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BCA ASSESMENT REPORT

1B Bolingbroke Parade, Fairlight NSW 2094

Prepared for: Robbie Treharne / **Project No.:** 180538
Date: 11 April 2020 / **Status:** Revision 3

Accredited Certifiers / Building Regulation Consultants

Office 1300 057 046

Email admin@concisecert.com.au

Address PO Box 2035, Taren Point NSW 2229

ABN 70 612 151 014

CONCISE CERTIFICATION

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REPORT STATUS				
DATE	REVISION	STATUS	AUTHOR	PEER REVIEW
21/02/19	1	Draft Issued for Client Information and Comment	Adam Mainey	Luke Oldfield
09/12/2019	2	Draft Issued for Client Information and Comment	Adam Mainey	Luke Oldfield
11/04/2020	3	Final Report	Adam Mainey	Luke Oldfield

Prepared by:

Adam Mainey - Director
Accredited Certifier/Principal Certifying Authority (NSW)
Building Surveying Grade A2 - Accreditation No. BPB 2435

Reviewed by:

Luke Oldfield – Director
Accredited Certifier/Principal Certifying Authority (NSW)
Building Surveying Grade A1 - Accreditation No. BPB 0311

1. 1. INTRODUCTION

1.1 REPORT BACKGROUND

Concise Certification Pty Ltd has been commissioned by Robbie Treharne to provide professional Building Code Consultancy Services for the proposed development located at 1B Bolingbroke Parade, Fairlight.

Our engagement involved a non-destructive visual audit of all accessible areas together with a detailed desktop assessment of the architectural design documentation against the provisions of the National Construction Code Series (Volume 1) Building Code of Australia 2019 (BCA).

1.2 REPORT PURPOSE

The key objectives of the report are as follows:

- Undertake an assessment of the existing and proposed development against the deemed to satisfy provisions of the National Construction Code Series – Volume 1- Building Code of Australia.
- Identify any BCA compliance issues that require resolution/attention for the proposed development by way of design changes or Fire Engineered Performance Solutions.
- Identify the relevant essential fire safety measures that are applicable to the proposed development.
- Verify that the referenced documentation has been reviewed by an appropriately qualified Building Surveyor and Accredited Certifier and compliance with the BCA is readily achievable.
- Provide a detailed BCA Assessment Report to in support of a Development Application pending lodgement to the Local Authority (Council).

1.3 REPORT DOCUMENTATION RELIED UPON

The following documentation has been reviewed, referenced and/or relied upon in the preparation of this report:

- National Construction Code Series – Volume 1 – Building Code of Australia 2019 (BCA) - Preview
- Inspection of the Site, carried out by Accredited Certifier Mr Adam Mainey on the 18 December 2018.
- Architectural Plans, prepared by Ken Down Architects, including:

Plan No	Document Name	Revision	Date
DA01-02_L	Site Plan	-	29/11/2019
DA01-06_D	Site Plan & Demolition Plan	-	29/11/2019
DA01-10_G	Pipe Layout	-	29/11/2019
DA01-01_K	Ground Floor Plan	-	29/11/2019
DA02-02_G	First Floor Plan	-	29/11/2019
DA02-03_C	Existing Floor Plans	-	29/11/2019
DA02-04_C	Roof Plans	-	29/11/2019
DA02-11_B	Tender Office/Deck Plan	-	29/11/2019
DA04_01_D	Existing Elevations	-	29/11/2019
DA04-02_L	Proposed Elevations	-	29/11/2019
DA04-03_C	Proposed Elevations	-	29/11/2019
DA04-100_K	South View	-	29/11/2019
DA05-01_C	Sections	-	29/11/2019

- Fire Egress Grading Plan.
- Environmental Planning & Assessment Act 1979
- Environmental Planning & Assessment Regulation 2000

1.4 REPORT LIMITATIONS & EXCLUSIONS

The limitations and exclusions of this report are as follows:

- This report is based on a review of the referenced documentation in the report above and a non – destructive visual inspection of accessible areas.
- Access to sub floor, roof spaces, wall cavities and other concealed spaces where not inspected and do not form part of this report. Systems were not tested and building fabric was not removed to determine the method of construction.
- This Report does not address issues in relation to the following:

i. Encroachments on neighbouring land.
ii. The structural adequacy of the building including the Fire Resistance Levels (FRL's) of any existing building elements (unless specifically referred to).
iii. Any previous conditions of Development Consent issued by the relevant Local Council.
iv. The design, maintenance or operation electrical, mechanical, hydraulic or fire protection services.
v. Utility Services Provider Requirements (Water, Gas, Telecommunications and Electricity supply authorities).
vi. Local Government Act and Regulations.
vii. Work Health and Safety Act and Regulations.
viii. Work Cover Authority requirements.
ix. Requirements of other Regulatory Authorities including, but not limited to, Telstra, Sydney Water, Electricity Supply Authority, RTA, Council and the like.
x. Construction Safety Act.
xi. Disability Discrimination Act 1992 (DDA) other than matters covered by the Disability (Access to Premises – Buildings) Standards 2010.

- This assessment does not incorporate the detailed requirements of the BCA Referenced Australian Standards and it's the responsibility of design and installation contractors to demonstrate and achieve compliance for all new works.
- The findings of this BCA Report do not relieve the PCA of their statutory obligations under the EP&A Act & BPB Act and they are to be satisfied that the proposal meets their requirements prior to approval.
- Concise Certification Pty Limited cannot guarantee acceptance of this report by the Local Council, NSW Fire Brigades or other approval authorities.
- It is important to note that without the written permission from Concise Certification Pty Ltd, no part of this report may be reproduced in any form or by any means. This report is based solely on client instructions and therefore should not be relied upon or used by any third party without prior knowledge and instructions from Concise Certification Pty Ltd.
- Unless otherwise specified within this report, Section J of the BCA is excluded from the assessment.

