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391 Pittwater Road, North Manly

BCA Report for DA

Prepared for: Rosemary Ashton
Project No: W130/Rev 2
25 May 2020

I N D E X

REPORT REVISION STATUS		
REVISION	**DATE**	**STATUS**
1	9 April 2020	Final
2	25 May 2020	Updated to reference DA plans

Signature ……..

Graham Scheffers
GRS Building Reports Pty Ltd
Accreditation No. 0364 (BPB)

Date: 25 May 2020

Executive Summary

The building, the subject of this Report, is an existing 2 storey commercial / residential building located at No 391 Pittwater Road, North Manly.

The existing building is understood to be approved for use as Medical Consulting Rooms on the Ground Floor and Residential Sole Occupancy Unit (SOU) on the First Floor. The proposed is to carry out alterations and a change of use to a Residential SOU on the Ground Floor. A small flight of external stairs is proposed for use by the First Floor occupants to enable egress direct to the carpark.

An assessment of the existing building has been undertaken in accordance with the relevant provisions of the Building Code of Australia 2019 (BCA) as required by Clause 93 &/or 94 of the Environmental Planning and Assessment Regulation 2000 (EP & A Reg) and is detailed in Section 3.1 of this Report.

Clause 93 and 94 of the EP & A Reg, are as follows;

93 Fire safety and other considerations

(1) This clause applies to a development application for a change of building use for an existing building where the applicant does not seek the rebuilding, alteration, enlargement or extension of a building.

(2) In determining the development application, the consent authority is to take into consideration whether the fire protection and structural capacity of the building will be appropriate to the building's proposed use.

(3) Consent to the change of building use sought by a development application to which this clause applies must not be granted unless the consent authority is satisfied that the building complies (or will, when completed, comply) with such of the Category 1 fire safety provisions as are applicable to the building's proposed use.

(4) Subclause (3) does not apply to the extent to which an exemption is in force under clause 187 or 188, subject to the terms of any condition or requirement referred to in clause 187 (6) or 188 (4).

94 Consent authority may require buildings to be upgraded

(1) This clause applies to a development application for development involving the rebuilding, alteration, enlargement or extension of an existing building where—

(a) the proposed building work, together with any other building work completed or authorised within the previous 3 years, represents more than half the total volume of the building, as it was before any such work was commenced, measured over its roof and external walls, or

(b) the measures contained in the building are inadequate—

(i) to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or

(ii) to restrict the spread of fire from the building to other buildings nearby.

(c) (Repealed)

(2) In determining a development application to which this clause applies, a consent authority is to take into consideration whether it would be appropriate to require the existing building to be brought into total or partial conformity with the Building Code of Australia.

Section 3.1 provides details and comments of the BCA Assessment to address the relevant provisions of BCA Parts C, D (Parts D1 & D2), E and F whilst having regard to Clause 93 &/or 94 of the Environmental Planning and Assessment Regulation 2000 with recommendations for consideration with the Development Application.

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 – Fire Safety Schedule detailing existing and proposed Essential Fire Safety Measures applicable to the subject building.

1. Introduction

1.1 Background

The building, the subject of this Report, is an existing 2 storey commercial / residential building located at No 391 Pittwater Road, North Manly. The proposed is to carry out alterations and a change of use to a Residential SOU on the Ground Floor.

GRS Building Reports Pty Ltd has been engaged by Rosemary Ashton to undertake a BCA Assessment Report for the subject building.

1.2 Aim

The aim of this Report is to:

1. Undertake an inspection of the existing building.
2. Undertake an assessment of the existing building in accordance with the relevant provisions of the Building Code of Australia 2019, (BCA), i.e.. Undertake a BCA Review of Parts C, D1, D2, E and F as detailed in Section 3.1 of this Report. This is to have regard to the provisions of Clause 93 &/or 94 of the Environmental Planning and Assessment Regulation 2000 for an existing building.
3. Undertake a review of the number of sanitary facilities for compliance with the BCA.
4. Address significant non-compliances with the BCA to ensure that the building is provided with an adequate level of fire and life safety commensurate with the community's expectations having regard to the Objectives and Performance Requirements of the BCA and Section 121B Order No. 6 of the Environmental Planning and Assessment Act 1979 which relates to the:
    - Prevention of fire
    - Suppression of fire
    - Prevention of the spread of fire
    - Safety of persons in the event of fire
5. Recommend fire and life safety upgrading works to address the non-compliances with the BCA.
6. Identify existing and proposed Essential Fire Safety Measures applicable to the subject building as detailed in Annexure A.

1.3 Documentation

The following documentation was relied upon when preparing this Report:

- Building Code of Australia 2019, (BCA).
- Plans prepared by Jaclyn Smith Architectural Design, Drawing Nos. 072015_001, 100, 101, 102, 200, 201, 300, dated 12 May 2020.
- Annual Fire Safety Statement with assessment date 13 December 2019.

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 following an inspection carried out on 18 March 2020.

1.5 BCA Terms and Definitions

The following terms are based on BCA definitions;

- ***Fire Source Feature:*** means-
  (a) The far boundary of a road, river, lake or the like adjoining the allotment; or
  (b) A side or rear boundary of the allotment; or
  (c) An external wall of another building on the allotment which is not a Class 10 building.
- ***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.
- ***Rise in Storeys*** means the greatest number of storeys calculated in accordance with C1.2.

