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United Cinemas, Lasso Road, Gregory Hills

BCA Assessment Report

Prepared for: United Cinemas Australia Pty Ltd
Project No: C487
13 December 2017

I N D E X

REPORT REVISION STATUS		
REVISION	**DATE**	**STATUS**
1	6 October 2017	Preliminary
2	24 October 2017	Updated design review
3a	13 December 2017	DA Plan review

I N D E X

Page No.

Signature ……..

Graham Scheffers
GRS Building Reports Pty Ltd
Accreditation No. 0364 (BPB)
Date: 13 December 2017

Executive Summary

The building works proposed comprise a Retail / Commercial (Entertainment & Cinema use) building located at Lot 601 Lasso Road, Gregory Hills.

The Retail / Commercial Development comprises a four (4) storey building that includes;

- Ground Floor - Take-way food outlets, various retail tenancies ranging from approximately 89m^2 to 506m^2 and central mall area with seating. This portion of the building is on the north-western part of the site. An Indoor Recreation tenancy with floor area of approximately 3100m^2 and carparking area forms part of the Ground Floor that is on the south-eastern part of the building.
- First Floor or Level 1 – Nine (9) cinemas with floor area of approximately 4359m^2 with two (2) adjacent Indoor Recreation tenancies of approximately 1335m^2 and 1605m^2 each. Shared kitchen and amenities are proposed. The First Floor is proposed to be accessed via a central ramp and two (2) lifts.
- Second Floor (Level 2) and Third Floor (Level 3) – The area above the Cinema foyer in the centre of the building extending from the north-eastern external wall to south-western external wall is the Biobox area along with a central office area. Beneath the tiered seating of both Cinema 1 and 7 is an intermediate floor that is accessed from Level 1, so that at these portions of the building the height is 4 storeys.

An upper deck carpark is also proposed that is separated from the adjacent Retail / Commercial (Entertainment & Cinema use) building.

The site is irregular in shape and has a main street frontage for the Retail Building to Lasso Road to the north-east. The portion of the site containing the Retail Building also has a street frontage to Steer Road to the south-west and to Lasso Road to the north-west. The carpark building is on a portion of the site with a street frontage to Steer Road to the south-west.

The site is subject to a previous Development Consent with the site plan as shown at Annexure E and the subject building is similar to Building B as shown on the previous Consent. It is understood the degree of changes to Building B necessitates that a new Development Application is to be lodged. The earlier Development Consent also includes Buildings A and C that are more than 6m from the subject buildings being assessed within this Report, therefore for the purposes of the BCA there is no comments made in relation to Buildings A and C.

An assessment of the proposed building works has been undertaken in accordance with the relevant provisions of the Building Code of Australia 2016 (BCA).

The Report at Table 3.1 provides details of the fire rating required for Type A Construction. Provisions where further clarification or documentation is necessary for submission with the Construction Certificate is detailed in Annexure A of this Report.

The Report includes the following Annexures:

1. Annexure A – BCA Clause by Clause Deemed-To-Satisfy Assessment (DtS) of the subject building.
2. Annexure B – Schedule of Essential Fire Safety Measures.
3. Annexure C – Indicative Population Numbers
4. Annexure D – Environmental Planning & Assessment Regulation 2000 – Schedule 3A extract.
5. Annexure E – Site Plan shows the buildings for a previous Development Consent for the site.

1. Introduction

1.1 Background

The building works proposed comprise a Retail / Commercial (Entertainment & Cinema use) building located at Lot 601 Lasso Road, Gregory Hills.

GRS Building Reports Pty Ltd has been engaged by United Cinemas to undertake a BCA Assessment Report for the subject building works for the purposes of developing the Design Drawings.

1.2 Aim

The aim of this Report is to:

1. Undertake an assessment of the proposed building works of the DA drawings in accordance with the relevant provisions of the Building Code of Australia 2016, (BCA), ie. Undertake a BCA Clause-by-Clause assessment as detailed in Annexure A.
2. Identify proposed Essential Fire Safety Measures applicable to the subject building as detailed in Annexure B.

1.3 Documentation

The following documentation was relied upon when preparing this Report:

- Building Code of Australia 2016, (BCA).
- Architectural documentation prepared by MM Atelier Architects drawings as follows:

Drawing No.	Title	Revision
DA00	Site Plan	F
DA10	Ground Floor Plan	F
DA11	Level 1 – Cinema Plan	F
DA12	Level 2 – Biobox Floor Plan	F
DA13	Roof Plan	F
DA14	Carpark Ground Floor Plan	F
DA15	Carpark Level 1Floor Plan	F
DA20	Elevation - Sheet 1	F
DA21	Elevation - Sheet 2	F
DA22	Carpark Elevations	F
DA31	Coloured Elevation – Sheet 1	F
DA32	Coloured Elevation – Sheet 2	F

1.4 Reporting Team

This Report was prepared on behalf of GRS Building Reports Pty Ltd by Graham Scheffers, an accredited Grade A1 Certifier (NSW BPB) and Building Code Consultant.

1.5 Limitations and Exclusions

The limitations of this report are as follows:

- The Report is based on the new works only for the Retail / Commercial building as detailed herein and is issued for the purpose of assisting with design development.
- The Accredited Certifier is to determine that the relevant documentation satisfies the BCA for the purposes of issuing a Construction Certificate. This BCA Report is an assessment of the DA architectural plans. The Report is not intended to provide verification that the entire design documents satisfy the BCA as this is beyond the scope of GRS Building Report Pty Ltd and must be undertaken for the Construction Certificate Application.

- The assessment of Buildings A and C as shown on the previous DA plan at Annexure E has not been undertaken including review / confirmation of any large isolated building provisions.

The following terms are based on BCA definitions;

- ***Entertainment Venue*** is as defined in the Environmental Planning and Assessment Regulation 2000, i.e ***entertainment venue;*** means a building used as a cinema, theatre or concert hall or an indoor sports stadium.
- ***Open Space*** means a space on the allotment, or a roof or similar part of a building adequately protected from fire, open to the sky and connected directly with a public road.
- ***Open Deck Carpark*** means a carpark in which all parts of the parking storeys are cross ventilated by permanent unobstructed openings in not fewer than 2 opposite or approximately opposite sides, and—
  (a) each side that provides ventilation is not less than 1/6 of the area of any other side; and
  (b) the openings are not less than ½ of the wall area of the side concerned.
- ***Public Corridor*** means an enclosed corridor hallway or the like which –
  a) serves as a means of egress from 2 or more sole occupancy units to a required exit from the storey concerned, or
  b) is required to be provided as a means of egress from any part of a storey to a required exit.
- ***Rise in Storeys*** means the greatest number of storeys calculated in accordance with C1.2.
- ***Sole Occupancy Unit (SOU)*** means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupant and includes-
  a) A dwelling; or
  b) A room or suite of rooms in a Class 3 building which includes sleeping facilities; or
  c) A room or suite of associated rooms in a Class 5, 6, 7, 8 or 9 building; or
  d) A room or suite of associated rooms in a Class 9c building, which includes sleeping facilities and any area for the exclusive use of a resident.

The Report does not address issues in relation to the following:

1. The structural adequacy of the building including the fire resistance levels of any building elements (unless specifically referred to).
2. The design, maintenance or operation of any electrical, mechanical, hydraulic or fire protection services.
3. Works outside the boundaries, building elements or services that extend outside the boundaries and works associated with external ancillary services, structures or civil works required by relevant authorities.
4. Development Consent conditions of approval issued by the Consent Authority.
5. Environmental Planning and Assessment Act, associated Regulations, Local Government Act and Regulations unless where nominated.
6. Work Health and Safety Act and Regulations.
7. WorkCover Authority requirements.
8. Water, drainage, gas, telecommunications and electricity supply authority requirements.
9. Council Policy relating to Access for People with Disabilities, the provisions of the Disability Discrimination Act, National Premises Standards as this is beyond the scope of this Report.
10. GRS Building Reports Pty Ltd cannot guarantee acceptance of this Report by the Statutory Authorities such as Local Council, Fire & Rescue NSW or other approval authorities.

2. Building Description

2.1 Building

The Development comprises a four (4) storey Retail / Commercial (Entertainment & Cinema use) building that includes;

- Ground Floor - Take-way food outlets, various retail tenancies ranging from approximately 89m^2 to 506m^2 and central mall area with seating. This portion of the building is on the north-western part of the site. An Indoor Recreation tenancy with floor area of approximately 3100m^2 and carparking area forms part of the Ground Floor that is on the south-eastern part of the building.
- First Floor or Level 1 – Nine (9) cinemas with floor area of approximately 4359m^2 with two (2) adjacent Indoor Recreation tenancies of approximately 1335m^2 and 1605m^2 each. Shared kitchen and amenities are proposed. The First Floor is proposed to be accessed via a central ramp and two (2) lifts.
- Second Floor (Level 2) and Third Floor (Level 3) – The area above the Cinema foyer in the centre of the building extending from the north-eastern external wall to south-western external wall is the Biobox area along with a central office area. Beneath the tiered seating of both Cinema 1 and 7 is an intermediate floor that is accessed from Level 1, so that at these portions of the building the height is 4 storeys.
- An upper deck carpark is also proposed that is separated from the adjacent Retail / Commercial (Entertainment & Cinema use) building.

2.2 Classification

For the purposes of the BCA, the building is classified as follows:

- Class 6 (Retail)
- Class 7a (Carparking)
- Class 9b (Cinemas & Entertainment)

2.3 Climate Zone (energy efficiency)

Development Site is in Energy Efficiency Zone 6.

2.4 Rise in Storeys

The Retail / Commercial (Entertainment & Cinema use) building has a rise in storeys of four (4).

The Carpark building has a rise in storeys of one (1).

2.5 Type of Construction

The Retail / Commercial (Entertainment & Cinema use) building is required to be of Type A Construction.

The Carpark building is required to be of Type C Construction.

2.6 Effective Height

The buildings have an effective height of less than 25m.

2.7 Floor Area / Volume

Maximum size of fire compartment.

Classification		**Type A**
9b	Max floor area	8,000m²
	Max volume	48,000m³
6 or 7a	Max floor area	5,000m²
	Max volume	30,000m³

2.8 Fire Source Feature

The distances to the nearest Fire Source Features in relation to the Retail / Cinema building is estimated to be:

- North-eastern - > 6.0 metres to far side of Lasso Road.
- South-western - > 6.0 metres to far side of Steer Road from Retail / Cinema part.
- South-western - < 6.0m to adjacent Carpark building from Indoor Recreation part.
- South-eastern - > 6.0 metres to adjacent Carpark building from Retail / Cinema part.
- South-eastern - > 6.0 m to adjacent buildings, i.e. Buildings B & C (See Annexure E)
- North -western - > 6.0 metres to far side of Lasso Road.

The distances to the nearest Fire Source Features in relation to the Carpark building is estimated to be:

- North-eastern - 3.0 metres or greater to adjacent Retail / Cinema building.
- South-western - > 3.0 metres to far side of Steer Road.
- South-eastern - > 3.0 m to adjacent buildings, i.e. Buildings B & C (See Annexure E)
- North-western - > 3.0 metres to adjacent Retail / Cinema building.

3. BCA Assessment

An assessment of the proposed building has been undertaken in accordance with the provisions of the Building Code of Australia 2016, (BCA). Provisions where further clarification or documentation is necessary for submission with the Construction Certificate (CC) is detailed in Annexure A of this Report. Where compliance with the BCA DtS provisions is not readily achieved, these issues may be included in a Building Solution (ie Alternative Solution) Report for consideration at the CC Stage.

3.1 Section C – Fire Resistance Levels

As a result of the proposed works, the Main Retail / Commercial building is required to be of Type A Construction as set out in Specification C1.1 and Table 3 of the BCA.

Clause C1.1 – Fire Resisting Construction: Building elements are required to contain a certain Fire Resistance Level (FRL) in accordance with Specification C1.1 and Table 3 of the BCA as follows:

BUILDING ELEMENT	Class 6	Class 7a or 9b
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is –		
For loadbearing parts-		
less than 1.5m	180/180/180	120/120/120
1.5m to less than 3m	180/180/120	120/90/90
3m or more	180/120/90	120/60/30
For non-loadbearing parts		
less than 1.5m	-/180/180	-/120/120
1.5 to less than 3m	-/180/120	-/90/90
3m or more	-/-/-	-/-/-
EXTERNAL COLUMN not incorporated in an external wall,		
Loadbearing parts	180/-/-	120/-/-
Non-loadbearing parts	-/-/-	-/-/-
COMMON WALLS & FIRE WALLS-	180/180/180	120/120/120
INTERNAL WALLS		
Between or bounding SOU's. Bounding public corridors, public lobby or the like–		
• Loadbearing parts	180/-/-	120/-/-
• Non-loadbearing parts	-/-/-	-/-/-
Fire resisting Lift and stair shafts –		
• Loadbearing parts	180/120/120	120/120/120
• Non-loadbearing parts	-/120/120	-/120/120
Ventilation, pipe, garbage and like shafts not used for hot products of combustion –		
• Loadbearing parts	180/120/120	120/90/90
• Non-loadbearing parts	-/120/120	-/90/90
OTHER LOADBEARING INTERNAL WALLS AND COLUMNS		
Internal walls & columns, except in storey below roof	180/-/-	120/-/-
FLOORS	180/180/180	120/120/120
ROOFS	180/60/30	120/60/30

Table 3.1 – Fire Resistance Levels

The following additional information is provided:

(a) External walls must be of non-combustible construction. Attachments to external walls, such as linings proposed for decorative purposes only to satisfy BCA Specification C1.1 as detailed in Annexure A.

(b) Internal loadbearing walls (including loadbearing shafts) must be of concrete of masonry construction.

(c) Non-loadbearing walls required to have an FRL must be non-combustible construction.

(d) Roof need not have an FRL where the building is sprinkler protected, or its covering is non-combustible and the ceiling immediately below the roof has a resistance to the incipient spread of fire to the roof space of not less than 60 minutes.

(e) In the storey immediately below the roof, internal columns and internal walls (other than shaft walls) may have an FRL of 60/60/60.

(f) Fire-isolated shafts must be enclosed at the top and bottom by construction having an FRL of not less than that required for the walls of a non-loadbearing shaft in the same building, except that this does not apply if the top of the shaft extends beyond the roof covering, other than one enclosing a fire-isolated stair.

