following documentation was used in the preparation of this report:

Drawing No.	Title	Issue	Date	Drawn By
DA0000	COVER PAGE	DA1	20/11/2024	Platform Architects
DA0050	SITE ANALYSIS	DA1	20/11/2024	Platform Architects
DA0100	SITE PLAN	DA1	20/11/2024	Platform Architects
DA0400	DEMOLITION PLAN	DA1	20/11/2024	Platform Architects
DA1000	BASEMENT 2 FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1001	BASEMENT 1 FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1002	GROUND FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1003	FIRST FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1004	SECOND FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1005	THIRD FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1006	ROOF FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA1010	DRIVEWAY PLAN AND SECTIO	DA1	20/11/2024	Platform Architects
DA1950	ADAPTABLE & POST-ADAPTA FLOOR PLAN	DA1	20/11/2024	Platform Architects
DA2000	NORTH / SOUTH ELEVATION	DA1	20/11/2024	Platform Architects
DA2002	EAST / WEST ELEVATION	DA1	20/11/2024	Platform Architects
DA2100	STREETSCAPE ELEVATIONS	DA1	20/11/2024	Platform Architects
DA3000	SECTIONS A+B	DA1	20/11/2024	Platform Architects
DA4000	WINDOW SCHEDULE - SHEET	DA1	20/11/2024	Platform Architects
DA4001	WINDOW SCHEDULE - SHEET	DA1	20/11/2024	Platform Architects



15. Appendix B - Statutory Fire Safety Measures

Schedule of Statutory Fire Safety Measures

Measure	Standard of Performance
Access Panels, Doors and Hoppers to Fire Resisting Shafts	BCA 2022 Clause C4D14 and tested prototypes (AS 1530.4 - 2014)
Automatic Fire Detection and Alarm System (<i>Smoke Detection System</i>)	BCA 2022 S20C4 and AS 1670.1 - 2018
Automatic Fire Detection and Alarm System (<i>Smoke Alarm System</i>)	BCA 2022 S20C3 and AS 3786 - 2014
Automatic Fire Suppression Systems (<i>Residential Sprinkler System</i>)	BCA 2022 Specification 17 and AS211.1-2017, AS2118.4 - 2012 or FPAA101D - 2018 or FPAA101H - 2018
Building Occupant Warning System	BCA 2022 S20C7 and AS 1670.1 - 2018
Emergency Lighting	BCA 2022 Clause E4D2, E4D4 and AS/NZS 2293.1 - 2018
Exit Signs	BCA 2022 Clause E4D5, NSW E4D6, E4D7, E4D8 and AS/NZS 2293.1 - 2018
Fire Alarm Monitoring System	BCA 2022 S20C8 and AS 1670.3 - 2018
Fire Doors	BCA 2022 Specification 12 and AS/NZS 1905.1 - 2015
Fire Engineering Performance Solution Report	Fire Engineering Performance Solution Report prepared by Revision Dated
Fire Hydrants Systems	BCA 2022 Clause E1D2 and AS2419.1-2021
Fire Seals Protecting Opening in Fire Resisting Components of The Building	BCA 2022 Clause C4D15, Specification 13, AS 1530.4 - 2014, AS 4072.1 - 2005 and installed in accordance with the tested prototype.
Hose Reel System	BCA 2022 Clause E1D3 and AS 2441 - 2005
Lightweight Construction	BCA 2022 Specification 6, Clause A2G3 and AS 1530.4 - 2014
Mechanical Air Handling System (<i>Carpark Mechanical Ventilation System</i>)	BCA 2022 Clause E2D12, Clause 5.5 of AS/NZ 1668.1 - 2015 and fans with metal blades suitable for operation at normal temperature may be used and the electrical power and control cabling need not be fire rated
Portable Fire Extinguishers	BCA 2022 Clause E1D14 and AS 2444 - 2001
Warning And Operational Signs	BCA 2022 Clauses, D2D22, NSW D3D24, D3D28, D4D7 E3D4, E3D11, E3D12, and E1D15

Note the fire safety schedule will need to be amended subject to the inclusion of a fire engineered performance solution.



16. Appendix C2D2 - Fire Rating Requirements

16.1. Type A Construction

Table 1 S5C11a: Type A construction: FRL of loadbearing parts of external walls

Distance from a <i>fire-source feature</i>	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 2 S5C11b: Type A construction: FRL of non-loadbearing parts of external walls

Distance from a <i>fire-source feature</i>	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 3 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
Loadbearing	90/–/–	120/– /–	180/– /–	240/–/–
Non-loadbearing	–/–/–	–/–/–	–/–/–	–/–/–

Table 4 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
Loadbearing or non-loadbearing	90/90/90	120/120/120	180/180/180	240/240/240



Table 5 S5C11e: Type A construction: FRL of loadbearing internal walls

Location	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 6 S5C11f: Type A construction: FRL of non-loadbearing internal walls

Location	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 7 S5C11g: Type A construction: FRL of other building elements not covered by Tables S5C11a to S5C11f