1.6 Limitations and Exclusions

The limitations of this report are as follows:

- The assessment is limited to providing a Building Code of Australia (BCA) Report for submission to the Northern Beaches Council in relation to the proposed Development Application for the change of use to the Ground Floor.
- The Building Certifier is to determine that the relevant documentation for proposed works satisfies the BCA for the purposes of issuing a Construction Certificate. This BCA Assessment Report is an assessment of the existing building only. 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 Stage.
- The Report is based on a visual walk-through inspection of the accessible areas within the building. Concealed spaces such as voids, shafts, and the like were not inspected. Systems were not tested and building fabric was not removed to determine the method of construction.

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 /lease area, 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 Local Authority.
5. Environmental Planning and Assessment Act and 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. The provisions of BCA Part D3, the Disability Discrimination Act, National Premises Standards as this is beyond the scope.
10. Council Policy relating to Access for People with Disabilities.
11. 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 building, the subject of this Report, is an existing 2 storey commercial / residential building located at No 391 Pittwater Road, North Manly.

The existing building is understood to be approved for use as Medical Consulting Rooms on the Ground Floor and Residential Sole Occupancy Unit (SOU) on the First Floor. The proposed is to carry out alterations and a change of use to a Residential SOU on the Ground Floor. A small flight of external stairs is proposed for use by the First Floor occupants to enable egress direct to the carpark.

The existing building is generally constructed from concrete slab floors, masonry walls and metal roof.

2.2 Classification

For the purposes of the BCA, the building is classified as follows based on the proposed use:

- Class 2 Residential Flat Building

2.3 Rise in Storeys

The existing building has a rise in storeys of two (2).

2.4 Type of Construction

The building is required to be Type C Construction due to the Change in Use with separate Class 2 residential SOU's on each level. The First Floor SOU has direct access and egress to open space as a result of the proposed rear external stairway that discharges to the external carpark that connects with the street. As a result of the proposed stairway the concessional provisions of BCA Clause C1.5 applies.

2.5 Effective Height

The building has an effective height of less than 25m.

2.6 Floor Area / Volume

No floor area and volume limitations apply to the Class 2 portions of the building.

2.7 Fire Source Feature

The distances to the nearest Fire Source Feature for the existing building are estimated to be:

- Northern - > 6.0 metres to far side of Pittwater Road.
- Southern - > 1.5 metres.
- Eastern - < 1.5 metres, i.e. approx. 850mm setback.
- Western - > 1.5 metres.

3. BCA Assessment

An assessment of the existing building has been undertaken in accordance with the provisions of the Building Code of Australia 2019, (BCA).

To satisfy the requirements of Clause 93 &/or 94 of the Environmental Planning & Assessment Regulation 2000 Section 3.1 below details a summary of the BCA Fire Audit with a Recommended Strategy for consideration with the DA and to incorporate in the CC in relation to works proposed. Subject to the items in Section 3.1 being addressed, it considered that this is a reasonable strategy in relation to Clause 93 &/or 94. It is noted that new works will need to be assessment by the Accredited Certifier when the Construction Certificate is reviewed.

3.1 Clause 93 &/or 94 of Planning & Assessment Regulation 2000

In accordance with Clause 93 (2) of the Environmental Planning and Assessment Regulation, consideration whether the fire protection and structural capacity of the building will be appropriate to the building's proposed use as been reviewed and further comment is made with respect to BCA Clauses C3.2, C3.11 and C3.15 as detailed in Recommendation Nos. 1, 3, and 4 are contained in Table 3.1 of this Report.

In accordance with Clause 93 (3) The Category 1 Fire Provisions are as outlined in the Environmental Planning and Assessment Regulation and assessed as follows: -

- EP 1.3 (Fire Hydrant System) – These BCA provisions necessitate a fire hydrant system for buildings more than 500m^2. The building has a floor area of approximately 190m^2, therefore a fire hydrant system and EP1.3 is not applicable.

- EP1.4 (Sprinkler System) – These BCA provisions necessitate a sprinkler system is required to certain buildings as outlined in BCA Table E1.5. This does not apply to the subject building, therefore EP1.4 is not applicable.

- EP 1.6 (Fire Control Centre) – These BCA provisions necessitate a fire control centre for buildings more than 18,000m^2 or having an effective height of more than 25m. This does not apply to the subject building, therefore EP1.6 is not applicable.

- EP 2.1 (Automatic Warning for Sleeping Occupants) – These BCA provisions necessitate detection systems for residential use buildings. The subject building has existing smoke alarms to the Ground Floor that require review based on the layout proposed for use as residential, therefore EP2.1 is applicable. The subject building also has a First Floor that has an existing use that is residential, therefore EP2.1 is applicable. See Recommendation 11 below.

- EP 2.2 (Safe Evacuation Routes) – These BCA provisions necessitate evacuation routes must be maintained for the period of time occupants take to evacuate the part of the building. See Recommendation 3 below.

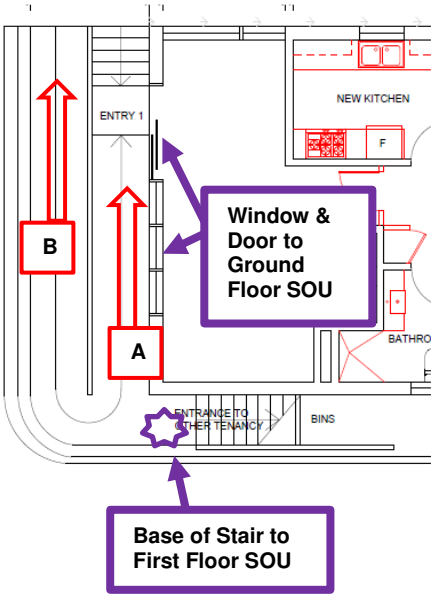
- EP 3.2 (Emergency Lifts) – These BCA provisions relate to buildings required to be provided with emergency lifts. Due to the building containing 2 storeys only, emergency lifts are not required, therefore the provisions of EP3.2 are not applicable.