As a result of the proposed works, the Carpark building is required to be of Type C Construction as set out in Clause C1.1, Specification C1.1 and Table 5 of the BCA. Building elements are required to contain a certain Fire Resistance Level (FRL) as follows:

BUILDING ELEMENT	**Class 7a**
EXTERNAL WALL (including any column and other building element incorporated therein) or other external building element, where the distance from any fire-source feature to which it is exposed is –	
Less than 1.5m	90/90/90
1.5m to less than 3m	90/60/60
3m or more	-/-/-
EXTERNAL COLUMN not incorporated in an external wall, where the distance from any fire-source feature to which it is exposed is –	
Less than 1.5m	90/-/-
1.5m to less than 3m	60/-/-
3m or more	-/-/-
COMMON WALLS & FIRE WALLS-	90/90/90
INTERNAL WALLS	
Between or bounding SOU's. Bounding public corridors, public lobby or the like–	-/-/-
Bounding a stair if required to be fire rated –	60/60/60
ROOFS	-/-/-

Table 3.2 – Fire Resistance Levels

The following additional information is provided:

(a) External walls required to have an FRL need only be tested from outside to satisfy the FRL.

(b) An open deck carpark may have reduced FRL's as detailed in Table 5.2 of BCA Specification C1.1.

Recommendation: That the architectural and structural engineering plans, specification and certification is to confirm the above fire rating is achieved and included in the design documentation.

ANNEXURE A

Building Code of Australia 2016
Deemed-To-Satisfy Assessment (Clause by Clause)
(Class 2-9 Buildings)

Classification of Building or Part:	6, 7a, 9b
Rise in Storeys:	Four (4) - Retail Building One (1) – Carpark Building
Type of Construction:	Type A - Retail Building Type C - – Carpark Building
Effective height	< 25m

Key:

Complies The building works proposed generally complies with this Clause or there are no significant deficiencies.

DNC The works proposed does not comply with this Clause or proposed works impacts on the existing building.

? Further documentation/ investigation required.

CR Certification or verification required that the building works proposed complies with this Clause prior to BCA Certification being issued.

(**Note: BCA Certification will require Structural, architectural and services drawings, specification with certification nominating all relevant BCA Clauses and the Australian Standards including the year of the standard**).

NA This Clause is not applicable to the building works proposed or to this assessment.

Noted The contents of this Clause is noted for reference.

AS. Alternative Solution using Performance Requirements is relevant in relation to the works proposed.

Section A	**General Provisions**	
Part A3.2	**CLASSIFICATION**	6, 7a, 9b

Section B	**Structure**	**Comment**
Part B1	**STRUCTURAL PROVISIONS**	
B1.1	**Resistance to actions** Resistance must be greater than the most critical action resulting from different combinations of actions, where • The most critical action effect on a building is in accordance with B1.2 and general design procedures of AS/NZS1170.0-2002; and • The resistance of a building is determined in accordance with B1.4.	CR subject to Structural Engineering drawings, specification and certification of the works.

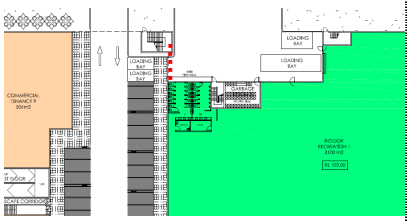
Section B	Structure	Comment
B1.2	**Determination of individual actions** The magnitude of individual actions must be determined in accordance with various action, eg: • Permanent actions, including design of building, unit weight of the construction, AS/NZS1170.1-2002; and • Imposed actions, including known imposed loads, construction activity actions, AS/NZS1170.1-2002; and • Wind, snow and earthquake actions, including applicable annual probability of design event determined by Tables B1.2a & B1.2b, AS/NZS1170.2-2011, AS1170.3-2003, AS1170.4-2007; and • Other actions detailed	CR subject to Structural Engineering drawings, specification and certification of the works.
B1.3	Clause deleted.	
B1.4	**Determination of Structural Resistance of Materials and Forms of Construction** • Masonry: AS3700-2011, • Concrete Construction: AS3600-2009 • Steel construction – Steel structures: AS4100-1998, Cold formed structures: AS/NZS4600-2005, Residential & low-rise steel: NASH Standard. • Composite steel structures: AS2327.1-2003 • Aluminium construction: AS/NZS1664.1-1997 or AS/NZS1664.2-2007 • Timber construction – design of structures: AS1720.1-2010, Timber structures: AS1684 Parts 2, 3 or 4-2010. • Piling: AS2159-2009 • Glazing Assemblies – AS2047–2014 or AS1288-2006. • Termite risk management – AS3660.1-2000 (or 2014) • Roof construction – Plastic sheeting: AS/NZS1562.3-1996, AS/NZS4256 Parts 1, 2, 3-1994 & 5-1996; Roofing tiles AS2049-2002, AS2050-2002; Cellulose cement corrugated sheets: AS/NZS 2908.1-2000 with safety mesh to AS/NZS1562.3-1996; Metal Roofing: AS1562.1-1992 and Asphalt shingles: ASTM D3018-90-1994 (Class A) • Particleboard structural flooring: AS1860.2 -2006 • Garage doors & other large access doors in openings not > 3m in height determined as being in wind region C or D in accordance with AS/NZS 1170.2-2011, AS/NZS4504-2012 • Lift Shafts (where FRL not required): must be enclosed with non-perforated materials, and be of non-brittle material and glazing must comply with Table B1.4 or not fail the deflection criteria required by Cl 6 (c) (iii) of Specification C1.8.	CR subject to Architectural and Structural Engineering drawings, specification and certification of the works.
B1.5	**Structural Software** Must comply with ABCB protocols. Only applies to structural software used to design steel or timber trussed roof and floor systems and framed building systems for buildings within certain geometric limits. Does not apply to design software for individual frame members such as electronic tables similar to those provided in AS1684.	Noted

B1.6	**Construction of buildings in Flood Hazard Areas** Class 2, 3, 9a (health-care), 9c (aged care) or Class 4 part of a building in a flood hazard area must comply with ABCB Standard for Construction of Buildings in Flood Hazard Areas.	Noted

Section C	**Fire Resistance**	**Comment**
Part C1	**FIRE RESITANCE AND STABILITY**	
C1.1	**Type of Construction**	Type A (Retail Building) and Type C (Carpark Building)
C1.2	**Calculation of Rise In Storeys**:- Greatest number of storeys at any part of the external walls of the building above the finished ground at that part	Four (4) - Retail Building and One (1) - Carpark Building
C1.3	**Buildings of Multiple Classification:-** Type of construction required is determined by the classification of the top storey applies to all storeys	Noted.
C1.4	**Mixed Types of Construction:-** Separation of the building by a fire wall (complying with clause C2.7) may permit mixed type of construction for a building.	Noted. Entire building to satisfy FRL's required for designated Type of Construction, i.e. Type A Construction for Retail Building and Type C for Carpark Building.
C1.5	**Two Storey Class 2, 3 or 9c buildings:-** A building with a rise in storeys of 2 may be Type C construction where: • Each SOU of Class 2 or 3 building has access to at least 2 exits; or its own access to road or open space; • Class 9c building not exceeding 3,000m^2 FA	NA
C1.6	**Class 4 Parts of Buildings**:- Class 4 part of a building requires the same FRL and fire separation from the remaining parts as a Class 2 part in similar circumstances.	NA
C1.7	**Open Spectator Stands & Indoor Sports Stadiums**:- May be of Type C Construction if: • Only 1 tier of seating; • Non-combustible material; and • Only sanitary facilities/change rooms below the tiers.	NA
C1.8	**Lightweight Construction**:- May be used for fire rating of elements if it is in accordance with Specification C1.8.	CR
C1.10	**Early Fire Hazard Properties**:- Materials and assemblies used in the building must comply with the requirements of Specification C1.10.	CR. Details of internal floor, wall and ceilings required to confirm details of Fire Hazard Properties.
C1.11	**Performance of External Walls**:- Concrete external walls that could collapse as complete panels in building of 2 storeys or less must comply with Specification C1.11.	NA. Building has Rise in Storeys > 2.

<table>
<tr><th>Section C</th><th>Fire Resistance</th><th>Comment</th></tr>
<tr><td>C1.12</td><td>Non-Combustible Material – the following materials may be used where non-combustible materials are required:
Plasterboard;
Perforated gypsum;
Fibrous plaster sheeting;
Fire reinforced cement sheeting;
Pre-finished metal sheeting;
• Bonded laminate materials</td><td>Noted</td></tr>
<tr><td>C1.13</td><td>Fire Protected Timber: Concession – Fire-protected timber may be used in a Class 2, 3 or 5 building where an element is required to be non-combustible if;
The building is a separate building, or a part of a building separated from the remainder by a Fire Wall or similar construction; and
The building has an effective height not more than 25m, and.
The building has a sprinkler system throughout (as per E1.5), and
Any insulation installed in the cavity of the timber element required to have an FRL is non-combustible, and
Cavity barriers are protected in accordance with Spec C1.13.</td><td>Noted</td></tr>
<tr><td>Part C2</td><td colspan="2">FIRE RESISTANCE</td></tr>
<tr><td>C2.2</td><td>General Floor Area Limitations:<table><tr><th colspan="2">Classification</th><th>Type A</th></tr><tr><td rowspan="2">9b</td><td>Max floor area</td><td>8,000m²</td></tr><tr><td>Max volume</td><td>48,000m³</td></tr><tr><td rowspan="2">6 or 7a</td><td>Max floor area</td><td>5,000m²</td></tr><tr><td>Max volume</td><td>30,000m³</td></tr></table>Table C2.2 – Floor Area and Volume Limitations</td><td>CR / AS. Size of fire compartment to satisfy limitations set out in Table C2.2 based on Cinema and remainder of First Floor tenancies being fire separated. Also Ground Floor to be fire separated from levels above. Details to be confirmed at CC Stage</td></tr>
<tr><td>C2.3</td><td>Large Isolated Buildings:-
Larger fire compartments may be permissible in certain circumstances. Buildings closer than 6m are regarded as one building and must collectively comply with clause C2.3.</td><td>NA. Based on building being divided into fire compartments to satisfy BCA Table C2.2.</td></tr>
<tr><td>C2.4</td><td>Requirements for open space:-
Open space and vehicular access capable of supporting emergency vehicles, area 6m wide and not more than 18m from the building.</td><td>NA. Based on building being divided into fire compartments to satisfy BCA Table C2.2.</td></tr>
<tr><td>C2.5</td><td>Class 9a and class 9c buildings:-
Requirements for compartmentation for the control of smoke and fire within health care and aged care building must comply with the requirements of this clause and also specification C2.5</td><td>NA</td></tr>
</table>

Section C	Fire Resistance	Comment
C2.6	**Vertical separation of openings in external walls**:- Applicable to buildings of Type A construction and not sprinkler protected. Openings in external walls of a building of Type A Construction must be separated from openings in the storey next below either by 900mm high vertical spandrel panels or 1100mm horizontal projections no less than 450mm beyond the relevant openings. Spandrel construction must be fire rated to achieve an FRL of 60/60/60.	NA to Retail / Cinema Building if sprinkler protected throughout.
C2.7	**Separation by fire walls**:- A part of a building separated by a fire wall may be considered a separate building for the purposes of Parts C, D and E. A part of a building separated from the remainder of the building by a fire wall may be treated as a separate fire compartment if it is constructed in accordance with Cl C2.7 (a) and Specification C1.1 and extends to the underside of a floor having an FRL required for a fire wall or the roof covering.	Noted
C2.8	**Separation of classifications in the same storey**:- Building parts to be separated in the storey by a fire wall or each building element to adopt the higher FRL as required in Specification C1.1 of the BCA.	CR / AS. Retail and Ground Floor Indoor Recreation part of Building must achieve an FRL of at least 180/180/180 throughout in lieu of 120/120/120 for Ground Floor Indoor Recreation and undercover carparking unless the Indoor Recreation and carparking is fire separated from the Retail area by a fire wall with construction having an FRL of 180/180/180. Details to be confirmed at CC Stage
C2.9	**Separation of classifications in different storeys**:- The separating floors must have an FRL; • Type A Construction – not less than that required for the lower storey use. • Type B or C Construction – if one of the adjoin parts of Class 2, 3 or 4 a) Resistance to the incipient spread of fire to the space above itself of not less than 60 minutes, or b) Construction having an FRL of 30/30/30, or c) Ceiling with fire protective covering (eg 13mm fire grade plasterboard).	CR / AS. First Floor is proposed to be fire separated from the Ground Floor Retail area by a floor with construction having an FRL of 180/180/180 and openings protected. Otherwise the Ground Floor Retail and First Floor Cinema / Indoor Recreation tenancy areas of Building must achieve an FRL of at least 180/180/180 throughout in lieu of 120/120/120 for First Floor Cinema / Indoor Recreation. Details to be confirmed at CC Stage
C2.10	**Separation of lift shafts**:- Lift to be enclosed in a fire rated shaft when connecting more than 2 storeys (or more than 3 storeys in a sprinklered building).	CR. Passenger lift shaft connects 3 storeys therefore must achieve an FRL of at least 180/180/180 (Retail), 120/120/120 (Cinemas), except where the building is sprinkler protected throughout. Details to be in CC documentation
C2.11	**Stairways and lifts in one shaft**:- Not to be in the same shaft if either is to be fire isolated.	Complies
C2.12	**Separation of equipment**:- Lift motors, emergency generators, smoke control exhaust fans, boilers or batteries are to be enclosed by construction achieving an FRL of 120/120/120.	CR. Details to be confirmed at CC Stage

Section C	Fire Resistance	Comment
C2.13	**Electricity supply system**:- If the electrical substation is to be located within the building it must be separated from another part of the building by construction achieving an FRL of 120/120/120 with self-closing -/120/30 fire doors. The main switchboard that houses the emergency equipment operating in emergency mode must be separated from another part of the building by construction achieving an FRL of 120/120/120 with self-closing -/120/30 fire doors.	CR. Details to be confirmed at CC Stage
C2.14	**Public corridors in Class 2 & 3 buildings**:- Public corridor >40m long to be divided into intervals of <40m by smoke proof walls complying with C2.5 (d).	NA
PART C3	**PROTECTION OF OPENINGS**	
C3.2	**Protection of openings in external walls**:- Openings in external walls that are required to have an FRL are to be protected if they are exposed to a fire source feature in accordance with Clause C3.4 if: • Wall is less than 3m from a side or rear boundary; • Less than 6m from the far boundary of a road, if not located in a storey at or near ground level; or • Less than 6m from another building on the same allotment	CR / AS. Any openings in the south-western façade of the Indoor Recreation portion of the building that is within 6.0m of the Carparking Building must be protected in accordance with BCA Clause C3.4. This also applies to the continuation of the south-western façade at Ground Floor Level where the Level 1 extends over the driveway and carparking area that is between the Ground Floor retail and Indoor Recreation tenancy. For the purposes of the BCA, this is deemed an opening that is within 6.0m of the Carparking Building and must be protected in accordance with BCA Clause C3.4. Details to be confirmed at CC Stage
C3.3	**Separation of openings in different fire compartments**:- External walls of different fire compartments are to be separated by a fire wall with FRL not less than 60/60/60 and any openings within the prescribed distances to be protected in accordance with Clause C3.4.	CR / AS. Potential fire wall separating retail / carparking area from adjacent Indoor Recreation tenancy has external wall with area required to be open for vehicle movement. 
C3.4	**Acceptable methods of protection**:- Fixed fire rated glass; self-closing or automatic closing windows with drenchers; automatic fire shutters; automatic closing fire rated windows. Doors to be self-closing or automatic closing.	CR / AS. Method of protecting openings to be confirmed at CC Stage.