1.3 EXISTING & PROPOSED DEVELOPMENT

The property the subject of this report is 1B Bolingbroke Parade, Fairlight. The legal description for the site is Lot 2699 in Deposited Plan 752038 and Lot 1 in Deposited Plan 858156 (Figure 1). The site is located on the western side of Bolingbroke Parade and is within the Local Government Area (LGA) of Northern Beaches. The subject site is identified as an item of environmental heritage (Landscape) under the provisions of the Manly Local Environmental Plan 2013. The area of the subject site is approximately 980 m^2. The site is occupied by an existing two storey mixed use building consisting of a boatshed to the ground floor level and a residential apartment to the first-floor level. The existing building is of timber frame construction with weatherboard external walls and a colourbond skillion roof (Figure 2).

Figure 1 – Satellite Image (Source: Spatial Information Exchange)

Figure 2 – Subject site as viewed from the rear of the building (Source: Concise Certification Pty Ltd, 2018)

1.4 BUILDING CODE OF AUSTRALIA 2019 (BCA)

At the date of this assessment it was understood that a Part 4a Construction Certificate application for the development would be made with the PCA after the 1st May 2019 and as such the relevant rendition of the BCA is BCA2019.

1.5 REPORT STRUCTURE

The report consists of a Summary of Compliance Departures provided in the table under **Section 5** below, which is for the reader's ease of reference and most urgent attention.

Notwithstanding the summary of issues within **Section 5** must also be read in conjunction with the body of the assessment provided under **Section 6** of the report which further details compliance matters needing consideration in design development and during construction.

It is also the responsibility of all design consultants & contractors to ensure compliance with relevant BCA requirements, Australian Standards and Manufacturers Specifications.

This report does not relieve design consultants from their obligations in designing to achieve compliance with the BCA. Furthermore this report does not relieve the PCA from their statutory obligations required to assess the drawings in detail prior to the issue of a Construction Certificate.

2. BUILDING DESCRIPTIONS

For the purposes of the Building Code of Australia (BCA) the development may be described as follows.

2.1 RISE IN STOREYS (CLAUSE C1.2)

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

2.2 CLASSIFICATION (CLAUSE A3.2)

The building has been classified as follows.

Class	Level	Description
Class 5, 6, 7b & 10a	Ground Floor Level	Kiosk/ Office/ Storage
Class 4	First Floor Level	Residence

2.3 EFFECTIVE HEIGHT (CLAUSE A1.1)

The building has an effective height of 3 metres (RL 5900 – RL 2900)

2.4 TYPE OF CONSTRUCTION (CLAUSE C1.1)

Type C Construction (see discussion under C1.3 of the BCA).

2.5 FLOOR AREA AND VOLUME LIMITATIONS (TABLE C2.2)

The building is subject to maximum floor area and volume limits of:-

- Class 4 -

  The Class 4 portions of the building are not subject to floor area and volume limitations of Clause C2.2 as Table 3 of Specification C1.1 and Clause C3.11 of the BCA regulates the compartmentation and separation provisions applicable to buildings, or building portions of Class 4 classifications.

- Class 5 –

  Maximum Floor Area 3,000m^2
  Maximum Volume 18,000m^3

- Class 6 –

  Maximum Floor Area 2,000m^2
  Maximum Volume 12,000m^3

- Class 7b –

  Maximum Floor Area 2,000m^2

Maximum Volume 12,000m^3

2.6 FIRE COMPARTMENTS

The following fire compartments have been assumed:

1. The building consists of two (2) fire compartments being the Boat Shed and the first floor level residence.

2.7 EXITS

The following points in the building have been considered as the exits:

(a) Exits discharging from each level of the building.

(b) Exit discharging to open space to the front and rear of the building.

2.8 CLIMATE ZONE (CLAUSE A1.1)

The building is located within Climate Zone 5.

3. ESSENTIAL FIRE SAFETY MEASURES

The following **draft** fire safety measures are required to be installed in the building, this table may be required to be updated as the design develops and options for compliance are confirmed.

Item	Proposed Essential Fire Safety Measure	Minimum Standard of Performance
1.	Automatic fire detection and alarm system	BCA 2019 Clause E2.2, Specification E2.2a and AS 3786-2014
2.	Fire seals Protecting Openings in Fire Resisting Components of the Building	BCA 2019 Clause C3.15, AS1530.4-2014
3.	Lightweight Construction	BCA 2019 Clause C1.8
4.	Paths of travel, stairways, passageways or ramps	BCA 2019 Section D
5.	Portable fire extinguishers	BCA 2019 Clause E1.6, AS2444-2001
6.	Emergency Lighting	BCA 2019 Clause E4.2 & E4.4 and AS 2293.1-2018
7.	Exit Signs	BCA 2019 Clause E4.5, E4.6, E4.8 and AS 2293.1-2018
8.	Fire Engineering Alternative Solution Report	*Any required outcomes to address the relevant Performance Requirements of the finalised Fire Engineering report pursuant of the Construction Certificate stage.*

4. FIRE RESISTANCE LEVELS

The following fire resistance levels (FRL's) required for the various structural elements of the building, with a fire source feature being the far boundary of a road adjoining the allotment, a side or rear boundary or an external wall of another building on the allotment except a Class 10 structure.