In accordance with Clause 94 (1) (b), Recommendation Nos. 1 to 8, 10 to 12 are proposed to address the measures in in the building: -

(i) to protect persons using the building, and to facilitate their egress from the building, in the event of fire, or

(ii) to restrict the spread of fire from the building to other buildings nearby.

3.2 BCA Fire Audit Strategy, Acoustic Review & Recommendations

BCA Clause	Description	Strategy and Recommendations
C3.11 (d)	**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	**There are existing fire doors in the Ground Floor that are listed on the Annual Fire Safety Statement. These are not considered necessary once the works the subject of the change of use have been carried out and may be removed from the Fire Safety Schedule.** **<u>Recommendation</u>:** 1. **That the existing fire doors listed for the building may be deleted and removed from the Fire Safety Schedule when the change of use is carried out. Details to be provided with Construction Certificate documentation.**
C3.11 (g)	**Bounding construction Class 2, 3 and 4 buildings**:- In a Class 2 building where a path of travel to an exit does not provide a person seeking egress with a choice of travel in different directions to alternative exits and is along an open balcony, landing or the like and passes an external wall of— (i) another sole-occupancy unit; or (ii) a room not within a sole-occupancy unit, then that external wall must— (iii) be constructed of concrete or masonry, or be lined internally with a fire-protective covering; and (iv) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (v) have any windows or other openings— (A) protected internally in accordance with C3.4; or (B) located at least 1.5 m above the floor of the balcony, landing or the like.	**Egress from the First Floor SOU currently necessitates that occupants use the ramp system outside the main entry of the Ground Floor SOU. The ramp system is considered like an open balcony due to the First Floor extending over the area with the Ground Floor SOU.** **As shown in Figure 1 below, from the base of the existing egress stair to the First Floor SOU, occupants have a choice of using the part of the ramp and stairway immediately adjacent to the Ground Floor with 1.0m sill height / full height glazed door openings (marked as path A), or may use the ramp that is (marked as path B).**  **Figure 1 – First Floor Egress** **The proposal is for an external stair flight from the landing at the Base of the Stair to the First Floor SOU that discharges to open space. This satisfies the BCA Clause C3.11.** **<u>Recommendation</u>:** 2. **That Council accept the proposed new external stair flight from the base of the First Floor SOU egress stair.**

BCA Clause	Description	Strategy and Recommendations
C3.15	**Openings for service installations**:- Electrical, plumbing, mechanical ventilation shafts not to impair the FRL of fire rated building elements	**It would appear there are plumbing services from the First Floor SOU that pass through the floor above the Ground Floor SOU. These require review and upgrade if necessary to confirm they are fire sealed with fire collars or the like.** **<u>Recommendation</u>:** **3. That the UPVC pipes penetrating the floor above the Ground Floor SOU be reviewed and provided with fire collars if not already installed. Fire collars are to be certified to satisfy the requirements of BCA Clause C3.15, Specification C3.15, AS1530.4 – 2014 and AS4072.1 2005. Details to be in the Construction Certificate documentation.**
D1.6	**Dimensions of exits**:- • Unobstructed height of an exit not less than 2m (1980mm for doorways); • 1m minimum width of a single exit. • door width to be a minimum of 800mm clear unobstructed area (in accordance with AS 1428.1) • 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	**The external stairway used for egress from the First Floor SOU has a width less than 1.0m (i.e. approximately 860mm) and the stairway leading to the ramp system in path A marked in Figure 1 above, has a width less than 1.0m (i.e. approximately 990mm).** **It is proposed that this need not be upgraded on the basis that the width is greater than the minimum width of a doorway, occupants are familiar with the configuration of the stairs and there is a relatively small number of occupants, therefore the reduced width is unlikely to impact egress** **<u>Recommendation</u>:** **4. That Council accept the reduced width of the external stairways.**

<table>
<tr><th>BCA Clause</th><th>Description</th><th>Strategy and Recommendations</th></tr>
<tr>
<td>D2.13</td>
<td>
Goings 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;
adjacent risers, or between adjacent goings is no more than 5mm, and
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;
No winders in lieu of a quarter landing

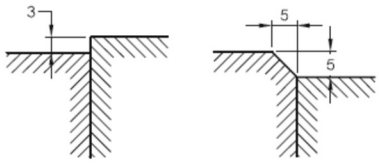


Figure 2 – Acceptable Tolerance for Abutment of Surfaces
<table>
<tr><th rowspan="2">Application</th><th colspan="2">Surface Conditions</th></tr>
<tr><th>Dry</th><th>Wet</th></tr>
<tr><td>Nosing</td><td>P3</td><td>P4</td></tr>
</table>
Figure 3 – Extract BCA Table D2.14
</td>
<td>
Inspection revealed the following;
<u>Main External Stair to First Floor</u>;

The goings vary by more than 5mm adjacent (i.e. approx. 10mm) and by more than 10mm in flight (i.e. approx. 10-15mm). Stairway has concrete finish.