Section C	Fire Resistance	Comment
C3.5	**Doorways in fire walls**:- Doorways in a fire wall (that is not part of an horizontal exit) must not exceed ½ the length of the fire wall, and • Have the FRL required for the fire wall, and • Be self-closing or automatic closing upon activation of a smoke/fire detector	CR / AS. Fire walls to have doorways protected as required. Details to be provided at CC Stage.
C3.6	**Sliding fire doors in fire walls**:- If open when the building is in use they must fail safe in the closed position and be provided with warning devices and flashing lights	CR / AS. Fire walls to have doorways protected as required. Details to be provided at CC Stage.
C3. 7	**Protection of doorways in horizontal exits**:- To be self-closing or automatic closing fire doors	Noted. Nil fire walls proposed that incorporate horizontal exits at this stage.
C3.8	**Openings in fire isolated exits**:- To be -/60/30 self-closing fire doors Windows in external walls of fire-isolated exits to be protected in accordance with C3.4 if within 6.0m and exposed to another opening in the same building.	CR. Stairs proposed as fire-isolated stairs to be provided with fire doors having an FRL of -/60/30. Confirmation of any windows in these stairs to be provided if proposed. Details to be provided at CC Stage.
C3.9	**Service penetrations in fire Isolated exits**:- Fire isolated exits must not be penetrated by services other than electrical wiring permitted by clause D 2.7; mechanical ducting for pressurization systems; and water supply pipes for fire hydrants, etc.	CR. Stair proposed as fire-isolated exits must not contain services, except those required to serve the exit. Details to be provided at CC Stage.
C3.10	**Openings in fire isolated lift shafts**:- • Doors to be -/60/- fire doors in accordance with AS 1735.11; • Lift indicator panels to be constructed with -/60/60 backing if the lift exceeds 35,000mm^2	CR. If, required, lift landing doors and indicator panel to be fire rated to be confirmed at CC Stage.
C3.11	**Bounding construction Class 2, 3 and 4 buildings**:- Doors from sole occupancy units, and doors from rooms not within a SOU that open to an enclosed public corridor are to be: • -/60/30 for Type A construction; • tight fitting self-closing solid core doors not less than 35mm thick for Type B and C construction The path of travel from a sole occupancy unit must be protected if there is no alternative exit and passes an external wall of another sole occupancy unit or room.	NA
C3.12	**Openings in floors for services**:- To be enclosed in fire rated shaft with FRL in accordance with Specification C1.1	CR. Details to be confirmed at CC Stage
C3.13	**Openings in shafts**:- Openings to shafts must be protected with a self-closing -/60/30 fire door or hopper.	CR Details to be confirmed at CC Stage
C3.15	**Openings for service installations**:- Electrical, plumbing, mechanical ventilation shafts not to impair the FRL of fire rated building elements	CR. Details to be included in CC documentation.

Section C	Fire Resistance	Comment
C3.16	**Construction Joints**:- Fire retardant materials to be provided to construction joints to be identical with prototype tested in accordance with AS1530.4 to achieve the required FRL	CR. Details to be included in CC documentation.
C3.17	**Columns protected with lightweight construction to achieve an FRL**	CR. Details to be included in CC documentation.
Specification C1.1	**Fire Resisting Construction:-** The main retail / commercial building is required to be designed in accordance with Table 3 (Type A Construction) of the BCA. The carpark building is required to be designed in accordance with Table 5 or 5.2 (Type C Construction) of the BCA.	CR. See Section 3.1 of this Report. CR. Attachments not to impair fire resistance, timber linings to external walls may be attached to external fire rated walls if – • material is exempt under Cl C1.10 or complies with fire hazard properties of Spec C1.10; and • is not located near or directly above a required exit so as to make the exit unusable; and • does not otherwise constitute an undue rise of fire spread via the façade of the building. Details to be in CC documentation
Section D	**Access and Egress**	**Comment**
PART D1	**PROVISION FOR ESCAPE**	
D1.1	**Application of part**:- DTS provisions do not apply to internal parts of a SOU in Class 2, 3 or 4	Noted.
D1.2	**Number of exits required**:- Every building must have a least one exit from each storey, and a minimum of 2 exits are required in particular circumstances. Without passing through another sole occupancy unit every occupant of a storey or part must have access to either an exit, or at least 2 exits if 2 or more are required.	Complies
D1.3	**When Fire isolated exits are required**:- Generally, every required exit must be fire isolated if it connects, passes by or passes through: • more than 3 storeys of a class 2; • more than 2 storeys of a classes 3 to 9. And one additional storey may be included if it is solely for motor vehicles or other ancillary purposes.	CR. Retail Building - Fire-isolated stairs are not required if sprinkler protected throughout. However, if fire-isolated exits provided as proposed, will assist to satisfy BCA exit travel distance requirements. CR. Carpark Building – Fire-isolated stairs not required, although if provided will assist to satisfy BCA exit travel distance requirements.

Section C	Fire Resistance	Comment
D1.4	**Exit Travel Distances**:- Class 2, 3 buildings – Entrance doorway of SOU to be not more than 6m from an exit, or 6m from a point of choice between 2 exits. A single exit serving the storey at the level of egress to a road or open space may be 20m. Class 5 – 9 buildings. No point on a floor must be more than 20m from an exit or a point from which travel in different directions to 2 exits is available, in which case the maximum travel distance to 1 of those exits not to exceed 40m. Class 5/6 building – the distance to a single exit serving the storey at the level of access to a road or open space may be increased to 30m.	CR. Distance to exit/s or point of choice readily satisfied. Details to be included in CC documentation.
D1.5	**Distances between alternative exits**:- Exits required as alternative exits must be distributed as uniformly as possible; not less than 9m apart; not more than 60m apart (45m apart for class 2, 3 and 9a health care); located so alternative paths do not converge to less than 6m. This is to be measured having regard to: • 60m is measured through the point where a choice is available to alternative exits. • Exit is either a door opening to open space outside the building, or a door opening to a fire-isolated stair, or a door opening to a fire-isolated passageway.	CR. Floor plans require review for egress details so that distance between alternative exits is not more than 60m apart, i.e.:. • Carpark – Requires designated pedestrian exit points at Ground Floor. Details to be in CC documentation

Section C	Fire Resistance	Comment
D1.6	**Dimensions of exits**:- • Unobstructed height of an exit not less than 2m (1980mm for doorways); • 1m minimum width of a single exit; and increased where applicable for populations, eg; ➢ if the storey or mezzanine accommodates more than 100 persons & less than 200 persons the aggregate unobstructed width of the exit must not be less than 1m plus 250mm for every person in excess of 100, or ➢ if the storey or mezzanine accommodates more than 200 persons the aggregate unobstructed width of the exit must not be less than: - (i) 2m plus 500mm for every 60 persons (or part) in excess of 200 if egress is via a stair or ramp steeper than 1:12, or (ii) In any other case, 2m plus 500mm for every 75 persons (or part) in excess of 200 persons. ➢ for an *Entertainment Venue*, the aggregate width must be not less than 2 m plus 500 mm for every 50 persons or part in excess of 200 • door widths to be a minimum of: - ➢ 750mm clear width except 850mm clear unobstructed area (in accordance with AS 1428.1), or ➢ for an *Entertainment Venue* not less than 1.0m and not more than 3.0m. • width of exit must not diminish in direction of travel to an exit • required width of a stairway or ramp is to be measured clear of all obstructions and extend a minimum 2m above line of nosings or ramp • where one or more paths of travel merge in an *Entertainment Venue*, the width of the combined paths of travel must not be less than the sum of the required widths of those paths of travel, and the required widths of the paths of travel connecting the exits from the building to a public road or open space must comply with widths for sum of combined paths of travel.	CR/AS. Floor plans require details to show clear exit widths for doorways, stairways and passageways to suit the population for the various areas. **1. Cinema's** Part of Building used as Entertainment Venue (Cinema's) to include egress at least 1.0m wide including doorways, from individual Cinema's as follows: - • Cinema 1 –4.5m width proposed as required • Cinema's 2 to 5 – 2.5m each width proposed as required. • Cinema's 6 to 9 – 2m each width proposed as required In addition to these widths, where one or more paths of travel merge in an *Entertainment Venue*, the width of the combined paths of travel must not be less than the sum of the required widths of those paths of travel, i.e: • C2/C3 stair – External stair 2.0m as required. • C4/C5/C6 stair – External stair 2.0m proposed – 3.0m required. • C7/C8/C9 stair – External stair 2.0m proposed – 3.0m required. • Total Cinema Width – 12.5m proposed via stairs (tbc) - 20m required based on cinema total numbers. **2. Remainder of Building** Ground Floor Retail, Ground Floor Indoor Recreation, First Floor Indoor Recreation requires review based on: - • Egress travel distances to be provided to satisfy BCA Cl D1.4 & D1.5. • Widths to be based on Population Numbers that are to be confirmed.

Section C	Fire Resistance	Comment
D1.7	**Travel via fire isolated exits**:- Door must not discharge directly into fire isolated exit unless it is from public corridor, etc; SOU occupying all of the storey; or a sanitary compartment. Must discharge directly to the road or open space, and not pass within 6m of openings within the wall of the same building. If > 2 doors open into exit – pressurisation; or smoke lobbies to be provided. Each fire-isolated stairway or fire-isolated ramp must provide independent egress from each storey served and discharge directly, or by way of its own fire-isolated passageway— (i) to a road or open space; or (ii) to a point— (A) in a storey or space, within the confines of the building, that is used only for pedestrian movement, car parking or the like and is open for at least 2/3 of its perimeter; and (B) from which an unimpeded path of travel, not further than 20 m, is available to a road or open space; or (iii) into a covered area that— (A) adjoins a road or open space; and (B) is open for at least 1/3 of its perimeter; and (C) has an unobstructed clear height throughout, including the perimeter openings, of not less than 3 m; and (D) provides an unimpeded path of travel from the point of discharge to the road or open space of not more than 6 m.	CR/AS. Floor plans require details to show: - • Retail tenancies and cinemas must not open directly into a fire-isolated exit unless that cinema or retail tenancy occupies the entire storey and all tenancies on the same storey are a single lessee. Doors from First Floor Indoor Recreation, Cinema No. 1 open direct to exit in lieu of via a lobby, airlock or the like • Discharge from fire-isolated stairs where passing within 6.0m of a wall, window or door opening of the same building, the wall must have an FRL of at least 60/60/60 and any door / window openings must be protected internally in accordance with BCA Clause C3.4. • Central Egress corridor from Ground Floor retail & adjacent stair from Cinema discharges beneath building. Path of travel from stair/corridor exit must not pass unprotected openings and must reach open space within 20m if area is 2/3 open.
D1.8	**External stairways or ramps in lieu of a fire isolated exit**:- External stairs may be used instead of a fire isolated exit in buildings under 25m in effective height.	NA
D1.9	**Travel by non fire isolated stairways or ramps**:- • must provide continuous means of travel by its own flights of stairs to the level at which egress to a road or open space is provided; • Class 2, 3 or 4: distance between SOU and point of egress to road/open space not to exceed 60m, or 30m if Type C construction. • Non fire-isolated stair in a Class 2 building must discharge not more than 15m from an exit door leading to open space. • Class 5-9: stair to discharge at a point no more than 20m from a door providing egress to a road or open space; or 40m from one of 2 exits if travel is in opposite directions. Total distance travelled – 80m maximum.	CR. To be reviewed as plans are further developed. Note: Max travel distance from any point if using non fire-isolated stairs is 80m. CR/AS. Review required for additional storey beneath & at rear of Cinema 1 and 7. To satisfy DtS provisions would need to have access to fire-isolated stair at level of proposed floor. If using internal stair to gain access to fire-isolated stair, then this would need an Alternative Solution.