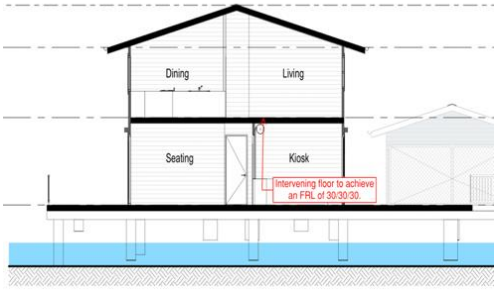
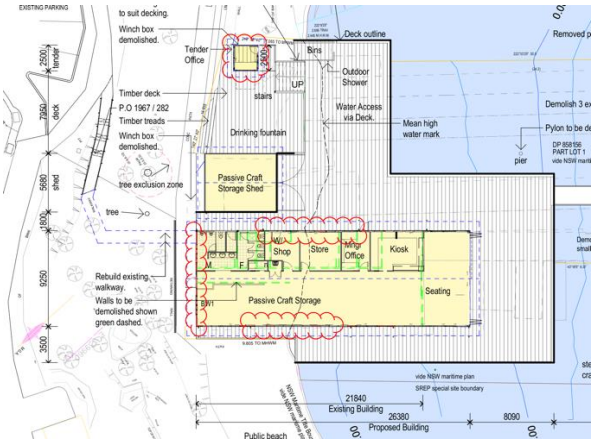
Type C Construction

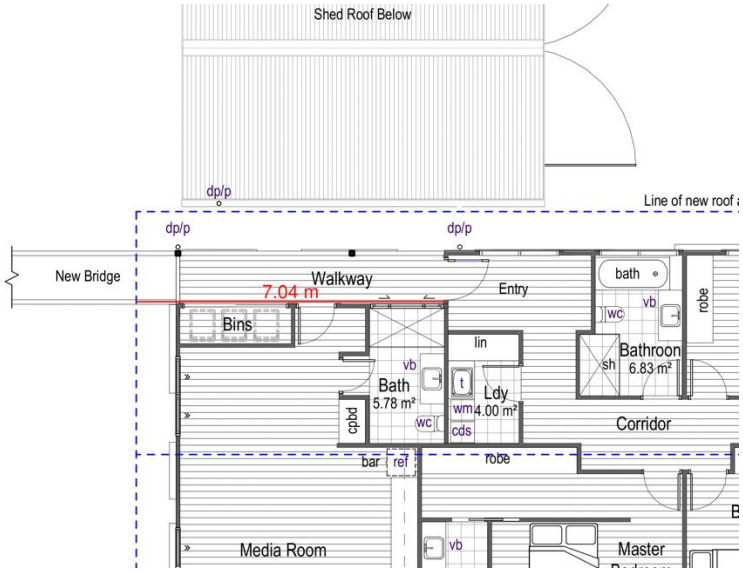
Item	Class 4	Class 5, 6, 7b
External Wall • less than 1.5m • 1.5 to less than 3 m • 3 m or more	 90/90/90 -/-/- -/-/-	 90/90/90 60/60/60 -/-/-
External Columns • Less than 1.5 m • 1.5 to less than 3 m • 3 m or more	 90/-/- -/-/- -/-/-	 90/-/- 60/-/- -/-/-
Common Walls and Fire Walls	90/90/90	90/90/90
Internal Walls • Bounding public corridors, public lobbies and the like- • Between or bounding sole-occupancy units • Bounding a stair if required to be rated	 60/60/60 60/60/60 60/60/60	 -/-/- -/-/- 60/60/60
Roofs	-/-/-	-/-/-

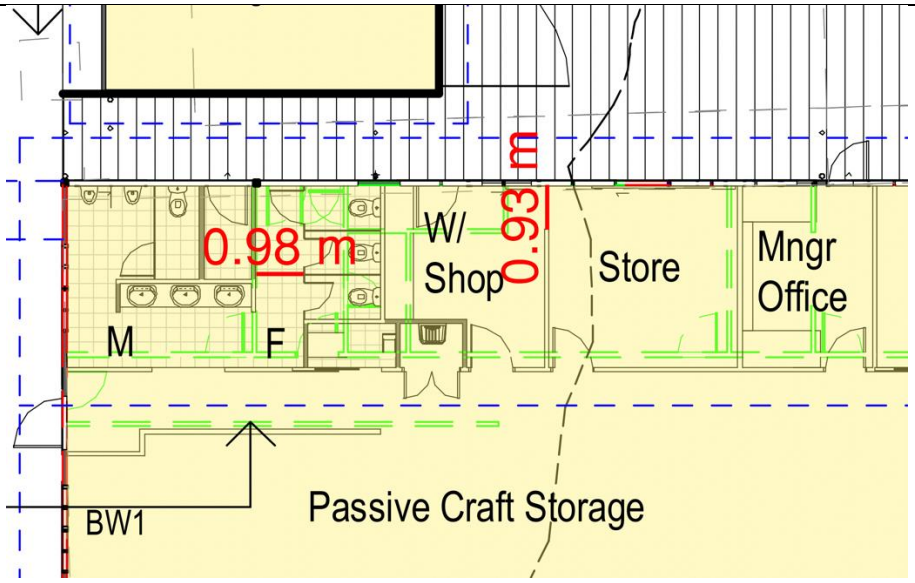
5. SUMMARY OF KEY COMPLIANCE DEPARTURES

The following comprises a summary of the key compliance issues identified under the Clause by Clause BCA Assessment in Section 3 and is to be read in conjunction with the aforementioned Section and the Building Code of Australia Volume 1.

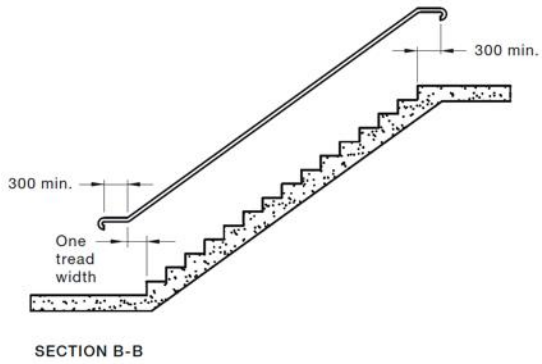
The following matters are to be considered & addressed to the satisfaction of the Consent / Principal Certifying Authority as part of the Building Certificate and Construction Certificate determinations.