<u>Front Ground Floor External Stair</u>;

The goings & risers vary by more than 5mm adjacent (i.e. approx. 20mm) and by more than 10mm in flight (i.e. approx. 10-25mm). Stairway has black nosings installed.
Goings are less than the minimum dimension of 240mm, i.e. 235mm.

<u>Rear Ground Floor External Stair</u>;

The goings vary by more than 5mm adjacent (i.e. approx. 15mm) and by more than 10mm in flight (i.e. approx. 10-20mm). Stairway has yellow nosings installed.

The above variations to the stairs appear to have existed since the original building was constructed. Rectification would be difficult without reconstruction of the stairs. Occupants would generally be familiar with the stairway configuration or would benefit with installation of contrasting stair nosings to the First Floor stair in a contrasting colour that would assist to minimise slips and falls plus retention of existing nosings to the Ground Floor stairs.
<u>Recommendation</u>:
5. That existing Ground Floor stairs be accepted with the existing nosings being retained. That the First Floor external stair be accepted subject to:-
a) Installation of stair nosings strips at least 50mm deep, across the full width of the stair with the strip having a minimum luminance contrast of 30% to the background (e.g. yellow nosing strip on existing concrete tread) to identify the nosings, and
b) Nosings strips are to be fitted so that the abutment of surfaces has a smooth transition with the following construction tolerances: 1) +/- 3mm vertically, or 2) +/- 5mm provided the edges have a bevelled or round edge to reduce the likelihood of tripping as detailed in Figure 2 of this Report, and
c) Nosings to have slip resistance classification consistent with Table D2.14 and AS4586-2013 as shown in Figure 3 of this Report, and
d) Where suitable, e.g. concrete stairs, a durable painted or similar nosing may be used.
Details to be in the Construction Certificate documentation.
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</table>

BCA Clause	Description	Strategy and Recommendations
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 and gaps to be not greater than 125mm (i.e. 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.	**The existing balustrades to the First Floor rear stairway has gaps greater than 125mm (i.e. approx. 135mm) above the solid wall to the landing.** **<u>Recommendation</u>:** **6. That the gap between the wall and metal rail to the landing of the First Floor rear stair be upgraded so that the gap is not greater than 125mm, i.e. 125mm sphere must not pass through it. Details to be in the Construction Certificate documentation.**
D2.17	**Handrails**:- • Located on at least one side of ramp or stairs at a height of at least 865mm; • 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; • continuous between stair flight landings.	**There is no handrail provided to rear Ground Floor stairway.** **<u>Recommendation</u>:** **7. That the rear Ground Floor stairway be provided with a handrail at a height of at least 865mm. Details to be in the Construction Certificate documentation.**
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 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) 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.	**The First Floor rear bedroom window has awning winder type windows. Subject to these windows opening no more than 125mm so as not to permit a 125mm sphere to pass through, this may achieve compliance.** **<u>Recommendation</u>:** **8. That the First Floor rear bedroom window be verified that the window opens no more than 125mm so as not to permit a 125mm sphere to pass through and resist an outward horizontal action of 250N. Details to be in the Construction Certificate documentation.**

BCA Clause	Description	Strategy and Recommendations
E1.6	**Portable Extinguishers**:- To be installed to AS2444	**There are existing portable fire extinguishers provided.** **<u>Recommendation</u>:** **9. That the existing portable fire extinguisher/s provided, be reviewed in conjunction with proposed works and updated certification confirming compliance with BCA Clause E1.6 & AS2444-2001 to be provided. Details required with Construction Certificate documentation.**
E2.2	**General requirements for smoke hazard management** (including Tables E2.2a & E2.2b). • Class 2 Building – Must be provided with a smoke detection and alarm system in accordance with BCA Specification E2.2a	**Smoke alarms are provided to the Ground Floor and First Floor SOU. Verification required that smoke alarms installed are connected to consumer mains. Also Ground Floor smoke alarms to be reviewed based on layout of SOU.** **<u>Recommendation</u>:** **10. That the Smoke alarms within the Ground and First Floor SOU be verified confirming they are connected to the consumer mains. Also Ground Floor smoke alarms to be reviewed based on layout of SOU. Details to be provided with Construction Certificate documentation.**
E4.5 & E4.6	**Exit signs and Directional 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. Exits must be readily apparent with directional exit signage as required.	**There are existing exit signs listed on the Annual Fire Safety Statement. These are not considered necessary once the works the subject of the change of use have been carried out and may be removed from the Fire Safety Schedule.** **<u>Recommendation</u>:** **11. That the existing exit sign listed for the building may be deleted and removed from the Fire Safety Schedule when the change of use is carried out. Details to be provided with Construction Certificate documentation.**