Section C	Fire Resistance	Comment
D1.10	**Discharge from exits**:- • Not to be blocked at the point of discharge • Path of travel to the road to be via a stair or by a ramp with gradients no steeper than 1:8 (or 1:14 of ramp required for disabled access). • In a Class 9b building used as an *Entertainment Venue*, at least half of the required number of exits from each storey or mezzanine, and at least half of the aggregate width of such exits must discharge otherwise than through the main entrance, or the area immediately adjacent to the main entrance of the building.	CR. Bollard / column or other protection required to doors opening to or from carpark egress stair. Egress path to reach open space must have clear 1.0m width. CR/AS Egress via carparking spaces to be reviewed to ensure 1.0m width maintained at all times if using accessible shared zone for accessible carparking spaces. CR. Details required at Construction Certificate stage
D1.11	**Horizontal exits**:- Not counted as required exits between SOUs or in a class 9b primary/secondary school, early child hood centre.	NA
D1.12	**Non-Required stairways ramps and escalators**:- Generally, unsprinklered buildings can connect 3 stories in a class 2 building and 2 storeys in a class 3-9 building.	CR. Details required at Construction Certificate stage
D1.13	**Number of persons accommodated**:- In accordance with Table D1.13, unless confirmation from building owner is more accurate.	Noted. Preliminary occupant numbers are as detailed in Annexure C of this Report. To be reviewed and confirmed.
D1.14	**Measurement of distances**:- Identifies the nearest part of the exit to measure travel distance	Noted
D1.15	**Method of measurement**:- Specifies the method of measuring the distance of travel to an exit	Noted

Section C	Fire Resistance	Comment
D1.16	**Plant rooms, lift machine rooms and electrical network substations: Concession**:- A ladder may be used in lieu of a stair for egress from: • A plant room with a floor area not more than 100m^2; or • All but 1 point of egress from a plant room, a lift machine room or a Class 8 electrical network substation with a with a floor area of not more than 200m^2 where 2 or more points of egress are provided a ladder may be used from all but one of those exits. Such ladders; • may form part of an exit provided that in the case of a fire-isolated stairway is contained within the shaft. • may discharge within a storey subject to being part of the path of travel, and • must comply with AS 1657-1992 for plant rooms or Class 8 electrical network substations, and • for a lift machine room, where access is to a secondary floor within the room may be a fixed rung type ladder to comply with AS1657 provided; (a) height between floors is not greater than 2.8m, (b) ladder is inclined not less than 65º and not more than 75º to the horizontal, (c) distance between front face of ladder and any adjacent structure is not less than • 960mm for 65º • 760mm for 75º • Distance determined by interpolation for angles between 65º and 75º. • clear space not less than 600mm between foot of ladder and any equipment.	CR. Details required at Construction Certificate stage
D1.17	**Access to lift pits**:- Where the pit depth is < 3m access to be through the lowest landing doors. Where the pit depth is > 3m access to be through an access doorway: • In lieu of D1.6, doorway to be level with pit floor and not less than 600mm wide by 1980mm high (reduced to 1500mm if necessary to comply with following dot point). • No part of lift car or platform encroach on pit doorway entrance when car is on fully compressed buffer. • Stairway complying with AS1657. • In lieu of D2.21, doors must be horizontal sliding or outwards opening hinged; self-closing; self-locking from the outside; marked on landing side with letters not < 35mm high stating DANGER LIFTWELL – ENTRY OF UNAUTHORISED PERSONS PROHIBITED – KEEP CLEAR AT ALL TIMES.	CR. Details required at Construction Certificate stage
PART D2	**CONSTRUCTION OF EXITS**	
D2.1	**Application of Part**:- Except for clauses D2.13, D2.14(a) and D2.16 do not apply to the internal part of a class 2 and 3 buildings (with the addition of D2.18 for class 2)	Noted

Section C	Fire Resistance	Comment
D2.2	**Fire-Isolated stairways & ramps**:- Must be within fire resisting shaft and be constructed of non-combustible materials	CR. Details required at Construction Certificate stage
D2.3	**Non-Fire-Isolated stairways and ramps**:- To be constructed from either: • Reinforced or prestressed concrete • 6mm thick steel • 44mm thick timber & an average density of not less than 800 kg/m^3 at a moisture content of 12%	CR. Details required at Construction Certificate stage
D2.4	**Separation of rising and descending stair flights**:- A required fire isolated stair must have no direct connection between a flight of stairs rising from below the level of access to the road and a flight of stairs descending from a storey above that level.	CR. Details required at Construction Certificate stage
D2.5	**Open access ramps and balconies**:- Where an open access balcony is provided for smoke hazard management it must: • have ventilation openings to the outside air; • not be enclosed on its open sides above 1m except by eg. Grills that are >75% fee air space	NA
D2.6	**Smoke lobbies**:- Where a smoke lobby is required by Clause D1.7 it must: • have floor area 6m^2 minimum; • be separated by walls impervious to smoke; • be fitted with smoke doors; • be pressurised if the adjoining exit are so required.	CR. Details required at Construction Certificate stage
D2.7	**Installations in exits and paths of travel**:- • Access to service shafts must not be from fire exit (unless for fire fighting services); • No openings to ducts conveying hot products of combustion; • Gas or fuel services not permitted within exit • Electrical or service equipment not permitted within fire exit – however can be in a path of travel to an exit if provided with fire protective covering and smoke seals	CR. Details required at Construction Certificate stage
D2.8	**Enclosure of space under stairs and ramps**:- • No enclosures/cupboards permitted in a fire stair; • Space below a non-fire isolated stair to remain unenclosed, unless construction with FRL of 60/60/60 with -/60/30 fire door.	CR. Details required at Construction Certificate stage
D2.9	**Width of stairways**:- A stairway that exceeds 2m in width is counted as having a width of only 2m unless divided by handrail.	CR. Details required at Construction Certificate stage

Section C	Fire Resistance	Comment
D2.10	**Pedestrian ramps**:- Ramp serving as a required exit must: Be maximum 1:14 gradient if required for disabled access (in accordance with AS 1428.1); Maximum 1:8 gradient in other cases; Floor surfaces to have slip resistance classification in accordance with Table D2.14 and AS4586-2013	CR. Plans to detail ramp gradients. Details to be in CC documentation
D2.11	**Fire Isolated passageways**:- To achieve the same FRL as required for a fire isolated stair (or otherwise a minimum FRL of 60/60/60)	NA
D2.12	**Roof as open space**:- If an exit discharges to a roof of a building, the roof must: Have an FRL of 120/120/120, & Not have rooflights or other openings within 3m of the path of travel	NA
D2.13	**Treads and risers**:- • Minimum 2 risers and maximum of 18 risers in any flight; • Riser 115mm minimum, 190mm maximum dimensions – treads 250mm going to 355 maximum going. 2R+G 550mm min and 700 maximum. • Goings and risers to be constant throughout. Constant means within each flight that variations between a) adjacent risers, or between adjacent goings is no more than 5mm, and b) the largest and smallest riser, or largest and smallest going does not exceed 10mm. • Risers not to permit a 125mm sphere to pass through; • Treads to have slip resistance classification in accordance with Table D2.14 and AS4586-2013. Nosings in *Entertainment Venue* portion of building to have conspicuous treads. See also D3.3 and AS1428.1-2009 requirements. • No winders in lieu of a quarter landing	CR. Details required at Construction Certificate stage
D2.14	**Landings**:- In a stairway – maximum gradient of 1:50 and minimum of 750mm long. Landings to have slip resistance classification in accordance with Table D2.14 and AS4586-2013; Class 9a buildings – area of any landing to be sufficient to move a stretcher 2m long and 600mm wide at a gradient of the stairs gradient; or a clear width of not less than 1.6m and clear length of 2.7m	CR. Details required at Construction Certificate stage
D2.15	**Thresholds**:- No step or ramp at any point closer to the doorway than the width of the door leaf, unless: • Door opens to road or open space (and door sill not more than 190mm high or for *Entertainment Venue* door sill not more than 50mm high); • Health care and aged care buildings have concessions;	CR. Details required at Construction Certificate stage

Section C	Fire Resistance	Comment
D2.16	**Barriers to Prevent Falls (Balustrades)**:- A continuous barrier/balustrade to be provided along the side of any roof to with public access is provided, any stairway or ramp, any floor, corridor, hallway, balcony, veranda, mezzanine, access bridge or the like and along the side of any access path to a building if it is not bounded by a wall and the surface beneath is more than 4m for an openable window and 1m in any other case. Balustrade height to be at least 1.0m above level surfaces, 865mm above stair nosings (except 1.0m above stair nosings for *Entertainment Venue*) and gaps to be not greater than 125mm (ie 125mm sphere must not pass through it). Where the floor is more than 4m above the surface beneath any horizontal elements between 150mm and 760mm must not facilitate climbing. Barriers/balustrades for fire-isolated stairs to be constructed so as not to provide rail at not more 150mm above the stair, landing and mezzanine floor, openings of not more than 300mm for balusters and not more than 460mm openings where rails provided.	CR. Details required at Construction Certificate stage
D2.17	**Handrails**:- • Located on at least one side of ramp or stairs; • Located on two sides of stairs when in excess of 2m in width (and where required by Clause D3.3 and AS1428.1); • 865mm above the stair nosings (second handrail at 750mm for class 9b primary school buildings); • continuous between stair flight landings.	CR. Details required at Construction Certificate stage
D2.18	**Fixed platforms, walkways stairways and ladders**: Treads, risers, handrails and balustrades in plant rooms, lift motor rooms or non-habitable parts of a class 2/4 SOU etc to comply with AS 1657	NA
D2.19	**Doorways and doors**:- Doors in exits (or in patient care areas of class 9a) must not be fitted with roller door; roller shutter or tilt up door. Can only be fitted with a sliding door if it leads directly to open space and the door is able to be opened manually under a force of not more than 110N. If fitted with a power operated door must be opened manually under a force of not more than 110N and automatic fail safe open device on power failure or on activation of a smoke detector in the fire compartment served by the door. In an *Entertainment Venue;* doors must swing in the direction of egress, and doors must be in 2 folds where the width is more than 1.0m. A sliding door may be fitted where, the door forms a main entrance leading to open space, and is capable of swinging in the direction of egress when pressure is applied to the inside, and signage indicates the potential for the door to swing in an emergency.	CR. Details required at Construction Certificate stage CR/AS. If sliding doors proposed in Cinemas this requires an Alternative Solution as this would not satisfy DtS requirements for swinging doors and need for panic bars as per D2.19, D2.21 & NSW D2.101. CR If main entry doors proposed as exit requires breakout doors

Section C	Fire Resistance	Comment
D2.20	**Swinging doors**:- Must not encroach more than 500mm into the required width of the stair, or when fully open not more than 100mm into the width of the exit. Door in exit to swing in the direction of egress unless the door serves a part of the building having an area not more than 200m^2 and the door is fitted with a hold open device.	CR. Doors opening into fire-isolated exits and final doors opening from fire-isolated exits must swing in the direction of egress. Details required at Construction Certificate stage
D2.21	**Operation of latch**:- Exit doors and doors in the path of travel to an exit to be provided with lever latch handle device located between 900mm and 1100mm above the floor and openable with a single handed downward action without recourse to a key and if serving an area required to be accessible by Part D3 of the BCA and: • be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and • have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not < 35mm and not > 45mm, except for. Concessions apply to a Class 5, 6, 7 or 8 building or part with a floor area not more than 200m^2 or other areas subject to certain other conditions being met. Class 9b building accommodating more than 100 persons where doors to required exits or doors in a path to a required exit must have a single device such as a panic bar located between 900mm and 1.2m above floor. *Entertainment Venue* must have doors used by the public provided with a single device such as a panic bar located between 900mm and 1.2m above floor. Concession for *Entertainment Venue* doors that are used by the public as the main entrance may be fitted with key-operated fastenings only, the tongues of which must be locked in the retracted position whenever the building is occupied by the public so that the door can yield to pressure.	CR. Details required at Construction Certificate stage
D2.22	**Re-entry from fire isolated exits**:- Doors in a fire isolated exit within a class 9a health care building, a class 9c aged care building or a building with effective height of > 25m must not be locked from the inside to prevent re-entry	CR. Details required at Construction Certificate stage
D2.23	**Signs on doors**:- Signage is required to fire/smoke doors to alert persons that the operation of some doors must not be impaired.	CR. Details required at Construction Certificate stage

Section C	Fire Resistance	Comment
D2.24	**Protection of openable windows**:- (a) A window opening must be provided with protection if the floor below the window is 2m or more above the surface beneath in a Class 9b early childhood centre or in a bedroom of a Class 2, 3 or 4 part. (b) Where the lower level of the window opening is less than 1.7m above the floor, a window must be protected with a device to restrict the window opening or a screen with secure fittings. (c) A barrier with a height not less than 865mm above the floor is required to an openable window:- • In addition to window protection when a child resistant screen release mechanism is required, & • For openable windows 4m or more above the surface of the window if not included in (a) above. (d) A barrier required by (c), except for (e) above must not permit a 125mm sphere to pass through and must have no horizontal or near elements between 150mm and 760mm above the floor that facilitates climbing. (e) A barrier required by (c) to an openable window in:- • Fire-isolated stairs/ramps and other areas used primarily for emergency purposes, excluding external stairs/ramps, and • Class 7 (other than carparks) and Class 8 buildings and parts containing those classes; Must not permit a 300mm sphere to pass through it.	CR. Details required at Construction Certificate stage
D2.25	**Timber Stairways: Concession –** Notwithstanding D2.2, timber treads, landings and supporting framework may be used in a fire-isolated exit if	NA
NSW D2.101	**Doors in path of travel in an entertainment venue** In a Class 9b *Entertainment Venue* a doorway in a path of travel must comply with NSW Clause D2.19 (b) (v), e.g doors swinging in the direction of egress and in 2 folds where more than 1.0m clear width.	CR/AS. If sliding doors proposed between each Cinema and Foyer, this requires an Alternative Solution as this would not satisfy DtS requirements for swinging doors and need for panic bars. Details required at Construction Certificate stage
PART D3	**ACCESS FOR PEOPLE WITH DISABILITIES**	
D3.1	**General building access requirements**:- Buildings are required to be accessible in accordance with AS 1428.1-2009:	CR. Retail and Cinema Building - Access is required to and within all areas used by the occupants; Carpark Building - Access is required to and within any level containing accessible carparking spaces. From the pedestrian entrance required to be accessible to at least 1 floor containing SOU's and to each entrance doorway of each SOU on that level. Where a lift is installed access is required to the entrance doorway of each SOU located on the levels served by the lift. Details to be provided with Construction Certificate