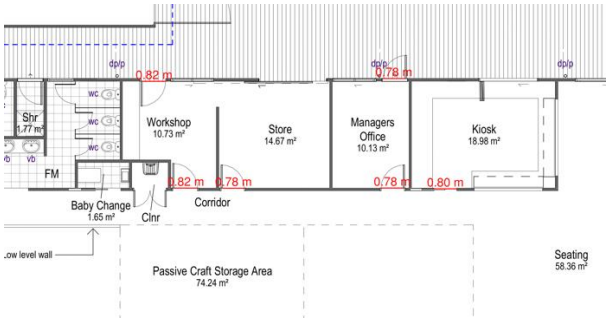
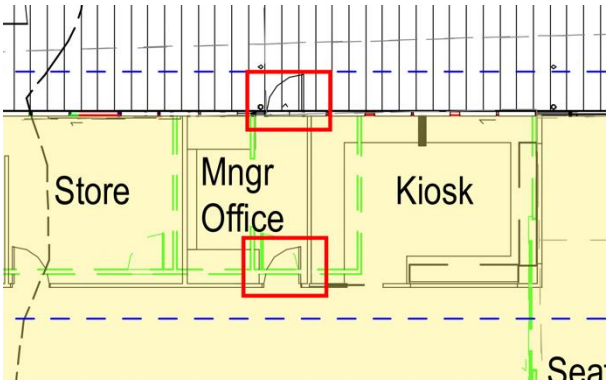
Relevant BCA Clauses	***Description of Compliance Matter Requiring Resolution***
BCA Clause C2.9 – Separation of Classifications in Different Storeys	*If parts of different classifications are situated one above the other in adjoining storeys and one of the adjoining parts is a Class 4 part, the floor must be separated in a building of Type C Construction by a floor achieving an FRL of 30/30/30.* *At the time of the inspection it was noted that no fire separation between the ground floor level and first floor level was provided.* *In this regard, details of the FRL's of the intervening floor are to be detailed on the Construction Certificate Plans and specifications demonstrating a lightweight system achieving a 30/30/30 FRL are to be provided to the with the Construction Certificate documentation.*  
BCA Clause C3.2- Protection of Openings in External Walls	*An opening in an external wall that is required to have an FRL must be protected in accordance with Clause C3.4 if the opening is located within 3 metres of a side or rear allotment boundary or 6 metres from the far boundary of a road if not located in a storey at or near ground level.* *It is recognised that the subject building is located across two allotments (being Lot 2699 in Deposited Plan 752038 and Lot 1 in Deposited Plan 858156), as such the building has a number of openings that are located within 3 metres of an "allotment boundary" (see Figure below).* *In this regard, it is recommended that all openings located within 3 metres of an allotment boundary to the ground floor level (Class 5 and 6 part) and all openings located within 1.5 metres to the first floor level residential apartment (Class 4) be protected in accordance with the requirements of Clause C3.4 of the BCA, or a Performance Solution be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP2 of the BCA.* *<u>Note:</u> There is no exposure between the kiosk and the passive craft storage shed as the building has been classified as a Class 10a building and therefore is not required to be protected in accordance with Clause C3.4 as referenced in Clause C3.2 (a) (iii).* 

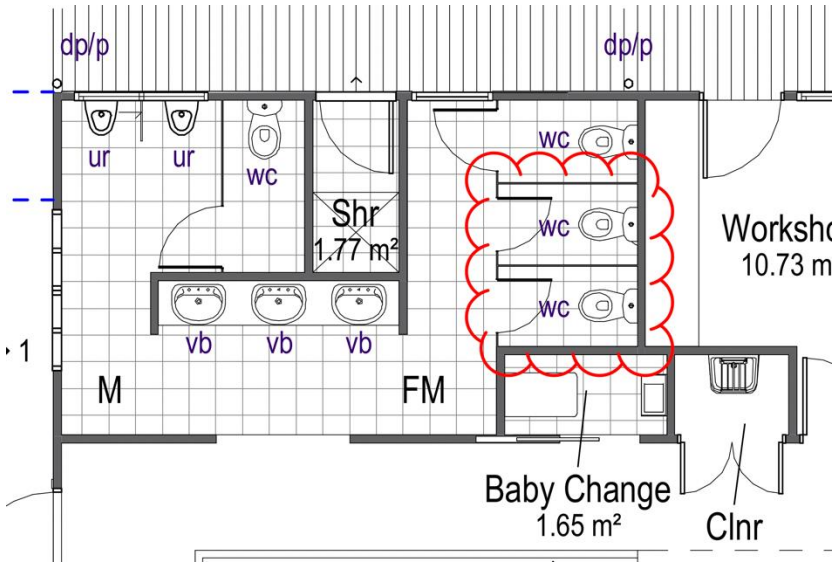
BCA Specification C1.1: Fire - Resistance of Building Elements	*The FRL's of all elements are to be in accordance with the FRL's detailed in the Table contained within Part 4.0 of this report.* *Further to Part 4.0 of this report we provide the following additional comments:* ***External Walls:*** *In accordance with Table 5 of Specification C1.1. All external walls located within 3 metres of an allotment boundary to the ground floor level (Class 5 & 6 part) and all openings located within 1.5 metres to the first floor level residential apartment (Class 4) are to achieve a minimum FRL of 90/90/90.* *It is recognised that the subject building is located across two allotments (being Lot 2699 in Deposited Plan 752038 and Lot 1 in Deposited Plan 858156), as such the building is located within 3 metres of an "allotment boundary" (see Figure below).* *In this regard, details of the FRL's of all external walls located within 1.5 metres and 3 metres of allotment boundaries are to be detailed on the Construction Certificate Plans and specifications demonstrating the system used for external walls to achieve a minimum FRL of 90/90/90 are to be provided with the Construction Certificate documentation.* *Alternatively, a Performance Solution be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP1 & CP2 of the BCA.*
BCA Clause D1.4: Exit Travel Distances	*Class 4 parts of a building –* *The entrance doorway to any Class 4 part of a building must be not more than 6 metres from an exit or a point from which travel in different directions to 2 exits is available.* *The architectural plans indicate a distance of 7.04 metres from the sole occupancy entrance doorway to open space.* *In this regard, a re-design is to occur to indicate the entrance doorway of the Sole Occupancy Unit not to be more than 6 metres from Open Space or a Performance Solution is to be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP2 and EP2.2 of the BCA.* 
BCA Clause D1.6: Dimensions of Exits and Paths to Travel to Exits	*In accordance with this Clause of the BCA, in a required exit or path of travel to an exit the unobstructed width of each exit or path of travel to an exit (except for doorways) must not be less than 1 metre.* *It is recognised that the opening to the workshop and path of travel within the female toilets decrease below one (1) metre.* *In this regard, design changes are required to indicate a minimum path of travel of one (1) metre throughout the subject building or a Performance Solution is to be prepared by a C10 Fire Safety Engineer in accordance with DP6 and EP2.2 of the BCA.*