BCA Clause	Description	Strategy and Recommendations
F5.4	**Sound Insulation of floors**:- A floor in a Class 2 or 3 building must have an Rw + Ctr (airborne) not less than 50 and an Ln,w (impact) not more than 62 if it separates— • SOU's; or • a SOU from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification.	**Additional information is required to confirm the sound insulation for the existing concrete floor separating the existing First Floor SOU from the proposed Ground Floor SOU is adequate or requires upgrade to satisfy BCA Clause F5.4.** **A typical concrete floor constructed to achieve this is as follows;** • **150mm thick concrete slab, and** • **65mm thick polyester insulation with a density of 8kg/m3 positions between furring channels, and** • **28mm metal furring channels and isolation mounts fixed to underside of slab at 600mm centres, and** • **One layers of 13mm plasterboard fixed to furring channels.** **<u>Recommendation</u>:** **12. That the existing floor above the Ground Floor SOU be reviewed and upgraded where necessary to achieve the sound insulation requirements to satisfy BCA Clause F5.4. Details to be provided with Construction Certificate documentation.**
F5.6	**Sound insulating rating of services**:- If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one SOU, the duct or pipe must be separated from the rooms of any SOU by construction with an $R_w + C_{tr}$ (airborne) not less than— • 40 if the adjacent room is a habitable room (other than a kitchen); or • 25 if the adjacent room is a kitchen or non- habitable room.	**Additional information is required to confirm the sound insulation for the existing services are adequate or requires upgrade to satisfy BCA Clause F5.6.** **<u>Recommendation</u>:** **13. That the existing waste or water supply pipes, where located in a wall or floor cavity, serves or passes through more than one SOU be reviewed and upgraded where necessary to achieve the sound insulation requirements to satisfy BCA Clause F5.6. Details to be provided with Construction Certificate documentation.**

Table 3.1 – BCA Fire Audit Strategy and Recommendations

ANNEXURE A

Building Code of Australia 2019
Deemed-To-Satisfy Assessment (Clause by Clause)
(Class 2-9 Buildings)

Classification of Building or Part:	2.
Rise in Storeys:	Two (2)
Type of Construction:	Type C
Effective height	< 25m

Key:

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

DNC The existing 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 existing building or 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 existing 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 C	**Fire Resistance**	**Comment**
Part C1	**FIRE RESITANCE AND STABILITY**	
C1.1	**Type of Construction**	Type C.
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	Two (2)
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.

Section C	Fire Resistance	Comment
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, due to First Floor dwelling does not have its own access to open space, i.e. to gain access and for egress occupants must use the ramp / stair system outside the Ground Floor dwelling that is beneath the building above.
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.	NA
C1.10	**Early Fire Hazard Properties**:- Materials and assemblies used in the building must comply with the requirements of Specification C1.10.	Complies. Existing common area to stair / ramp system is predominantly tiles / concrete for floors and rendered brick for walls, and concrete for ceilings. NA. Finishes within individual SOU's not assessed as this would have minimal impact on the tenability of the egress stairs and is difficult to monitor.
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. External walls are concrete block or masonry.
C1.12	**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	Noted

Section C	Fire Resistance	Comment
C1.13	**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.	Noted
Part C2	**FIRE RESISTANCE**	
C2.2	**General Floor Area Limitations**:	NA
C2.3	**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. Buildings are permitted to exceeds maximum floor area setout in C2.2 subject to; • Floor area must not exceed 18,000m^2, and • Building being Class 7 or 8 only, and • Contain not more than 2 storeys, and • Is provided with open space compliant with BCA Clause C2.4 (a).	NA
C2.4	**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.	NA
C2.5	**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	NA
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

Section C	Fire Resistance	Comment
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.	NA
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.	NA. Same FRL's applies throughout.
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).	NA. Same FRL's applies throughout. See also comments at Specification C1.1.
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).	NA
C2.11	**Stairways and lifts in one shaft**:- Not to be in the same shaft if either is to be fire isolated.	NA
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.	NA. Nil existing services as listed evident in portion of building reviewed.
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.	NA. Nil existing services as listed evident in portion of building reviewed.
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**	

Section C	Fire Resistance	Comment
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	Complies. windows in eastern external wall within 1.5m of side boundary (i.e. approximately 850mm) are protected by fire rated shutters. Complies. Other existing window in the northern external wall are more than 1.5m from the eastern side boundary (i.e. approximately 2.5m).
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.	NA
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.	Complies. Existing openings in eastern external wall are protected by fire rated shutters. DNC. Existing unprotected window in the northern external wall within 3.0m of the eastern side boundary (i.e. approximately 2.5m).
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	NA. No doors in any Fire Walls existing.
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	NA.
C3. 7	**Protection of doorways in horizontal exits**:- To be self-closing or automatic closing fire doors	NA
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.	NA
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.	NA
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	NA.

Section C	Fire Resistance	Comment
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 In a Class 2 or 3 building where a path of travel to an exit does not provide a person seeking egress with a choice of travel in different directions to alternative exits and is along an open balcony, landing or the like and passes an external wall of— (vi) another sole-occupancy unit; or (vii) a room not within a sole-occupancy unit, then that external wall must— (viii) be constructed of concrete or masonry, or be lined internally with a fire-protective covering; and (ix) have any doorway fitted with a self-closing, tight-fitting solid core door not less than 35 mm thick; and (x) have any windows or other openings— (C) protected internally in accordance with C3.4; or (D) located at least 1.5 m above the floor of the balcony, landing or the like.	DNC. The existing path of travel from the First Floor SOU necessitates that occupants use the ramp system outside the main entry of the Ground Floor SOU. The ramp system is considered like an open balcony due to the First Floor extending over the area with the Ground Floor SOU having windows with a sill of approximately 1.0m and full height glazed doors that are in the wall along the ramp system. The proposed new external stair flight will address this. ? Fire doors within existing Ground Floor SOU that are not required as a result of the change of use.
C3.12	**Openings in floors for services**:- To be enclosed in fire rated shaft with FRL in accordance with Specification C1.1	NA.
C3.13	**Openings in shafts**:- Openings to shafts must be protected with a self-closing -/60/30 fire door or hopper.	NA.
C3.15	**Openings for service installations**:- Electrical, plumbing, mechanical ventilation shafts not to impair the FRL of fire rated building elements	? It would appear there are plumbing services from the First Floor SOU that pass through the floor above the Ground Floor SOU. These require review and upgrade if necessary to confirm they are fire sealed with fire collars or the like.
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	Complies. No deficiencies evident.
C3.17	**Columns protected with lightweight construction to achieve an FRL**	NA
Specification C1.1	**Fire Resisting Construction:-** The building is required to be designed in accordance with Table 5 (Type C Construction) of the BCA	Complies. Separating floor appears to be concrete throughout that is likely to readily achieve FRL of 30/30/30 or equivalent of fire protective covering. Masonry walls throughout.