Section C	Fire Resistance	Comment
D3.2	**Access to buildings** Access is required from: • the main points of pedestrian entry at the allotment boundary. If building is > 500m^2 the secondary entrance must be accessible if more than 50m from the accessible entrance. • other accessible buildings connected by a pedestrian link. • any required accessible carparking space on the allotment. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance and through not less than 50% of all pedestrian entrances including the principal entrance.	CR. Access is required in accordance with AS1428.1-2009: - • from the main points of a pedestrian entry at the allotment boundary and must be through the principal pedestrian entrance, and • from another accessible building connected by a pedestrian link, and • from carparking building, and • through not < 50% of all entrances and through at least one secondary entrance and others greater than 50m apart. • Doors to be at least 850mm clear width with associated circulation space. Details to be provided with Construction Certificate
D3.3	**Parts to be accessible**:- Ramps and stairways, except where exempt by D3.4, are to satisfy: - • for a ramp, except fire-isolated ramp, Clause 10 of AS1428.1-2009, and • for a stairway, except fire-isolated stairway, Clause 11 of AS1428.1-2009, and • for a fire-isolated stairway, Clause 11.1 (f) and (g) of AS1428.1-2009. Lift access must comply with clause E3.6. Accessways must have passing spaces, turning spaces as required. Carpet pile height to be in accordance with AS1428.1-2009, except as modified by Cl D3.3 (g) and (h)..	CR. Turning Space 1.54m wide and 2.07m long to be located within 2m of the end of corridors. CR. Access to tenancies and areas used by the staff or public in accordance with AS1428.1-2009, including. CR. Lift must comply with BCA Clause E3.6. CR. Ramp to satisfy Clause 10 of AS1428.1, stairs to satisfy Clause 11 of AS1428.1 and fire-isolated stairways to satisfy Clause 11.1 (f) & (g) of AS1428.1. Details to be provided with Construction Certificate
D3.4	**Exemptions**:- Not necessary to provide access to: An area that would pose a health or safety risk; or, any area that is inappropriate due to its use and any path of travel providing access to one of these areas.	Noted. Exemption likely to apply to parts of building.
D3.5	**Car Parking**:- Spaces to be provided in accordance with AS/NZS 2890.6-2009 at the rate specified in Table D3.5.	CR. Accessible carparking spaces to be provided at the rate of 1 space for every 50 carparking spaces up to 1000 spaces; plus 1 space for every additional 100 carparking spaces or part in excess of 1000 spaces. Details to be provided with Construction Certificate
D 3.6	**Signage**:- Clear and legible Braille and tactile signage complying with Spec D3.6 is required to identify each accessible sanitary facility, each accessible space with a hearing augmentation system and each door required by E4.5 having an exit sign. Signage / symbols in accordance with AS1428.1-2009.	CR. Details required at Construction Certificate stage

<table>
<tr><th>Section C</th><th>Fire Resistance</th><th>Comment</th></tr>
<tr><td>D 3.7</td><td>Hearing augmentation:-

Where an inbuilt amplification system (other than one used for emergency warning), a hearing augmentation system is to be provided in the following locations:
• an auditorium, conference room, meeting room or room for judicatory purposes, or
• in a room in a class 9b building, or
• ticket office, tellers booths, reception area or the like where the public screened from the service provider</td><td>CR. Hearing Augmentation required to be provided in the Class 9b rooms and Cinema’s. Details required at Construction Certificate stage</td></tr>
<tr><td>D 3.8</td><td>Tactile indicators:-

TGSI required:
• when “public” are approaching a stair, escalator, travelator, and ramp (other than step ramp),
• overhead obstructions less than 2m high
• paths of travel meeting a vehicular way adjacent to the main entrance of the building – if there is no kerb or kerb ramp at that point.
• TGSI required to comply with AS/NZS 1428.4.1-2009</td><td>CR. TGSI’s required to ramps and stairs. TGSI not required to fire-isolated stair or a stair that is exempt (Ref D3.4).

Details required at Construction Certificate stage</td></tr>
<tr><td>D3.9</td><td>Wheelchair seating spaces in a Class 9b assembly buildings:-

Where fixed seating is provided in a Class 9b assembly building, wheelchair seating in accordance with AS1428.1-2009 must be provided with the number and grouping in accordance with Table D3.9.
In a Cinema: -
• With 300 or < seats – must not be located in front row, and
• With > 300 seats – not less than 75% of wheelchair seating spaces must be located in rows other that the front row, and
• Location of wheelchair seating is to be representative of the range of seating provided.
Seating in a Class 9b Assembly Building must be
<table><tr><th>Number of fixed seats in a room or space</th><th>Number of wheelchair seating spaces</th><th>Grouping and location</th></tr><tr><td>Up to 150</td><td>3 spaces</td><td>1 single space; and 1 group of 2 spaces.</td></tr><tr><td>151 to 800</td><td>3 spaces; plus 1 additional space for each additional 50 seats or part thereof in excess of 150 seats</td><td>Not less than 1 single space; and not less than 1 group of 2 spaces; and not more than 5 spaces in any other group</td></tr></table>Table D3.9 Wheelchair Seating Spaces</td><td>CR. Cinemas require additional wheelchair spaces to satisfy BCA Table 3.9. Also spaces are to be grouped and located as follows:
<table><tr><th>No</th><th>Fixed Seats</th><th>W’chr seats req’d</th><th>Grouping and Location</th></tr><tr><td>1.</td><td>445</td><td>9</td><td>Not < 1 single space; & Not < 1 group of 2 spaces; & Not > 5 spaces in any other group</td></tr><tr><td>2.</td><td>234</td><td>5</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>3.</td><td>217</td><td>5</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>4.</td><td>218</td><td>5</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>5.</td><td>203</td><td>5</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>6.</td><td>133</td><td>3</td><td>1 single space; & 1 group of 2 spaces</td></tr><tr><td>7.</td><td>153</td><td>4</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>8.</td><td>180</td><td>4</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr><tr><td>9.</td><td>193</td><td>4</td><td>Not < 1 single space; & Not < 1 group of 2 spaces</td></tr></table>Details required at Construction Certificate stage</td></tr>
<tr><td>D3.10</td><td>Swimming pools: -

Not less than 1 means of accessible water entry/exit in accordance with Spec D3.10 must be provided for each swimming pool required by Table D3.1.</td><td>NA</td></tr>
<tr><td>D3.11</td><td>Ramps: -

An accessway must not have a series of ramps that have a combined vertical rise > 3.6m and a landing for a step ramp must not overlap a landing for another step ramp.</td><td>CR. Details required at Construction Certificate stage</td></tr>
</table>

Section C	Fire Resistance	Comment
D3.12	**Glazing on an accessway**: - On an accessway where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights and any glazing capable of being mistaken for a doorway opening must be clearly marked in accordance with As1428.1-2009	CR. Details required at Construction Certificate stage

Section E	Services and Equipment	Comment
PART E1	**FIRE FIGHTING EQUIPMENT**	
E1.3	**Fire Hydrants**:- Hydrant system required to serve a building with a floor area >500m^2 and where the fire brigade is available to attend the fire. System must satisfy AS2419.1 – 2005.	CR. Provision of Fire Hydrant System required in accordance with AS2419.1-2005. Internal Fire Hydrant System required with external hydrant booster being located at front of property. Preliminary review recommended to confirm location of booster, if hydrant pump or water storage is required. Details required at Construction Certificate stage
E1.4	**Hose Reels**:- Fire hose reel system to be provided (in accordance with AS 2441 – 2005) to: • does not apply to Class 2, 3 building or Class 4 part of a building, • serve the whole building where internal fire hydrant have been installed; • serve any fire compartment >500m^2 (where internal hydrants are not installed); • Hose reels to be located: (a) Externally; or (b) Internally within 4m of an exit; or (c) Internally adjacent to a fire hydrant (other than one in fire isolated exit); or (d) Combination of the above • Achieve system coverage and (a) Need not be adjacent to every fire hydrant, (b) Need not be adjacent to every exit, (c) System coverage not achieved by (a) and (b), additional fire hose reels may be located in paths of travel to an exit. • Hose reels not to pass through fire or smoke doors	CR. Fire hose reel system required in accordance with AS2441 – 2005. Details required at Construction Certificate stage.

Section E	Services and Equipment	Comment
E1.5	**Sprinklers**:- Sprinkler system complying with AS 2118 to be provided in accordance with BCA Specification E1.5 to: • Buildings >25m effective height; • Carparks accommodating > 40 vehicles, except open deck carparks; • Class 6 buildings with large fire compartments, i.e. more than 3,500m^2 floor area, or more than 21,000m^3 volume; • Class 9b buildings – refer to Part H1 • Class 9c aged care buildings; • Some large isolated buildings; • Occupancies of excessive hazard	CR. Sprinkler system required to retail / cinema building in accordance with AS2118.1 – 1999 and BCA Specification E1.5. Preliminary review recommended to confirm location of booster, location of sprinkler control valves, if sprinkler pump or water storage is required. Details required at Construction Certificate stage
E1.6	**Portable Extinguishers**:- To be installed to AS2444-2001	CR. Portable Fire Extinguishers required in accordance with BCA Table E1.6 and AS2441 – 2001. Details required at Construction Certificate stage
E1.7	Deliberately left blank	Noted
E1.8	**Fire Control Centres**:- Required in a building > 25m effective height or in a class 6, 7, 8 or 9 building that exceeds 18,000m^2 in floor area	NA, subject to confirmation building floor area is not greater than 18,000m^2. Details required at Construction Certificate stage
E1.9	**Fire precautions during construction**:- • Fire extinguisher at each exit (temporary) form each storey; • Booster connections, hydrants and FHR to be operational when building >12m effective height	CR. Details required at Construction Certificate stage
E1.10	**Provision for special hazards**	NA
PART E2	**SMOKE HAZARD MANAGEMENT**	
E2.1	**Application of Part**:- DTS provisions to not apply to open deck carparks, and the smoke and heat vent provisions do not apply to storerooms and the like of less than 30m^2	Noted

Section E	Services and Equipment	Comment
E2.2	**General requirements for smoke hazard management** (including Table E2.2a). General Provisions. Class 6 or 9b building having a Rise in Storeys > 2 must be provided with either: - • Pressurisation of each fire-isolated exit in accordance with AS/NZS1668.1 - 2015, or • Zone Smoke Control System for building with more than 1 fire compartment, in accordance with AS/NZS1668.1 - 2015, or • Automatic Smoke Detection & Alarm System in accordance with BCA Spec E2.2a, or • Sprinkler System in accordance with AS2118.1 – 1999. Fire-isolated Exits. A fire-isolated passageway or fire-isolated ramp with a length of travel more than 60 m to a road or open space, must be provided with— • an automatic air pressurisation system for fire-isolated exits in accordance with AS/NZS 1668.1. This applies to the entire exit; or • open access ramps or balconies in accordance with D2.5. Also, refer D1.7(d) for pressurisation of a fire-isolated exit having more than 2 access doorways from within the same storey.	CR. Building is required to be provided with Smoke Hazard Management System, e.g. • Sprinkler System throughout satisfies the General Provisions, and • Fire-isolated passageways or ramps if more than 60m to be pressurised. • Fire-isolated exits if more than 2 access doorways from the same storey to be pressurised. Design to be confirmed at Construction Certificate stage

Section E	Services and Equipment	Comment
E2.2	**Specific provisions for smoke hazard management** (including Table E2.2b). Retail. Where the floor area of a Class 6 part of a fire compartment is > 2000 m^2, the fire compartment, including the enclosed common walkway or mall, must be provided with: - • Automatic Smoke Exhaust System complying with Specification E2.2b; or • Automatic Smoke-and-Heat Vents complying with BCA Specification E2.2c, if the building is single storey, or • if the floor area of the fire compartment is not more than 3500 m^2 and the building has a rise in storeys of not more than 2, a sprinkler system complying with Specification E1.5. The above provisions do not apply to: - (i) a Class 6 SOU that— (A) opens onto the enclosed common walkway or mall if the Class 6 SOU has a floor area of not more than 1000 m^2; or (B) does not open onto the enclosed common walkway or mall if the Class 6 SOU— (aa) has a floor area of not more than 2000m^2; and (bb) is single storey with a main entrance opening to a road or open space; and (cc) is separated from other parts of the fire compartment by construction, including openings, penetrations and junctions with other building elements, that prevents the free passage of smoke; and (ii) parts of any other classification that are smoke separated from a Class 6 part by construction complying with (i)(B)(cc). Auto-Shutdown of Air Conditioning. A building or part of a building used as an assembly building (e.g. Class 9b) must be provided with automatic shutdown of any air-handling system (other than non-ducted individual room units with a capacity not more than 1000 L/s and miscellaneous exhaust air systems installed in accordance with Sections 5 and 6 of AS/NZS 1668.1) which does not form part of the smoke hazard management system, on the activation of: - • Smoke Detectors installed complying with Clause 5 of BCA Specification E2.2a; and • Any other installed Fire Detection and Alarm System, including a Sprinkler System complying with BCA Specification E1.5. Assembly Building. In a building or part of a building used as an assembly building (e.g. Cinema's, Skyzone, Funlab and Crocs) where the floor area of a fire compartment is more than 2000 m^2, the fire compartment must be provided with— (i) an automatic smoke exhaust system complying with Specification E2.2b; or (ii) roof mounted automatic smoke-and-heat vents complying with SpecificationE2.2c, in a single storey building or the top storey of a multi storey building; or (iii) if the floor area of the fire compartment is not more than 5000 m^2 and the building has a rise in storeys of not more than 2— (A) an automatic smoke detection and alarm system complying with Specification E2.2a; or (B) a sprinkler system complying with Specification E1.5.	CR. Building is required to be provided with Smoke Hazard Management System, e.g. • Smoke exhaust system required to Class 6 retail area in accordance with BCA Specification E2.2b, except need not be provided to: (i) Tenancies less than 1,000m^2, and (ii) Remainder of the building if smoke separated from the Class 6 part, and • Smoke exhaust system required to Class 9b (Regardless of any smoke separation noted above) Cinema's, Indoor Recreation areas in accordance with BCA Specification E2.2b. • Air-conditioning of Class 9b areas to automatically shutdown upon activation of smoke detectors located in accordance with Clause 5 of BCA Specification E2.2a and activation of sprinklers. • Smoke detectors are required to activate automatic shutdown or air-handling systems or smoke exhaust systems in accordance with BCA Specification E2.2b are required to be provided complying with Clause 5 of BCA Specification E2.2a and AS1670.1-2015. Design to be confirmed at Construction Certificate stage

Section E	Services and Equipment	Comment
E2.3	**Provision for special hazard**:- Additional measures to be provided due to the special characteristics, function; use; type of materials stored; or special mix of classifications within a building	NA
PART E3	**LIFT INSTALLATIONS**	
E3.1	Repealed	Noted
E3.2	**Stretcher facility in lifts are required in**:- • Buildings with an effective height > 12m; • In at least one "emergency lift" One lift is required to provide a clear space of not less than 600mm wide x 2m long x 1400mm high above the lift car floor level	NA
E3.3	**Warning against use of lifts in fire**:- Signs to be provided at each lift landing located near every call button complying with figure E3.3	CR. Details of signage required at Construction Certificate stage
E3.4	**Emergency lifts**:- Required in some class 9a buildings and also buildings with effective height >25m	NA
E3.5	**Landings**:- Access and egress to and from liftwell landings must comply with BCA Part D	CR. Details required at Construction Certificate stage
E3.6	**Facilities for people with disabilities**:- Passenger lifts to comply with the relevant Australian Standard listed in Table E3.6a and have accessible features as listed in Table E3.6b, and must not rely on constant pressure for its operation if the lift car is fully enclosed.	CR. Details required at Construction Certificate stage.
E3.7	**Fire Service Controls**:- Passenger lift cars serving any storey above an effective height of 12m, must be provided with fire service control switch in accordance with E3.9 and lift car fire service drive control switch in accordance with E3.10.	NA
E3.8	**Aged Care Buildings**:- Where residents are on levels which do not have access to the road or open space the building must have either: • Stretcher facility lift; or • Ramp complying with AS 1428.1	NA
E3.9	**Fire Service Recall Operation Switch** Where required, switch. Labelling, key and operation procedures for a fire service recall control switch are to be provided.	NA
E3.10	**Lift Car Fire Service Drive Control Switch** Where required switch initiation, labelling and operation for the fire service drive control switch is to be provided.	NA
PART E4	**EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS**	
E4.1	Repealed	Noted