Building element	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



17. Appendix C2D10 - Non-combustible building elements

- (1) In a building required to be of Type A or B construction, the following building elements and their components must be non-combustible:
- (a) External walls and common walls, including all components incorporated in them including the facade covering, framing and insulation.
 - (b) The flooring and floor framing of lift pits.
 - (c) Non-loadbearing internal walls where they are required to be fire-resisting.
- (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—
- (a) a building required to be of Type A construction; and
 - (b) a building required to be of Type B construction, subject to C3D11, in—
 - (i) a Class 2, 3 or 9 building; and
 - (ii) a Class 5, 6, 7 or 8 building if the shaft connects more than 2 storeys.
- (3) A loadbearing internal wall and a loadbearing fire wall, including those that are part of a loadbearing shaft, must comply with Specification 5.
- (4) The requirements of (1) and (2) do not apply to the following:
- (a) Gaskets.
 - (b) Caulking.
 - (c) Sealants.
 - (d) Termite management systems.
 - (e) Glass, including laminated glass, and associated adhesives, including tapes.
 - (f) Thermal breaks associated with—
 - (i) glazing systems; or
 - (ii) external wall systems, where the thermal breaks—
 - (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.
 - (g) Damp-proof courses.
 - (h) Compressible fillers and backing materials, including those associated with articulation joints, closing gaps not wider than 50 mm.
 - (i) Isolated—
 - (i) construction packers and shims; or
 - (ii) blocking for fixing fixtures; or
 - (iii) fixings, including fixing accessories; or
 - (iv) acoustic mounts.
 - (j) Waterproofing materials applied to the external face, used below ground level and up to 250 mm above ground level.
 - (k) Joint trims and joint reinforcing tape and mesh of a width not greater than 50 mm.
 - (l) Weather sealing materials, applied to gaps not wider than 50 mm, used within and between concrete elements.
 - (m) Wall ties and other masonry components complying with AS 2699 Part 1 and Part 3 as



appropriate and associated with masonry wall construction.

(n) Reinforcing bars and associated minor elements that are wholly or predominately encased in concrete or grout.

(o) A paint, lacquer or a similar finish or coating.

(p) Adhesives, including tapes, associated with stiffeners for cladding systems.

(q) Fire-protective materials and components required for the protection of penetrations.

(5) The following materials, when entirely composed of itself, are non-combustible and may be used wherever a non-combustible material is required:

(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.

(i) Ceramic.

(j) Natural stone.

(k) Copper.

(l) Zinc.

(m) Lead.

(n) Bronze.

(o) Brass.



18. Appendix C2D11 - Early Fire Hazard Properties for Materials

Floor materials, floor coverings and wall and ceiling lining materials are required to comply with BCA prescribed fire hazard properties and AS5637.1-2015

Floor Linings and Floor Coverings	
General Non Sprinklered Areas	Minimum 2.2 (or 4.5 for Class 3 areas and 9a patient care areas) kw/m ² critical radiant heat flux and, a maximum smoke development rate of 750 percent minutes.
General Sprinklered Areas	Minimum 1.2 (or 2.2 for Class 3, 9a patient care, and 9c residential use areas) kw/m ² critical radiant heat flux
Fire Isolated Exits and Fire Control Rooms	Minimum 2.2 / (or 4.5 for Class 3, 9a and 9c areas) kw/m ² critical radiant heat flux
Lift Cars	Minimum 2.2 kw/m ² critical radiant heat flux

Wall Linings and Ceiling Linings	
Generally	Variously Group 1, 2, or 3 materials (more restrictive Group number for non-sprinklered areas, public corridors, health care corridors and other prescribed locations) when tested to AS/ISO 9705 or clause 3 of BCA Spec A2.4 and AS/NZ 3837
Fire Isolated Exits	Group 1 material when tested as above
Lift Cars	Group 1 or 2 materials when tested as above

In addition, in non-sprinklered areas, wall and ceiling linings must have a smoke growth rate index not more than 100 or an average specific extinction area less than 250m²/g.

Other than above, construction materials generally need to achieve as1530.3 early fire hazard indices requirements as follows:	
Generally	Spread of flame Index not > 9 Smoke developed index not > 8
Sarking	Flammability Index not > 5
Fire Isolated Exits and Fire Control Rooms	Spread of Flame Index 0 Smoke Developed Index not > 2 Sarking Flammability 0
Non Fire Isolated Stairs & Escalators and Auditorium Fixed Seating	Spread of Flame Index 0 Smoke Developed Index not > 5
Lifts	To AS 1735.2
Air Ducts	To AS4254



19. Appendix D3D29 - Protection of Openable Windows

Building Use	Openable Windows		
	<2m above surface beneath	>2m above surface beneath	>4m above surface beneath
Bedrooms	No restrictions	<p>Window located below 1.7m above bedroom floor:-</p> <ul style="list-style-type: none"> • Must be protected by device to restrict window opening OR screen with secure fittings; AND • No opening greater than 125mm; AND • Device and screen must resist outward horizontal action of 250N; AND • Have child resistant release if device or screen is able to be removed, unlocked or overridden; AND • If device or screen is able to be removed, unlocked or overridden minimum 865mm barrier required to protect window. <p>Note: No 865mm barrier required if device or screen is permanent and <u>cannot</u> be removed, unlocked or overridden</p> <p>Window located min. 1.7m above bedroom floor</p> <ul style="list-style-type: none"> • No restrictions 	Comments as per >2m above surface beneath
Other rooms (i.e. lounge, dining room etc)	No restrictions	No restrictions	<p>Barrier required</p> <ul style="list-style-type: none"> • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor
All other buildings	No restrictions	No restrictions	<p>Barrier required</p> <ul style="list-style-type: none"> • Min. 865mm above floor • No openings exceeding 125mm • No climbable elements between 150-760mm above floor