	
BCA Clause D1.10: Discharge of Exits	*An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it.* *If an exit discharges to open space that is at a different level than the public road to which it is connected the path of travel to the road must be by:* • *A ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed to Satisfy provisions of Part D3; or* • *A stairway complying with the Deemed to Satisfy Provisions of the BCA.* *Having regard to the gradient plan provided it is recognised that the vast majority of the vehicular access to the premises can be used as a ramp providing access to the road/open space. It is recognised that the area labelled as "3" consists of a gradient of 1:7 (11%).* *In this regard, a Performance Solution is to be provided by a C10 Fire Safety Engineer in accordance with Performance Requirement DP1 and DP6 of the BCA.* *Further to the above, it was noted at the time of the inspection, that the existing external stair did not comply with the riser and going dimensions under Table D2.13 of the BCA, was not provided with contrast stair nosings or handrails complying with Clause D2.17 and Clause D3.3 of the BCA.* *Notwithstanding the above, it is recognised that the architectural plans do not indicate any works to this area. Compliance with the BCA is only relevant to "new works" and therefore there is no provision for upgrade of the stair unless the Consent Authority (Council) requires the existing stair to be upgraded under the provisions of Clause 94 of the Environmental Planning and Assessment Regulation 2000.*  
BCA Clause D2.7: Installations in Exits and Paths of Travel	*Services or equipment comprising—* *(i) electricity meters, distribution boards or ducts; or* *(ii) central telecommunications distribution boards or equipment; or* *(iii) electrical motors or other motors serving equipment in the building,* *may be installed in—*

	(iv) a required exit, except for fire-isolated exits specified in (a); or *(v) in any corridor, hallway, lobby or the like leading to a required exit,* *if the services or equipment are enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure.* *At the time of the inspection It was noted that the electrical distribution board to the south-eastern corner of the allotment was not enclosed by non-combustible construction with doorways or openings suitably sealed against smoke spreading from the enclosure.* *In this regard, details are to be provided on the Construction Certificate Plans indicating the Electrical Distribution Board (EDB) being enclosed in non-combustible construction with smoke seals provided to the openings of the distribution boards.* 
BCA Clause D2.16: Barriers to Prevent Falls	*A continuous barrier must be provided along the side of –* *(i) A roof to which general access is provided; and* *(ii) A stairway or ramp; and* *(iii) A floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and* *(iv) Any delineated path of access to a building.* *If the trafficable surface is 1 m or more above the surface beneath.* *A required barrier under this Clause must have a height of not less than 1 metre in height measured above floor and landings and not more than 865mm above the stair nosings. In addition, there must be no gaps in the balustrade that would permit a 125mm sphere from passing through any point.* *It is recognised that the architectural plans do not indicate a barrier to the deck and pontoon (see 3D perspective below) which provides a delineated path of access to the subject building.* *Preliminary discussions have been held with a BCA Consultant as to advise as to whether there is a scope to address the departure from the BCA under a Performance Based Solution. In this regard, there may be scope for a Performance Solution drawing a comparison to that of a Stage or Loading Bay which is exempted from having a barrier under the BCA.* *In this regard, the architectural plans are to be revised to indicate a barrier along each side of the deck and pontoon complying with this Clause or a Performance Solution is to be prepared by a qualified BCA Consultant in accordance with Performance Requirement DP3 of the BCA.*

	Note 1: It is considered that the pontoon, gangway, and deck are deemed a "delineated path of access to a building" and are therefore required to be provided with a barrier under this Clause. *Note 2: Balustrades are to meet the structural requirements under AS 1170 and be certified on completion by a Structural Engineer.* 
BCA Clause D3.2: Access to Buildings	*An accessway must be provided from a building required to be accessible from another accessible building connected by a pedestrian link.* *It is recognised that the architectural plans do not indicate disabled access being provided from the kiosk building to the tender office building.* *In this regard, design changes are required to indicate the provision of a ramp complying with AS 1428.1-2009 providing access between the two buildings or a Performance Solution is to be provided by a qualified Access Consultant in accordance with Performance Requirement DP1 of the BCA.*
BCA Clause D3.3: Parts of Buildings to be Accessible	*Ramps, stairways, walkways, circulation spaces at doorways, door widths and accessible paths comply with AS1428.1-2009.* *The following non-compliances were identified in accordance with the provisions of AS1428.1-2009.* • *Clause 12 – Handrails are to be provided to each side of a stair, consist of 300 mm past the nosing of the last riser and be turned 180 degrees in accordance with Figure 28 of AS 1428.1-2009. In this regard, details are to be provided with the Construction Certificate documentation indicating handrails to the stairs being upgraded in accordance with the requirements of this Clause.*  SECTION B-B • *Clause 13.2 – The minimum clear opening of a doorway on a continuous accessible path of travel shall be a minimum of 850 mm. A number of doorways appear to have*