Section E	Services and Equipment	Comment
E4.2	**Emergency Lighting**:- Required (in accordance with AS 2293.1) in: • Every fire isolated exit; • every storey >300m^2 in area • path of travel to an exit and in any room with floor area > 100m^2 that does not open to a corridor/space with emergency lighting and any room having a floor area in excess of 300m^2; • any room with floor area >300m^2; • any room or space to which there is public access in every storey in a Class 6 or 9b building if that storey has a floor area >300m^2, or any point more than 20m from a doorway leading directly to stairway of open space; • every non-fire isolated stairway	CR. Details required at Construction Certificate stage
E4.3	**Measurement of distances**:- Using the shortest path of travel.	Noted
E4.4	**Design and operation of emergency lighting**:- To comply with AS 2293.1-2005	CR. Details required at Construction Certificate stage
E4.5	**Exit signs**:- Clearly visible to persons approaching an exit, above doors: • to enclosed or external stairs, passageways and ramps • to external access balcony, • from an enclosed stair, passageway or ramp at the level of discharge to the road; • acting as horizontal exits; • serving as or forming part of a required exit in a storey with emergency lighting.	CR. Details required at Construction Certificate stage
E4.6	**Direction signs**:- Where an exit is not apparent exit signs with directional arrows are required	CR. Details required at Construction Certificate stage
E4.7	**Class 2 and 3 Buildings and Class 4 parts exemptions:-** Illuminated exit signs not applicable to: • doors of SOUs of class 2, 3 or 4; • class 2 building where “EXIT” is clearly labelled on the side remote from the exit/balcony	Noted
E4.8	**Design and operation of exit signs**:- To comply with AS 2293.1-2005 or photoluminescent exit sign in accordance with BCA Specification E4.8.	CR. Details required at Construction Certificate stage

Section E	Services and Equipment	Comment
E4.9	**Sound systems and intercom systems for emergency purposes**:- To be installed to comply with AS 1670.4-2015 in: • buildings with effective height >25m; • class 3 residential part of a school or aged/ disabled children accommodation with RIS > 2; • class 3 residential aged care; • class 9a with floor area > 1000m^2 or RIS >2; • class 9b school with RIS 3 • class 9b theatre, public hall, etc with floor area >1000m^2 or RIS >2	CR. Details required at Construction Certificate stage

Section F	Health and Amenity	Comment
PART F1	**DAMP & WEATHER PROOFING**	
F1.1	**Stormwater drainage**:- Collection of stormwater drainage is to comply with the consent authority's requirements and also AS/NZS3500.3-2015	CR. Details required at Construction Certificate stage
F1.5	**Roof coverings**:- Plastic sheeting: AS/NZS1562.3-1996, AS/NZS4256 Parts 1, 2, 3-1994 & 5-1996; Roofing tiles AS2049-2002, AS2050-2002; Cellulose cement corrugated sheets: AS/NZS 2908.1-2000 with safety mesh to AS/NZS1562.3-1996; Metal Roofing: AS1562.1-1992 and Asphalt shingles: ASTM D3018-90, Class A	CR. Details required at Construction Certificate stage
F1.6	**Sarking**:- Where used for weatherproofing for roofs and walls must comply with AS/NZS 4200 parts 1 & 2 - 1994	CR. Details required at Construction Certificate stage
F1.7	**Waterproofing of wet areas in buildings**:- The floor surface or substrate to proposed bathrooms, shower areas and toilets must be provided with a waterproofing membrane in accordance with AS 3740-2010. In addition the junction between the floor surface and the walls are required to be impervious to water.	CR. Details required at Construction Certificate stage
F1.8	Deliberately left blank	
F1.9	**Damp-proofing**:- The building must be provided with a damp proof course that prevents moisture from the ground from reaching the internal elements of the building. To be installed in accordance with AS/NZS 2904-1995 or AS3660.1-2000 (or 2014). Some concessions apply to class 7 and 8 and 10 buildings.	CR. Details required at Construction Certificate stage
F1.10	**Damp-proofing of floors on the ground**:- Vapour barrier to be in accordance with AS 2870-2011.	CR. Details required at Construction Certificate stage
F1.11	**Provision of floor wastes**:- Class 2, 3 or 4 part to have floor wastes in bathrooms, laundries located at any level above an SOU / public space.	NA
F1.12	**Sub-floor ventilation**:-	NA

Section F	Health and Amenity	Comment
F1.13	**Glazed Assemblies**:- Windows, sliding doors, adjustable louvres, shopfronts; window walls must comply with AS2047 -2014 if located in an external wall for resistance to water penetration. Some concessions apply to class 7 & 8.	CR. Details required at Construction Certificate stage
PART F2	**SANITARY & OTHER FACILITIES**	
F2.1	**Facilities in residential buildings**:- Minimum facilities for class 2, 3 and 9c and class 4 parts must be provided in accordance with Table F2.1	NA
F2.2	**Calculation of number of occupants and fixtures**:- Sanitary facilities to be determined by Clause D1.13 of the BCA unless the building owner can provide explicit occupant numbers.	Noted
F2.3	**Facilities in Class 3 to 9 Buildings**, Table F2.3:-	CR. The number of required sanitary facilities is to be determined when the occupancy numbers and use are confirmed. **1. <u>Retail</u>** • Facilities likely to readily cater for population, however this would require review based on number of food outlets and if some provide own facilities. **2.** Indoor Recreation Ground Floor**:** • Facilities required will depend on layout, population and if café proposed. **3. <u>Cinemas:</u>** a) <u>Patrons</u> • Male facilities is as required • Female WC & Basin numbers as required. • Further review required at CC stage so that any extra facilities may cater for employees or for Indoor Recreation. b) <u>Staff</u> • As required **4.** Indoor Recreation First Floor**:** • May use shared facilities where numbers exceed Cinema requirements. See notes for Cinema's. • Facilities required will depend on layout, population and if café proposed

Section F	Health and Amenity	Comment
F2.4	**Facilities for people with disabilities**:- Accessible sanitary facilities to be provided in accessible parts of the building as indicated in table F2.4 (a) in accordance with AS1428.1 – 2009, and: -. Accessible showers in accordance with table F2.4 (b), At each bank of toilets where there is 1 or more toilets in addition to an accessible unisex sanitary compartment at that bank, an ambulant facility suitable for males and females. Accessible unisex sanitary facility must contain a closet pan, washbasin, shelf or bench top and means of disposing sanitary towels. Accessible unisex sanitary facility must be entered without crossing an area reserved for one sex only. If 2 or more accessible unisex sanitary facilities provided, the number of left and right hand mirror image facilities must be as even as possible. If male and female toilets are at different locations, accessible unisex sanitary facilities are required at one of those locations only. Accessible unisex sanitary compartment or shower need not be provided on a storey not required to have a lift or ramp in accordance with BCA Cl D3.3 (small floor area)	CR. An accessible unisex sanitary facility required at each bank of toilets. Also, ambulant sanitary male and female WC required at each bank of male and female facilities. Details in accordance with AS1428.1-2009 to be provided at Construction Certificate stage.
F2.5	**Construction of sanitary compartments**:- Doors to fully enclosed sanitary compartments must be constructed at least 1.2m from the pan, or be outward opening, or removal from the outside.	CR. Fully enclosed individual WC's require doors to swing outwards, be sliding, or be readily removable from outside, unless 1.2m setback between doorway and WC. Details required at Construction Certificate stage
F2.6	**Interpretation** : urinals and wash basins:	Noted
F2.7	deleted	NA.
F2.8	**Waste Management**:- Slop-hoppers to be provided in class 9a and class 9c buildings	NA
PART F3	**ROOM SIZES**	
F3.1	**Height of rooms**:- • 2.4m high generally for habitable rooms and 2.1m high for non-habitable rooms, corridors, kitchen. Note: In rooms with a sloping ceiling, reduced heights apply. • Class 9b Classrooms or other parts that accommodate not more than 100 persons – 2.4m and parts that accommodate more than 100 persons – 2.7m. • Commercial kitchens minimum 2.4m high.	CR. Ceiling height to be at least: - • 2.7m to Level 1 Cinemas, foyer, Indoor Recreation areas. • 2.4m to habitable rooms. • 2.1m to all toilets, retail corridors and the like.

PART F4	**LIGHT AND VENTILATION**	
F4.1	**Provision of Natural light**:- • Class 2 and 4 – all habitable rooms; • Class 3 – all bedrooms and dormitories; • Class 9a/9c – all rooms used for sleeping; • Class 9b – classrooms for schools; playrooms for childhood centres	NA
F4.2	**Methods and extent of natural lighting**:- • Provided by windows with light transmission and are open to sky or face a courtyard; • Setbacks to obstructions/boundary generally 1m – exceptions apply to class 2, 3, 4, 9a and 9c	CR. This will readily achieve compliance to some areas. Natural lighting via windows required that are not less than 10% of the floor area of the room, or by rooflights that a not less than 3% of the floor area of the room. Details to be confirmed with CC.
F4.3	**Natural light borrowed from adjoining room**:- Applies in some instances in class 2, 3 and class 4 parts	NA
F4.4	**Artificial lighting**:- Artificial lighting must be provided to the building to all rooms that are frequently occupied and all corridors, lobbies, internal stairways and circulation spaces and paths of egress. The lighting system must comply with AS/NZS 1680 – 2009.	CR. Required if not provided with natural lighting for all rooms, corridors, stairways, carpark, fully enclosed rooms such as sanitary facilities and the like. Details to be confirmed with CC.
F4.5	**Ventilation of rooms**:- A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry and any other room occupies by a person for any purpose must have either natural or mechanical ventilation. Mechanical Ventilation for occupants of the building is required to comply with AS 1668.2 – 2012 and AS/NZS 3666.1 – 2011	CR. This will readily achieve compliance. Natural ventilation via windows, doors or louvres required that are not less than 5% of the floor area of the room, or Mechanical Ventilation in accordance with AS1668.2-2012. Details to be confirmed with CC.
F4.6	**Natural ventilation**:- Relates to methods of providing natural ventilation through openings in the building, ie openings 5% of floor area of room.	CR. This will readily achieve compliance to some areas. Natural ventilation via windows, doors or louvres required that are not less than 5% of the floor area of the room. Details to be confirmed with CC.
F4.7	**Ventilation borrowed from adjoining rooms**:- Ventilation can be borrowed if both rooms are within the same SOU or an enclosed veranda is common property	Noted
F4.8	**Restriction on position of water closets and urinals**:- A room containing a closet pan/urinal must not open directly into a kitchen; pantry; restaurant; public dining room; dormitory in a class 3; public assembly room; workplace used by more than 1 person	CR. Details required at Construction Certificate stage.
F4.9	**Airlocks**: Airlocks, mechanical ventilation and screens can be utilised where WCs open into rooms as indicated in clause F4.8.	CR. Details required at Construction Certificate stage.
F4.10	Repealed	

F4.11	**Carparks**:- Every storey of a carpark, except an open deck carpark, must be provided with either mechanical ventilation complying with AS1668.2 – 2012 or permanent natural ventilation complying with Section 4 of AS1668.4 - 2012.	CR Does not apply, subject to confirmation Ground Floor of carpark is open to satisfy 'open deck carpark' requirements. Carparking area between Indoor Recreation and Retail is naturally ventilated in accordance with AS1668.4 - 2012.
F4.12	**Kitchen local exhaust ventilation**:- Commercial kitchen to be provided with kitchen exhaust hood complying with AS/NZS1668.1 and AS1668.2 where:- • Any cooking apparatus has a total max. electrical power input > 8kW or a total gas power input exceeding 29MJ/h; or • The total max. power input to >1 apparatus exceeds 0.5kW electrical power or 1.8MJ gas per m^2 of floor area of the room or enclosure.	CR. Details required at Construction Certificate stage.
PART F5	**SOUND TRANSMISSION AND INSULATION**	
F5.1	**Application of Part**: The DTS provisions of this part apply to class 2, 3 and 9c buildings	NA
F5.2	**Determination of airborne sound insulation ratings**:- Relates to form of construction required to have airborne sound insulating rating	NA
F5.3	**Determination of impact sound insulation ratings**:- •	NA
F5.4	**Sound Insulation of floors**:-	NA
F5.5	**Sound insulation rating of walls**:- ii.	NA
F5.6	**Sound insulating rating of services**:-	NA
F5.7	**Sound isolation of Pumps**:- Flexible coupling must be used at the point of connection between service pipes in a building and any pump.	NA

Section G	Ancillary Provisions	Comment
G1.2	**Refrigerated chambers, strongrooms or vaults**:- Provides minimum safety provisions for refrigerated chambers, etc which are of sufficient size for a person to enter, must have- • Door capable of being opened from inside without a key, • Lighting controlled by a switch located adjacent to the entrance door inside the room, • Indicator lamp outside the room which is illuminated when the interior lights are switched on, • An alarm located outside but controlled from inside that achieves a sound pressure level of 90dB(A) when measured 3m from the sounding device. • Door with clear width of 600mm and height of 1.5m.	CR. Details required at Construction Certificate stage.
G2	**Heating Appliances** Provides minimum installation requirements for heating appliances (eg stove, heater or similar)	NA
G3	**Atrium Construction**	NA.
G4	**Alpine Areas**	NA
G5	**Construction in Bushfire Zones**	? Details required at Construction Certificate stage