Section D	Access and Egress	Comment
PART D1	**PROVISION FOR ESCAPE**	

Section D	Access and Egress	Comment
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.	NA
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.	Complies.
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.	Complies.
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 200 persons the aggregate unobstructed width of the exit must not be less than 1m plus 250mm for every person in excess of 100 • door width to be a minimum of 800mm clear unobstructed area (in accordance with AS 1428.1) • 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	DNC. The external stairway used for egress from the First Floor SOU has a width less than 1.0m (i.e. approximately 860mm) and the stairway leading to the ramp system has a width less than 1.0m (i.e. approximately 990mm)

Section D	Access and Egress	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, unless that part of the wall has an FRL of 60/60/60 and any doors are protected in accordance with C3.4. If > 2 doors open into exit – pressurisation; or smoke lobbies to be provided.	NA
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.	Complies
D1.10	**Discharge from exits**:- • Not to be blocked at the point of discharge to open space with path of travel to road being not < 1.0m wide. • 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).	Complies
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.	Noted
D1.13	**Number of persons accommodated**:- In accordance with Table D1.13, unless confirmation from building owner is more accurate.	Noted
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 D	Access and Egress	Comment
D1.16	**Plant rooms, lift machine rooms and electrical network substations: Concession**:-	NA.
D1.17	**Access to lift pits**:-	NA.
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
D2.2	**Fire-Isolated stairways & ramps**:- Must be within fire resisting shaft and be constructed of non-combustible materials	NA.
D2.3	**Non-Fire-Isolated stairways and ramps**:- Rise in Storeys > 2, 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%	Complies
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.	NA.
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 6m2 minimum; • be separated by walls impervious to smoke; • be fitted with smoke doors; • be pressurised if the adjoining exit are so required.	NA
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	Complies
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.	Complies. No internal stairways.

Section D	Access and Egress	Comment
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.	Noted
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 non-slip finish	NA
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; • No winders in lieu of a quarter landing	DNC. Inspection revealed the following; <u>Main External Stair to First Floor</u>; • The goings vary by more than 5mm adjacent (i.e. approx. 10mm) and by more than 10mm in flight (ie approx. 10-15mm). • Stairway has concrete finish. <u>Front Ground Floor External Stair</u>; • The goings & risers vary by more than 5mm adjacent (i.e. approx. 20mm) and by more than 10mm in flight (ie approx. 10-25mm). • Goings are less than the minimum dimension of 240mm, i.e. 235mm. • Stairway has black nosings installed. <u>Rear Ground Floor External Stair</u>; • The goings vary by more than 5mm adjacent (i.e. approx. 15mm) and by more than 10mm in flight (ie approx. 10-20mm). • Stairway has yellow nosings installed.

Section D	Access and Egress	Comment
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	Complies
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); • Health care and aged care buildings have concessions	Complies
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 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.	DNC. Balustrades to First Floor rear stairway landing has gaps greater than 125mm (i.e. approx. 135mm).
D2.17	**Handrails**:- • Located on at least one side of ramp or stairs at a height of at least 865mm; • 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.	DNC. No handrail provided to rear Ground Floor stairway.
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

Section D	Access and Egress	Comment
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.	Complies.
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.	NA
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. 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.	NA
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	NA
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.	NA.

Section D	Access and Egress	Comment
D2.24	**Protection of openable windows**:- (e) 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. (f) 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. (g) 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. (h) A barrier required by (c), except for (c) 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. (i) 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.	? First Floor rear bedroom window has awning winder type windows. Subject to these windows opening no more than 125mm to permit a 125mm sphere to pass through, this may achieve compliance.
D2.25	**Timber Stairways: Concession –** Notwithstanding D2.2, timber treads, landings and supporting framework may be used in a fire-isolated exit if it is at least 44mm thick timber & an average density of not less than 800 kg/m^3 at a moisture content of 12%, subject to:- • The building has a sprinkler system throughout including in the fire-isolated exit (as per E1.5), and • Fire protection (ie 13mm fire grade plasterboard or fire protective covering) is provided to the underside of stair flights and landings located immediately above a landing i. which is at or near the level of egress, or ii. provides direct egress to a carpark.	Noted
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)	NA
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:	NA to scope of assessment, however it is noted that the building has been provided with a ramp system at Ground Floor level.