	a width less than 850 mm. In this regard, details are to be provided on the architectural plans indicating all doors having a minimum width of 850 mm.  • *Clause 13.3.2- The clear circulation space at doorways with swinging doors is based on the clear opening width of the doorway. The clear circulation space shall be not less than the dimensions specified in the tables of Figure 31 for the appropriate clear opening width. A doorway with a front on approach is required to have a latch side clearance of 530 mm and a hinge side clearance of 110 mm. In this regard, a re-design is to occur to indicate a 530 mm latch side clearance to the Managers Office in accordance with this Clause or a Performance Solution is to be provided from a qualified Access Consultant in accordance with DP1 of the BCA.* 
BCA Clause D3.8: Tactile Indicators	*For a building required to be accessible, tactile ground surface indictors must be provided to ware people who are blind or have a vision impairment that they area approaching-* *(i) A stairway, other than a fire isolated stairway; and…* *(ii) a ramp other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp; and…* *The architectural plans do not indicate tactiles to the base and top of the stair accessing the "tender office".* *In this regard, the architectural plans are to be revised to indicate provision of tactile indicators at the base and top of the staircase in accordance with this Clause and AS 1428.4.1-2009.*
BCA Clause F2.4: Accessible Sanitary Facilities	*Accessible sanitary facilities are to be provided in a Class 5, 6, 7, 8 or 9 building at a rate of:* *(c) 1 on every storey containing sanitary compartments; and* *(a) where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments at not less than 50% of those banks.* *It is recognised that the architectural plans do not indicate provision of an accessible sanitary facility. In this regard, the architectural plans are to be revised to indicate a minimum of one (1) accessible unisex sanitary facility complying with AS 1428.1-2009.* *In addition to the above, at each bank of sanitary compartments a ambulant sanitary compartment must be provided complying with AS 1428.1-2009 for use by males and females.*

	It is recognised that the design does not indicate provision of ambulant sanitary facilities. In this regard, the architectural plans are to be revised to indicate a minimum of one (1) sanitary compartment at each bank of toilets. *In this regard, a re-design is to occur indicating provisions of an accessible toilet and ambulant sanitary facility or a Performance Solution is to be prepared by a suitably qualified Access Consultant in accordance with DP1 of the BCA.*
BCA Clause F2.5: Construction of Sanitary Compartments	*Where doorways to sanitary compartment are inward swinging and located within 1.2m of the closet pan the doors are to be removable from outside the compartment.* *In this regard, details are to be provided on the Construction Certificate Plans indicating all swinging doors located within 1.2 metres of closet pans (see Figure below) to be either be outward swinging or be readily removable from the outside of the compartment.* 

It is important to note that the above is not an exhaustive list of the matters requiring attention and the summary is to be read in conjunction with the remainder of the report in Section 3 below.

6. BCA ASSESSMENT

The following is a Clause by Clause assessment of the relevant areas of BCA Compliance that will need to be considered & addressed for the existing / proposed residential development as part of the Building Certificate and Construction Certificate approvals.

The following Clause by Clause assessment will provide an overview of compliance with the National Construction Code Series - Volume 1 (NCC) – Building Code of Australia 2019 (BCA).

All Deemed-to-Satisfy clauses that are applicable to the subject building have been identified below and informative commentary and recommendations has been provided adjacent to each clause demonstrating the works required to be undertaken and the ability to satisfy each respective clause accordingly.

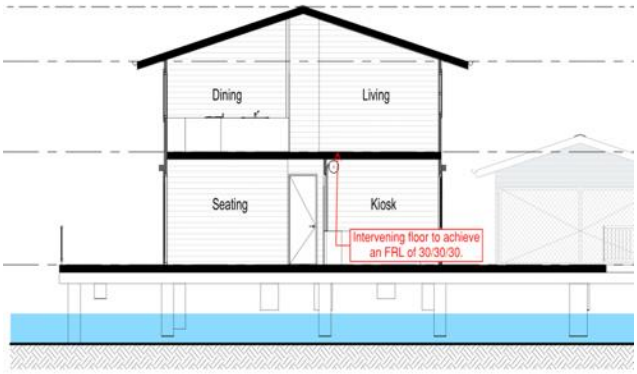
The following table should be read in conjunction with the **Summary of Key Compliance Departures** in Section 2 above and BCA Volume 1.

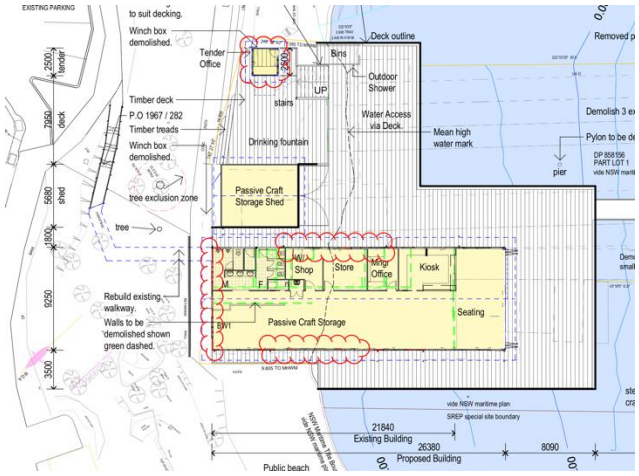
The following key abbreviations have been used in the following table:

N/A	The Deemed-to-Satisfy clause does not apply to the subject dwelling.
Noted	Documentation has been provided by an external or independent source. No inspection of the as built structure was conducted during the works and therefore compliance is taken to be achieved in good faith and in accordance with any Certification provided in relation to the specific works or existing building component.
Complies	The relevant provisions of the Deemed-to-Satisfy clause have generally been satisfied or are assumed to generally comply. The Consent and/or Principal Certifying Authority are to make their own judgment on whether further compliance measures are required.
FI	Further information is necessary to determine the compliance potential of the building design.
CRA	'Compliance Readily Achievable'. It is considered that there was not sufficient information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, subject to noting the requirements of each clause, compliance can be readily achieved.
DNC	Does Not Comply.
PBS	Performance Based Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DTS	Deemed To Satisfy provisions as defined by the Building Code of Australia 2019.