Section H	Class 9b Buildings	Comment
H1.1	**Application of part** H1.4 and H1.7 applies to every enclosed Class 9b building (ie school assembly building, church of community hall and the like).	NA
NSW H1.1	**Application of Part** For an assembly building, that is not a Entertainment venue , the DtS Provisions of Part H1 applies to every enclosed building which - • is a school assembly building, church or community hall with a stage and any backstage area with a floor area > 300m^2; or • Otherwise has a stage and any backstage area > 200m2; or • Has a stage with a rigging loft. Notwithstanding this Clause H1.4 and H1.7 applies to every assembly building.	NA
H1.2	**Separation** A theatre, hall or the like must have a sprinkler system throughout or stage, backstage & under-stage area separated from the audience with a proscenium wall**.**	NA
H1.3	**Proscenium Wall Construction** A proscenium wall must comply with Spec H1.3.	NA

Section H	Class 9b Buildings	Comment
H1.4	**Seating Area** In a seated area: 1. the gradient of the floor surface must not be steeper than 1 in 8, or the floor must be stepped so that—a line joining the nosings of consecutive steps does not exceed an angle of 30° to the horizontal; and the height of each step in the stepped floor is not more than 600 mm; and the height of any opening in such a step is not more than 125 mm; and 2. if an aisle divides the stepped floor and the difference in level between any 2 consecutive steps — exceeds 230 mm but not 400 mm—an intermediate step must be provided in the aisle; and if exceeding 400 mm - 2 equally spaced intermediate steps must be provided in the aisle; and the going of intermediate steps must be not less than 270 mm and such as to provide as nearly as practicable equal treads throughout the length of the aisle; and 3. the clearance between rows of fixed seats used for viewing performing arts, sport or recreational activities must be not less than — 300 mm if the distance to an aisle is not more than 3.5 m; or 500 mm if the distance to an aisle is more than 3.5 m.	NA
H1.5	**Exits from Theatre Stages** The path of travel from the stage must not pass through the proscenium wall if provided in accordance with Spec H1.3. Exits from the backstage must be independent to those provided for the audience.	NA
H1.6	**Access to Platforms and Lofts** A stairway providing access to service platforms, rigging loft and the like must comply with AS1657.	NA
H1.7	**Aisle Lights in Theatres** Aisle lighting must be provided where lights are dimmed or extinguished when the public are in attendance and where the floor is stepped or greater than 1:12.	NA

Section H	Entertainment Venues	Comment
NSW PART H101	**PLACE OF PUBLIC ENTERTAINMENT (POPE)** This Part contains Deemed-to-Satisfy Provisions additional to those contained in Sections C, D and E for buildings containing or used as an entertainment venue.	Noted. Applies to Cinema part of building.
NSW H101.1	**Application of Part** • This part applies to every *entertainment venue* as defined by the Environmental Planning & Assessment Regulation 2000..	Noted. Definition *of Entertainment Venue* means; a building used as a cinema, theatre or concert hall or an indoor sports stadium. Therefore, applies to Cinema part of building.

Section H	Entertainment Venues	Comment
NSW H101.2	**Fire Separation** If a *entertainment venue* forms part only of a building, then— • the whole of the *entertainment venue; or* • the part containing the *stage*, *backstage* area and *auditorium*, must be separated from the other parts of the building by construction having an FRL of not less than 60/60/60.	CR. *Entertainment Venue* or Cinema part of building requires fire separation from remainder of building with construction having an FRL of not less than 60/60/60. Details required at Construction Certificate stage
NSW H101.3	**Foyer Space** Where the entertainment venue is used principally for the purpose of exhibiting *films*; or conducting live *stage* productions the foyer space (excluding stairways and concession areas) must be provided on the basis of at least 0.25 m^2 for each occupant of the auditorium	CR. 495m^2 foyer space is required for Cinemas. Details required at Construction Certificate stage
NSW H101.4	**Sprinkler system for common foyers** Multiple auditoriums with a common foyer are to be provided with: • A foyer serving not more than 2 *auditoriums*; that foyer must be separated from any adjoining foyer by construction having an FRL of not less than 60/60/60. • A foyer serving more than 2 *auditoriums*, a sprinkler system complying with Specification E1.5 must be installed throughout the *storey* containing the foyer; and throughout each *storey* in the building below that *storey*	CR. Entire Retail / Cinema building requires a sprinkler system throughout. Details required at Construction Certificate stage
NSW H101.5	**Conventional Stage** This clause applies to a conventional *stage*, that is, a *stage* which is separated from the *auditorium* by a proscenium wall incorporating a proscenium opening. • The floor area of the stage includes any room or area not separated from the *stage* by construction having an FRL of not less than 60/60/60. • 2 means of egress must be provided from the stage other than through the proscenium opening. • A stage with a floor area more than 150m^2 must be provided with sprinkler system; must have a safety curtain to the proscenium opening with drenchers to the stage side. • A stage that is more than 50m^2 and all areas below (except the proscenium opening) must be separated from the remainder of the building with construction having an FRL of 60/60/60.	NA.
NSW H101.6	**Non-conventional Stage** A stage that is not a conventional stage must have 2 means of egress from the backstage area	NA
NSW H101.7	**Flying Scenery** Where a means of flying scenery is provided over the stage: • The stage must be provided with sprinklers, • The gallery must comply with AS1657, be non-combustible, have 2 means of egress, • Roof, gallery must be designed so that structural failure in a fire does not affect the building wall structure, and • Steel supporting the stage tower must be enclosed with masonry of concrete with an FRL of 120/120/120.	NA.

Section H	Entertainment Venues	Comment
NSW H101.8	**Load Notice** The actual distributed and concentrated design loads for the stage floor is to be displayed adjacent to the stage on a notice with letters of at least 50mm on a contrasting background.	NA
NSW H101.10	**Safety Curtains** Safety curtain required by NSW Cl H101.5.3 must be of non-combustible construction, be smoke sealed, withstand a pressure differential of 0.5kPa, run on steel guides, remain engaged in its guides if subject to a pressure differential of 1.0kPa, withstand damage from scenery, capable of closing within 30 seconds, have manual controls, be provided with a signage for the operating controls, be provided with an audible warning alarm, must not be reliant solely on the primary electricity supply and be provided with signage on the auditorium side.	NA.
NSW H101.11	**Seating in Rows** This clause does not apply to seating at tables or continental seating.	Noted
NSW H101.11.1	**Number of Seats** Where seating is arranged in rows, the maximum of seats in each row must not exceed- (a) 8 where there is an aisle at one end only of the row; or (b) l6 where there are aisles on both ends of the row.	Complies
NSW H101.11.2	**Chairs used for Seating** Chairs used for seating must— This clause does not apply to seating at tables or continental seating. (a) where they have arms, be at least 500 mm from centre to centre; and (b) where they do not have arms, be at least 450 mm from centre to centre; and (c) have a minimum lateral clearance of at least 300 mm between— (i) the front of each chair and the back of the chair in front; or (ii) if a guardrail is provided in front of the chairs, between the front of each chair and the guardrail; and (d) have a distance of at least 950 mm between the back of each chair and the back of the chair in front.	CR. Details required at Construction Certificate stage
NSW H101.12	**Continental Seating** Continental seating must be securely fastened to the floor, must not exceed 120 seats in a row and be in accordance with NSW Table H101.12	NA.
NSW H101.13.1	**Provision of Guardrails** Guardrails must be provided along the fascia of each balcony or box, along the front edge of each cross-over, and where NSW Cl H101.13.2 (Fixed back seats) or NSW H101.13.3 (Steps between platforms) applies.	NA.

Section H	Entertainment Venues	Comment
NSW H101.13.2	**Fixed Back Seats** If seats with fixed backs are provided, guardrails that extend for the full width of the seating, must be provided at least 500 mm above the platform unless— (a) fixed seat backs of the next lower level project at least 500 mm above the level of the stepped platform; and (b) there is only one riser between the platform and the next lower cross-over.	CR. Details required at Construction Certificate stage.
NSW H101.13.3	**Steps between Platforms** If seats with fixed backs are provided, guardrails that extend for the full width of the seating, must be provided at least 500 mm above the platform unless— (a) there is more than one intervening step in an aisle between levels of platforms, a guardrail must be provided (at a vertical height of at least 660 mm measured above the nosing of each tread and of the upper platform) to the sides of the aisle adjacent to those steps; and (b) there is more than one intervening step in an aisle between levels of platforms, and that aisle is along a wall, a continuous guardrail must be affixed to that wall at a height of at least 865 mm above the nosing of each tread; and (c) the end of a platform or the back of the highest platform does not abut a wall that extends at least 660 mm above the floor level of the platform, a guard rail not less than 660 mm high must be provided— (i) at the ends of the platform, extending from the front of the first riser to the back of the highest platform; and (ii) at the back of the highest platform, extending the full width of the platform; and (d) there is an inclined floor, the raised section of which is not bounded by walls at least 660 mm high, a guard rail must be provided that extends around the perimeter of the raised section at a height of at least 660 mm above the inclined floor level; and (e) seating at tables is provided on a stepped platform, a guardrail at least 500 mm high must be provided along the front edge of the platform.	CR. Details required at Construction Certificate stage.
NSW H101.14	**Guardrails** This clause applies to seating areas.	NA
NSW H101.14.1	**Continental Seating** Where a guardrail is provided in front of a row of chairs— (a) the distance between the back of each chair in that row, and the guardrail must be not less than the distance specified in Column 2 of Table H101.12 for the number of chairs in that row; (b) the minimum lateral clearance between the front of each chair in that row and the guardrail must be not less than the clearance specified in Column 3 of Table H101.12 for the number of chairs in that row.	NA

Section H	Entertainment Venues	Comment
NSW H101.14.2	**Balconies and Boxes** A guardrail provided along the fascia of a balcony or box— (a) if it is located at the foot of a stepped aisle, must have its top surface at least 900 mm above the floor of the balcony or box; and (b) if it is not located at the foot of a stepped aisle, must have its top surface at least 750 mm above the floor; and (c) if it has a ledge more than 70 mm wide, must have the top surface of the ledge sloping downwards towards the floor of the balcony or box at an angle of at least 30 degrees from the horizontal; and (d) must have an unperforated kerb or toe guard extending for at least 300 mm above the floor.	CR. Details required at Construction Certificate stage.
NSW H101.14.3	**Cross-overs** A guardrail provided along the front edge of a cross-over on a stepped floor— (a) must be at least 750 mm high; and (b) must extend for the full distance between aisles, or between a wall and an aisle, or for such other distance as considered necessary.	CR. Details required at Construction Certificate stage.
NSW H101.15	**Dressing Rooms** A dressing room or 2 or more dressing rooms having a floor area more than 50m^2 must be: • separated from the remainder of the building with construction having an FRL of 60/60/60, and • be provided with 2 means of egress as remote as possible, one of which must discharge direct to open space or through a fire –isolated exit.	NA
NSW H101.16	**Storerooms** Storerooms must be fire separated from the remainder of the building with construction having a FRL of not less than 60/60/60.	CR. Proposed within the Entertainment Venue portion of the building must be fire separated from the remainder of the building with construction having an FRL of 60/60/60.
NSW H101.17	**Projection Suites** (a) This clause applies to projection suites. (b) A projection suite must be provided in an entertainment venue intended to be used for the showing of films.	Noted

Section H	Entertainment Venues	Comment
NSW H101.17.1	**Rooms to be provided** A projection suite in accordance with the staffing requirements of Schedule 3A of the Environmental Planning and Assessment Regulation 2000 must contain either— (a) a projection room and sanitary accommodation comprising at least 1 closet pan and 1 washbasin, where the projection suite is continually staffed; or (b) a projection room fitted with the following equipment— (i) an automatic fire suppression system in accordance with SSL Appraisal Specification FAS 102 or a sprinkler system complying with AS 2118; and (ii) a smoke detection system which will— A. comply with AS 1670.1 except for the provisions of Clause 3.28(f) -location where detectors not required; and B. be connected to a fire station or other approved monitoring service where arrangements are in place to initiate fire brigade response; and C. close down all shutters fitted to projection or observation ports; and D. activate sufficient general lighting to provide a minimum of 40 lux measured at floor level in any auditorium affected; and E. operate a public address system to automatically announce a suitable message from the management of the premises; and F. activate an audible alarm to immediately indicate to management the presence of smoke in the projection room.	CR. Details on proposed projection suite and staffing to be confirmed. Details required at Construction Certificate stage
NSW H101.17.2	**Fire Separation** A projection suite must be separated from all other internal parts of the building in which it is located by construction having an FRL of not less than 60/60/60.	CR. Details required at Construction Certificate stage.
NSW H101.17.3	**Concession for the Protection of Some Openings** If a projection or observation port is not more than 0.1 m^2 in area— (a) a metal shutter not less than 1.5 mm thick may be fitted thereto instead of the protection required under NSW C3.11; and (b) any metal shutter or protection system provided must be equipped with a device to permit the closing of the shutter or protection system from easily accessible operating positions adjacent to each egress doorway from the projection room.	CR. Details required at Construction Certificate stage.
NSW H101.18	**Basement Storeys** An entertainment venue containing up to 2 basement storeys must have the exits from the basement levels enclosed in non-combustible construction and air handling to the basement in accordance with AS1668.2. An entertainment venue containing more than 2 basement storeys must be of Type B Construction, required exits from the basement must be fire-isolated and the building must be provided with a sprinkler system throughout.	NA
NSW H101.19	**Electrical mains installation**	Noted

Section H	Entertainment Venues	Comment
NSW H101.19.1	**Main Switchboard** The switchboard containing the main isolation switch must— (a) be located in a position that is readily accessible to authorised persons, and to the Fire Brigade in the case of an emergency; and (b) be enclosed by construction having an FRL not less than 60/60/60.	CR. Details required at Construction Certificate stage.
NSW H101.19.2	**Circuit Protection** Protection of a final sub-circuit originating at a switchboard or distribution board must be by means of circuit breakers.	CR. Details required at Construction Certificate stage.
NSW H101.19.3	**Separate Sub-mains** Where an entertainment venue has its mains supply in common with that of another building or where it is a part of a building— (a) the entertainment venue must be served by a separate and independent sub-main from the main switchboard; and (b) each such sub-main, the consumer's main and the supply authority's conductors within the building must be protected against fire by means of— (i) mineral-insulated metal-sheathed cables or other cables that provide at least 2 hours' fire protection; or (ii) heavy-duty PVC conduit or metallic pipe, concrete encased in walls or slabs with a minimum of 50 mm cover; or (iii) heavy-duty PVC conduit or metallic pipe, buried at least 500 mm below ground level, for underground cabling.	CR. Details required at Construction Certificate stage.
NSW H101.20	**Lighting**	Noted
NSW H101.20.1	**Lighting Switches** (a) Any switch controlling the lighting system must not be accessible. (b) Where, during normal use, general lighting may be dimmed or switched off, an override switch to switch on all the general lighting instantaneously must be installed in the auditorium in a position accessible to management.	CR. Details required at Construction Certificate stage.
NSW H101.20.2	**Lighting Levels** Where the lamps utilised in the general lighting are of a type that will not relight immediately after the restoration of the primary electricity supply to those lamps— (a) a time delay or other suitable means must be provided to maintain the emergency lighting for a period not less than that necessary to allow the general lighting lamps to restrike; or (b) lamps of a type that will provide immediate lighting must be installed and— (i) arranged in such a manner as to ensure visual conditions not inferior to those required to be provided by the emergency lighting; and (ii) capable of being switched in common with the general lighting and of being controlled also by the override switch required by NSW H101.20.1(b).	CR. Details required at Construction Certificate stage.