Section D	Access and Egress	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. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance.	NA to scope of assessment, however it is noted that the building has been provided with a ramp system at Ground Floor level.
D3.3	**Parts to be accessible**:- Ramps and stairways, except where exempt are to satisfy the relevant provisions 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). Ramp of passenger lift need not be provided to a storey above Ground Level in a building of Class 5, 6, 7b or 8 (containing not more than 3 storeys) if the floor area of that storey is not > 200m^2.	NA to scope of assessment, however it is noted that the building has been provided with a ramp system at Ground Floor level.
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.
D3.5	**Car Parking**:- Spaces to be provided in accordance with AS/NZS 2890.6-2009 at the rate specified in Table D3.5.	NA to scope of this assessment.
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.	NA to scope of assessment, however it is noted that the building has been provided with a ramp system at Ground Floor level.
D 3.7	**Hearing augmentation**:- Where an inbuilt amplification system (other than one used for emergency warning) is provided 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	NA

Section D	Access and Egress	Comment
D 3.8	**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	NA to scope of assessment, however it is noted that the building has been provided with a ramp system at Ground Floor level.
D3.9	**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.	NA
D3.10	**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.	NA
D3.11	**Ramps**: - An accessway must not have a series of ramps that have a combined vertical rise of more than 3.6m and a landing for a step ramp must not overlap a landing for another step ramp.	NA
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	NA to scope of this assessment.

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.	NA. Building is less than 500m^2.

Section E	Services and Equipment	Comment
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	NA
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; • Class 6 buildings with large fire compartments; • Class 9c aged care buildings; • Some large isolated buildings; • Occupancies of excessive hazard	NA
E1.6	**Portable Extinguishers**:- To be installed to AS2444	CR. Existing portable fire extinguisher/s provided. To be reviewed in conjunction with proposed works and updated certification confirming compliance with BCA Clause E1.6 & AS2444-2001 to be provided. Details required with Construction Certificate documentation.
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
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. To be assessed for Construction Certificate.
E1.10	**Provision for special hazards**	NA
PART E2	**SMOKE HAZARD MANAGEMENT**	

Section E	Services and Equipment	Comment
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
E2.2	**General requirements for smoke hazard management** (including Tables E2.2a & E2.2b). Class 2 Building – Must be provided with a smoke detection and alarm system in accordance with BCA Specification E2.2a	CR. Smoke alarms within Ground and First Floor SOU. Verification required that smoke alarms installed are connected to consumer mains. Also Ground Floor smoke alarms to be reviewed based on layout of SOU. Details required with Construction Certificate documentation.
E2.3	**Provision for special hazard**:- Additional measures to be provided due to the ; • special characteristics of the building, • special function or use of the building; • special type or quantity of materials stored, displayed or used in the building; or • special mix of classifications within a building or fire compartment.	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	NA.
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	NA.
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.	NA.
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.

Section E	Services and Equipment	Comment
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
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	NA
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	NA
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. Exit signs listed on current annual fire safety statement. These are not considered necessary once the works the subject of the change of use have been carried out.
E4.6	**Direction signs**:- Where an exit is not apparent exit signs with directional arrows are required	NA

Section E	Services and Equipment	Comment
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 or photoluminescent exit sign in accordance with BCA Specification E4.8.	NA
E4.9	**Sound systems and intercom systems for emergency purposes**:- To be installed to comply with AS 1670.4 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 > 1000m2 or RIS >2; • class 9b school with RIS 3 • class 9b theatre, public hall, etc with floor area >1000m2 or RIS >2	NA.

Section F	Health and Amenity	Comment
PART F1	**DAMP & WEATHER PROOFING**	
FP1.4	**External Walls**:- A roof or external wall must prevent the penetration of water that could cause- (a) unhealthy or dangerous conditions, or loss of amenity to occupants, and (b) undue dampness or deterioration of building elements.	Noted. No change to existing proposed.
F1.1	**Stormwater drainage**:- Collection of stormwater drainage is to comply with the consent authority's requirements and also AS/NZS3500.3-2015	Noted. No change to existing proposed.
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	Noted. No change to existing proposed.
F1.6	**Sarking**:- Where used for weatherproofing for roofs and walls must comply with AS/NZS 4200 parts 1 & 2 - 1994	NA
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 to be provided with Construction Certificate documentation.

<table>
<tr><th>Section F</th><th>Health and Amenity</th><th>Comment</th></tr>
<tr><td>F1.8</td><td>Deliberately left blank</td><td>Noted</td></tr>
<tr><td>F1.9</td><td>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.</td><td>Noted. No change to existing proposed.</td></tr>
<tr><td>F1.10</td><td>Damp-proofing of floors on the ground:-
Vapour barrier to be in accordance with AS 2870-2011.</td><td>Noted. No change to existing proposed.</td></tr>
<tr><td>F1.11</td><td>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.</td><td>Noted. No change to existing proposed.</td></tr>
<tr><td>F1.12</td><td>Sub-floor ventilation:-
SUB-FLOOR VENTILATION AND CLEARANCE
<table>
<tr><th rowspan="2">Climate zone (see Figure F1.12)</th><th colspan="2">Minimum sub-floor ventilation (mm²/m of wall)</th><th colspan="2">Minimum height from ground surface (mm)</th></tr>
<tr><th>No membrane</th><th>Ground sealed with impervious membrane</th><th>Termite inspection not required</th><th>Termite inspection required (see note)</th></tr>
<tr><td>3</td><td>6000</td><td>3000</td><td>150</td><td>400</td></tr>
</table></td><td>NA</td></tr>
<tr><td>F1.13</td><td>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.</td><td>Noted. No change to existing proposed.</td></tr>
<tr><td>PART F2</td><td colspan="2">SANITARY & OTHER FACILITIES</td></tr>
<tr><td>F2.1</td><td>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</td><td>CR. Details of laundry facilities for each dwelling to be provided with Construction Certificate documentation.</td></tr>
<tr><td>F2.2</td><td>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.</td><td>Noted</td></tr>
<tr><td>F2.3</td><td>Facilities in Class 3 to 9 Buildings, Table F2.3:-</td><td>NA</td></tr>
</table>