DEEMED-TO-SATISFY CLAUSE ASSESSMENT SUMMARY

Clause	Comment	Status
SECTION B: STRUCTURE		
PART B1 – STRUCTURAL PROVISIONS		
B1.0: Deemed-to-Satisfy Provisions	Noted	-
B1.1: Resistance to Actions	For Information Only – Structural Engineer to certify at CC stage.	CRA
B1.2: Determination of Individual Actions	No details of loads imposed upon the building – Structural Engineer to certify at CC stage.	CRA
B1.4: Determination of Structural Resistance of Materials and Forms of Construction	No details of materials and forms of construction – Structural Engineer, Architect and Manufacturers to certify at CC stage.	CRA
B1.5 Structural Software	Structural software used in computer-aided design of a building or structure within the geometrical limits of (b) of this Clause must comply with the ABCB Protocol for Structural Software. Structural Engineer to certify.	CRA
B1.6 Construction of Buildings in Flood Hazard Areas	A Class 2 or 3 building, Class 9a health care building, Class 9c aged-care building or Class 4 part of a building must comply the ABCB Standard for Construction of Buildings in Flood Hazard Areas.	FI
SECTION C: FIRE RESISTANCE		
PART C1 – FIRE RESISTANCE AND STABILITY		
C1.0: Deemed-to-Satisfy Provisions	Noted	-
C1.1: Type of Construction Required	In accordance with Table C1.1 of the BCA, the type of construction for the building is Type C Construction (refer to Clause C1.3 for buildings of multiple classifications).	Noted
C1.2: Calculation of Rise in Storeys	The development has a rise in storeys of two (2).	Noted
C1.3: Buildings of Multiple Classification	In a building of multiple classifications, the Type of construction required for the building is the most fire-resisting Type resulting from the application of Table C1.1 on the basis that the classification applying to the top storey applies to all storeys. In this regard, the building is to be of Type C Construction (Class 5, 6 or 7 building with a maximum rise in storeys of two).	Noted
C1.4: Mixed Types of Construction	The building is to be of Type C Construction.	N/A
C1.5: Two Storey Class 2, 3 or 9c Buildings	Not applicable to this development.	N/A
C1.6: Class 4 Parts of Buildings	The Class 4 part of a building requires the FRL for building elements as a Class 2 part in the same Type of construction.	CRA
C1.7: Open Spectator Stands and Indoor Sports Stadiums	Not applicable to this development.	N/A
C1.8: Lightweight Construction	Lightweight construction may be used to achieve required fire resistance levels. Should lightweight construction be proposed it is to comply with Specification C1.8.	CRA
C1.10: Fire Hazard Properties	The fire hazard properties of all new building materials and assemblies used in the development must comply with the requirements of Specification C1.10 of the BCA and all new floor materials, floor coverings, wall and ceiling lining materials must comply with Specification C1.10 of the BCA.	CRA
C1.11: Performance of External Walls in Fire	Not applicable to this development.	N/A
C1.12: Non-combustible Materials	For information only.	Noted
C1.13: Fire Protected Timber: Concession	Not applicable to this development.	N/A
PART C2 - COMPARTMENTATION AND SEPARATION		
C2.0: Deemed-to-Satisfy Provisions	Noted	-
C2.1: Application of Part	Noted	-

Clause	Comment	Status
C2.2: General Floor Area and Volume Limitations	The building complies with the relevant floor area and volume limitations as outlined under Table C2.2 of the BCA.	Complies.
C2.3: Large Isolated Buildings	Not applicable to this development.	N/A
C2.4: Requirements for Open Spaces and Vehicular Access	Not applicable to this development.	N/A
C2.5: Class 9a and 9c Buildings	Not applicable.	N/A
C2.6: Vertical Separation of Openings in External Walls	The requirements of this BCA Clause, apply to a building of Type A Construction only. The building is of Type C Construction.	N/A
C2.7: Separation by Fire Walls	Not applicable to this development.	N/A
C2.8: Separation of Classifications in the Same Storey	Not applicable to this development.	N/A
C2.9: Separation of Classifications in Different Storeys	If parts of different classifications are situated one above the other in adjoining storeys and one of the adjoining parts is a Class 4 part, the floor must be separated in a building of Type C Construction by a floor achieving an FRL of 30/30/30. At the time of the inspection it was noted that no fire separation between the ground floor level and first floor level was provided. In this regard, details of the FRL's of the intervening floor are to be detailed on the Construction Certificate Plans and specifications demonstrating a lightweight system achieving a 30/30/30 FRL are to be provided to the with the Construction Certificate documentation.	DNC Refer to Part 5 of this Report.
 		
C2.10: Separation of Lift Shafts	The application does not contain any existing lifts or propose any lifts and therefore the requirements of this Clause are not applicable to the development.	N/A
C2.11: Stairways and Lifts in One Shaft	Not applicable to this development.	N/A
C2.12: Separation of Equipment	There was no evidence of equipment within the building such as lift motor rooms, emergency generators sustaining emergency equipment operating in emergency mode, central smoke control plant, boilers or battery areas with a voltage exceeding 24 volts and a capacity exceeding 10 ampere hours. Hence, there is no requirement to be fire separated from the remainder of the building in accordance with this clause, unless otherwise advised in any room that was inaccessible at the time of the inspection.	N/A
C2.13: Electricity Supply System	There was no evidence of an electrical substation or the like being present within the building.	N/A
C2.14: Public Corridors in Class 2 and 3 Buildings	Not applicable to this development.	N/A
PART C3 – PROTECTION OF OPENINGS		
C3.0: Deemed-to-Satisfy Provisions	Noted	-