Section H	Entertainment Venues	Comment
NSW H101.20.3	**Provision of Aisle Lighting** Where general lighting is to be either dimmed or extinguished when the public is in attendance and where the floor is stepped or at an inclination greater than 1 in 12, aisle lights must be provided to illuminate the length of each aisle and the tread of each step therein.	CR. Details required at Construction Certificate stage.
NSW H101.20.4	**Aisle Lighting Power Supply** Where an aisle light is installed in a seat frame, it must be supplied at a voltage of not more than 32 volts AC or 115 volts DC.	CR. Details required at Construction Certificate stage.
NSW H101.20.5	**Aisle Lighting Alternative Power Supply** Aisle lighting must be provided with an alternative electricity supply that— (a) is capable of being automatically energised in the event of failure of the primary lighting electricity supply; and (b) complies with the provisions applying to emergency lighting.	CR. Details required at Construction Certificate stage.
NSW H101.22	**Automatic smoke-and-heat vents for stages** Automatic smoke and heat vents required by NSW Table E2.2b must be capable of automatic operation activated at a temperature of not more than 71ºC, must be capable of manual operation, must have a notice indicating the method of activation and have an openable area of not less than 1/10 the total stage area.	NA
NSW H101.23	**Solid fuel burning stoves and open fire places** Solid fuel burning stoves and fire places must not be installed in premises used for the purposes of exhibiting films or conducting live theatre productions	NA
NSW H101.24	**Fuel gas cylinders** Fuel Gas Cylinders to be located outside the building in accordance with LP Gas Installation Code.	NA

Section J	Energy Efficiency	Comment
PART J1	**Building Fabric**	CR. Details of R-Values of 3.2 required for roof/ceiling construction and R-Values of 2.8 required for external walls. Glazing Uw & SHGCw Values to be reviewed as part of CC documentation.
PART J2	**External Glazing**	CR. Glazing Uw & SHGCw Values for external windows/doors (& internal windows/doors forming part of envelope) and details of external shading to be reviewed as part of CC documentation.
PART J3	**Building Sealing**	

Section J	Energy Efficiency	Comment
J3.1	**Application of part** Applies to envelope of Class 2 to 9 Building, other than a) Building in Climate Zones 1, 2, 3 & 5 where only means of air conditioning is be using an evaporative cooler; or b) A permanent building opening, in a space where a gas appliance is located, that is necessary for the safe operation of a gas appliance, or c) A building or space where mech. Ventilation required by BCA Part F4 provides sufficient pressurisation to prevent infiltration.	CR. Details to be provided with design documentation.
J3.2	**Chimneys and Flues**	NA
J3.3	**Roof Lights** A roof light serving a conditioned space or habitable room in Climate zones 4 to 8 must be sealed or capable of being sealed, constructed with; • An imperforate ceiling diffuser or the like installed at the ceiling or internal lining level; or • A weatherproof seal; or • A shutter system readily operated either manually, mechanically or electronically by the occupant.	CR. Details to be provided with design documentation.
J3.4	**Windows and Doors** A seal to restrict air infiltration is to be fitted to each edge of the proposed external doors, openable external windows or the like that form part of the envelope of the *'conditioned space'* of the building, ie: • These requirements do not apply to a window complying with AS 2047-1999, and • For an external swing door, the bottom edge seal must be a draft protection device, and • For other edges of an external door or the edges of an openable window or other such opening, may be a foam or rubber compressible strip, fibrous sea, etc. The external entrance doors must be provided with a self-closing device with the exception of a single set of main entrance to the café.	CR. Details to be provided with design documentation.
J3.5	**Exhaust Fans** Miscellaneous exhaust fans where proposed are to be fitted with a sealing device such as self-closing damper or the like when serving the envelope of the *'conditioned space'* of the building.	CR. Details to be provided with design documentation.
J3.6	**Construction of Roofs, Walls and Floors** Roofs, external walls, external floors and any opening such as a window, door or the like to the building must be constructed to minimize air leakage when forming part of the envelope of the *'conditioned space'* of the. This necessitates construction around openings are to be: • enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions; or • sealed by caulking, skirting, architraves, cornices or the like.	CR. Details to be provided with design documentation.
J3.7	**Evaporative Coolers** Any evaporative cooler installed to serve the building must be fitted with a self-closing damper or the like.	CR. Details to be provided with design documentation.

Section J	Energy Efficiency	Comment
PART J4	**Air Movement**	NA
PART J5	**Air-conditioning and Ventilation Systems**	CR. Details are to be included in Mechanical plans, specification and certification.
PART J6	**Artificial Lighting and Power**	CR. Details are to be included in Electrical plans, specification and certification.
PART J7	**Hot Water Supply**	CR. Details are to be included in Hydraulic plans, specification and certification.
PART J8	**Maintenance**	CR Details to be included in the Construction Approval documentation.

ANNEXURE B

Schedule of Essential Fire Safety Measures

It is recommended that the building be provided with the following proposed essential fire safety measures, capable of performing and being maintained to the standard listed in the Schedule below. For the purposes of Clause 168 of the Environmental Planning and Assessment Regulation 2000, these standards will be considered to be the current fire safety schedule for the building.

PRELIMINARY SCHEDULE

Measure	Design/ Installation Standard
Automatic Fire Detection and Alarm System	BCA Specification E2.2a Clause 5 and AS1670.1 - 2015
Automatic Fire Suppression System	BCA Clauses E1.5, Table E2.2a, Specification E1.5 & AS 2118.1 – 1999
Emergency Lighting	BCA Clause E4.2, E4.4 & AS2293.1 – 2005
Emergency Evacuation Plan	AS3745 – 2010
Exit Signs	BCA Clauses E4.5, E4.6 & E4.8 and AS2293.1 – 2005
Fire Doors	BCA Clause C3.5, C3.8, NSW H101.2, NSW H101.16 and AS1905.1 – 2015
Fire Hose Reel System	BCA Clause E1.4 & AS2441 – 2005
Fire Hydrant System	BCA Clause E1.3 & AS2419.1 – 2005
Fire Seals	Manufacturers Specification, BCA Clauses C3.12, C3.13, C3.15 & AS1530.4 – 2014
Mechanical Ventilation (Auto Shutdown)	BCA Specification E2.2a & AS/NZS 1668.1 – 2015
Paths of Travel	EP & A Regulations 2000 Part 9 Division 7
Portable Fire Extinguishers	BCA Clause E1.6 & AS2444 – 2001
Protection of Openings	BCA Clauses C3.2, C3.3 & other standards (method of protection tbc)
Sliding Fire Doors	BCA Clause C3.6 & S1670.1 - 2015
Smoke Exhaust System	BCA (NSW) Table E2.2b, Specification E2.2b & AS/NZS1668.1 - 2015
Sound Systems and Intercom Systems for Emergency Purposes (EWIS)	BCA Clause E4.9 & AS1670.4 - 2015
Stair Pressurisation System	BCA Clause D1.7, Table E2.2a & AS/NZS1668.1 - 2015
Warning and Operation Signs	BCA Clause D2.23, E3.3 and EP&A Reg 2000 Clause 183

The above list is indicative only and may be subject to variation with any Alternative Fire Engineered Solution Report.

ANNEXURE C

Lasso Road, Gregory Hills - Occupancy Numbers

Ground Floor

Tenancy Area (m^2)	**Effective Area** (eg Minus 25% storage, etc)	**Population** (Based on seating; or 1m^2 / person for café, kiosk, restaurant; or 3m^2 / person for shop)
0	0	0
89	66.75	22
146	109.5	37
146	109.5	37
219	164.25	55
215	161.25	54
294	220.5	221
238	178.5	179
119	89.25	89
100	75	75
506	379.5	127
Mall seating		97
Mall general		100
Total		**1091**

Ground Floor Indoor Recreation 1

Tenancy Area (m^2)	**Effective Area** (eg Minus 20% storage etc)	**Population** (Based on seating; or 4m^2 / person)
3100	2480	**620**

First Floor

Tenancy Area (m^2) or Use	**Effective Area** (eg Minus 10% storage etc or Foyer Area)	**Population** (Based on seating; or 4m^2 / person)
Cinema 1		434
Cinema 2		235
Cinema 3		219
Cinema 4		220
Cinema 5		205
Cinema 6		134
Cinema 7		155
Cinema 8		182
Cinema 9		195
Subtotal		**1979**
Foyer	495	495
Indoor Recreation 2	1605	401
Indoor Recreation 3	1335	334
Total		**3209**

ANNEXURE D

EP & A Regulation 2000 - Schedule 3A Entertainment venues (extract)

4 Projection Suites

(1) (Repealed)

(2) When a film is being screened at an entertainment venue, at least one person trained in the operation of the projectors being used and in the use of the fire fighting equipment provided in the room where the projectors are installed (the projection room) must be in attendance at the entertainment venue.

(3) If the projection room is not fitted with automatic fire suppression equipment and a smoke detection system, in accordance with the Building Code of Australia, the person required by subclause (2) to be in attendance must be in the projection suite in which the projection room is located during the screening of a film.

(4) No member of the public is to be present in the projection suite during the screening of a film.

5–10 (Repealed)

11 Emergency evacuation plans

(1) An emergency evacuation plan must be prepared, maintained and implemented for any building (other than a temporary structure) used as an entertainment venue.

(2) An emergency evacuation plan is a plan that specifies the following:

(a) the location of all exits, and fire protection and safety equipment, for any part of the building used as an entertainment venue,

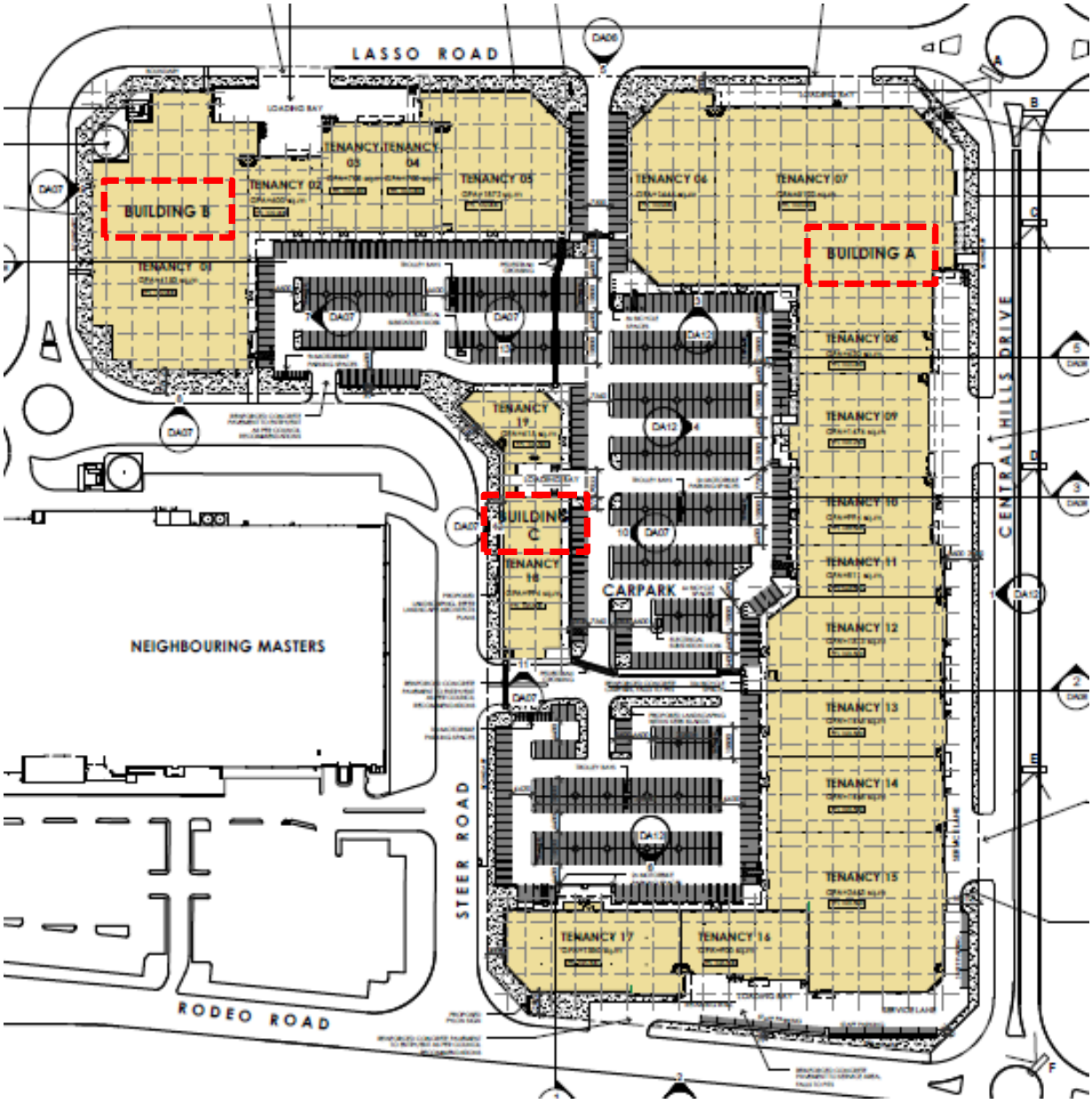
(b) the number of any fire safety officers that are to be present during performances,

(c) how the audience are to be evacuated from the building in the event of a fire or other emergency.

(3) Any fire safety officers appointed to be present during performances must have appropriate training in evacuating persons from the building in the event of a fire or other emergency.

ANNEXURE E

Current Development Consent Site Plan



Legend

Plan highlights Buildings as

Building A

Building B

Building C