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)	NA
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. Details to be provided with Construction Certificate documentation.
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 2.4m to habitable rooms. Ceiling height to be at least 2.1m to toilets, corridors and the like. Details to be provided with Construction Certificate documentation.
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

Section F	Health and Amenity	Comment
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 for new works/altered rooms. If natural lighting proposed must be 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. See also F4.4. Details to be provided with Construction Certificate documentation.
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. Details to be provided with Construction Certificate documentation.
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. Required to new works. Natural ventilation via openable 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 provided with Construction Certificate documentation.
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. Natural ventilation via openable windows, doors or louvres required that are not less than 5% of the floor area of the room. Details to be provided with Construction Certificate documentation.
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 to be provided with Construction Certificate documentation.
F4.9	**Airlocks**: Airlocks, mechanical ventilation and screens can be utilised where WCs open into rooms as indicated in clause F4.8.	CR. Details to be provided with Construction Certificate documentation.
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 of permanent natural ventilation.	NA

Section F	Health and Amenity	Comment
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.	NA
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	Noted
F5.2	**Determination of airborne sound insulation ratings**:- Relates to form of construction required to have airborne sound insulating rating	Noted
F5.3	**Determination of impact sound insulation ratings**:- This clause intends to clarify the means of determining the impact sound insulation ratings, ie Floor required to have impact sound insulation pressure level with spectrum term (Ln,w) to be in accordance with AS/ISO 717.2-2004 or Specification F5.2. Wall required to have impact sound insulation in a Class 2 or 3 building must be discontinuous construction. Discontinuous construction means a wall having a minimum 20mm cavity between separate leaves and for masonry (resilient ties if required) and other than masonry have no mechanical linkage between leaves except at the periphery.	Noted
F5.4	**Sound Insulation of floors**:- A floor in a Class 2 or 3 building must have an Rw + Ctr (airborne) not less than 50 and an Ln,w (impact) not more than 62 if it separates— • SOU's; or • a SOU from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification. A floor in a Class 9c aged care building separating SOUs must have an Rw not less than 45.	FI. Additional information required to confirm the sound insulation for the existing floor is adequate or requires upgrade. Details to be provided with Construction Certificate documentation.

Section F	Health and Amenity	Comment
F5.5	**Sound insulation rating of walls**:- • A wall in a Class 2 or 3 building must — i. have an $R_w + C_{tr}$ (airborne) not less than 50, if it separates SOU's; and ii. have an R_w (airborne) not less than 50, if it separates a SOU from a plant room, lift shaft, stairway, public corridor, public lobby or the like, or parts of a different classification; and iii. comply with F5.3(b) if it separates: A. a bathroom, sanitary compartment, laundry or kitchen in one SOU from a habitable room (other than a kitchen) in an adjoining unit; or B. a SOU from a plant room or lift shaft. • A door may be incorporated in a wall in a Class 2 or 3 building that separates a SOU from a stairway, public corridor, public lobby or the like, provided the door assembly has an Rw not less than 30. • A wall in a Class 9c aged care building must have an R_w not less than 45 if it separates— i. SOUs; or ii. a SOU from a kitchen, bathroom, sanitary compartment (not being an associated ensuite), laundry, plant room or utilities room. • In addition to I, a wall separating a SOU in a Class 9c aged care building from a kitchen or laundry must comply with F5.3(b). • Where a wall required to have sound insulation has a floor above, the wall must continue to— i. the underside of the floor above; or ii. a ceiling that provides the sound insulation required for the wall. • Where a wall required to have sound insulation has a roof above, the wall must continue to— i. the underside of the roof above; or ii. a ceiling that provides the sound insulation required for the wall.	NA
F5.6	**Sound insulating rating of services**:- If a duct, soil, waste or water supply pipe, including a duct or pipe that is located in a wall or floor cavity, serves or passes through more than one SOU, the duct or pipe must be separated from the rooms of any SOU by construction with an $R_w + C_{tr}$ (airborne) not less than— 40 if the adjacent room is a habitable room (other than a kitchen); or 25 if the adjacent room is a kitchen or non- habitable room. If a storm water pipe passes through a SOU it must be separated in accordance with (a)(i) and (ii).	FI. Additional information required to confirm the sound insulation for the existing services are adequate or requires upgrade. Details to be provided with Construction Certificate documentation.
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

ANNEXURE B

Schedule of Essential Fire Safety Measures (Existing and Proposed)

The building is currently provided with the following existing essential fire safety measures and 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.

SCHEDULE

Measure	Design/ Installation Standard	Existing Installation	Proposed Installation, to be removed or to be retained
Exit Signs	AS 2293.1 – 1998	✓	**Not Applicable**
Fire Doors	AS1905.1 - 1997	✓	**Not Applicable**
Fire Seals	BCA Clause C3.15, Specification C3.15, AS1530.4 – 2014 and AS4072.1 2005.	**?**	✓
Fire Shutters	BCA Clauses C3.2, C3.4, Specification C3.4 & AS1905.2-1985	✓	✓
Paths of Travel	EP&A Reg 2000 Clause 186	✓	✓
Portable Fire Extinguishers	BCA Clause E1.6 & AS2444 – 2001	**?**	✓
Smoke Alarms	BCA Clause E2.2a, Clause 3 of Specification E2.2a and AS3786-1993 (existing) or AS3786 (2014 (new)	**?**	✓

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