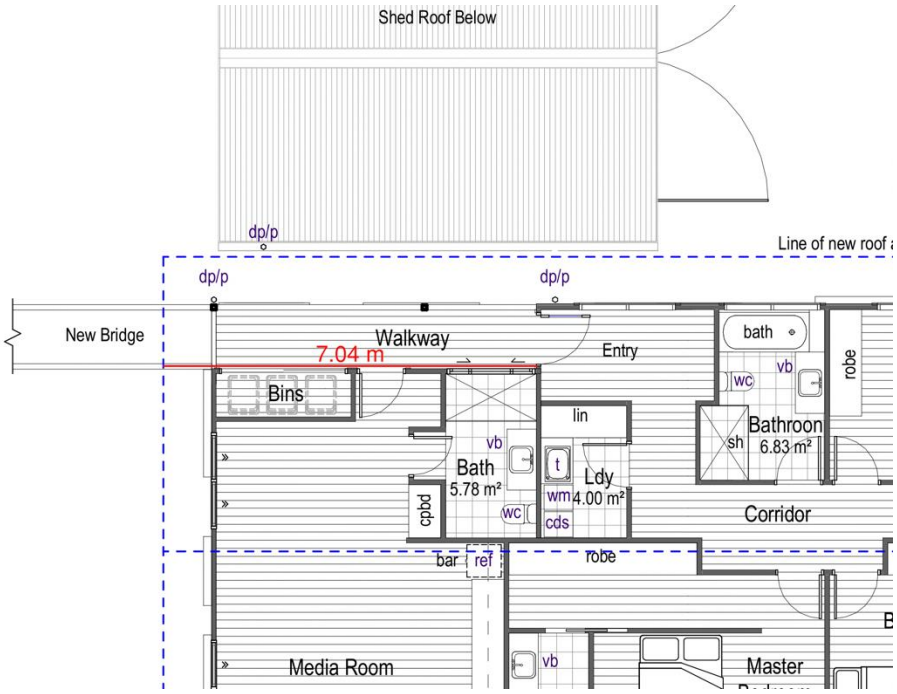
Clause	Comment	Status
C3.1: Application of Part	Noted	-
C3.2: Protection of Openings in External Walls	An opening in an external wall that is required to have an FRL must be protected in accordance with Clause C3.4 if the opening is located within 3 metres of a side or rear allotment boundary or 6 metres from the far boundary of a road if not located in a storey at or near ground level. It is recognised that the subject building is located across two allotments (being Lot 2699 in Deposited Plan 752038 and Lot 1 in Deposited Plan 858156), as such the building has a number of openings that are located within 3 metres of an "allotment boundary" (see Figure below). In this regard, it is recommended that all openings located within 3 metres of an allotment boundary to the ground floor level (Class 5 and 6 part) and all openings located within 1.5 metres to the first floor level residential apartment (Class 4) be protected in accordance with the requirements of Clause C3.4 of the BCA, or a Performance Solution be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP2 of the BCA. Note: There is no exposure between the kiosk and the passive craft storage shed as the building has been classified as a Class 10a building and therefore is not required to be protected in accordance with Clause C3.4 as referenced in Clause C3.2 (a) (iii).	DNC Refer to Part 5 of this Report.
		
C3.3: Separation of External Walls and Associated Openings in Different Fire Compartments	The subject development contains no openings within different fire compartments that are exposed to one another in accordance with this Clause.	N/A
C3.4: Acceptable Methods of Protection	Where applicable to any relevant opening, compliance with this clause is required in conjunction with clause C3.2 of the BCA. Typical compliance methods for openings: • Doorways— (A) internal or external wall-wetting sprinklers as appropriate used with doors that are self-closing or automatic closing; or (B) –/60/30 fire doors that are self-closing or automatic closing. • Windows— (A) internal or external wall-wetting sprinklers as appropriate used with windows that are automatic closing or permanently fixed in the closed position; or	FI

Clause	Comment	Status
	(B) –/60/– fire windows that are automatic closing or permanently fixed in the closed position; or (C) –/60/– automatic closing fire shutters. In this regard, details are to be provided with the Construction Certificate documentation.	
C3.5: Doorways in Fire Walls	Not applicable to this development.	N/A
C3.6: Sliding Fire Doors	Not applicable to this development.	N/A
C3.7: Protection of Doorways in Horizontal Exits	Not applicable to this development.	N/A
C3.8: Openings in Fire-isolated Exits	The development does not include any fire-isolated exits.	N/A
C3.9: Service Penetrations in Fire-isolated Exits	The development does not include any fire-isolated exits.	N/A
C3.10: Openings in Fire-isolated Lift Shafts	The development does not include any fire-isolated exits.	N/A
C3.11: Bounding Construction: Class 2, 3 and 4 Buildings	The doors to the Residential Sole Occupancy Units providing access to a public corridor, a room not within a sole occupancy unit, fire isolated stairway or another sole occupancy unit are to be protected by a self-closing solid core door. In this regard, it is recognised that the sole occupancy unit does not discharge into a public corridor, a room not within a sole occupancy unit, a fire isolated stairway or another sole occupancy unit. 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 another sole occupancy unit or a room not within a sole occupancy unit, external walls are to be constructed of concrete or masonry, doorways are to consist of self-closing tight fitting solid core doors and openings are to be located 1.5 metres above the finished floor level and In this regard, it is recognised that travel via the open balcony does not result in occupants of the sole occupancy unit passing another sole occupancy unit or a room not within a sole occupancy unit. Note: For the purposes of this assessment, it has been considered that the media room forms part of the Class 4 residential apartment. The building owner/ lessee of the building is to confirm if this does not form part of the Class 4 residential apartment as this will result in a re-assessment of the proposed development against the relevant provisions of the BCA.	N/A
C3.12: Openings in Floors and Ceilings for Services	All services shafts are to have a FRL as required by Specification C1.1.	CRA
C3.13: Openings in Shafts	Not applicable to this development.	N/A
C3.15: Openings for Service Installations	Installations through fire rated walls, floors and other elements are to be protected via a method having a FRL relative to the wall they are penetrating as specified in Specification C1.1. In this regard, any new fire seals/ fire collars for any new/existing installations passing through fire rated building elements (such as the new fire rated ceiling separating the ground floor level and first floor level of the building) are to comply with this Clause, BCA Specification C3.15, BCA Specification C1.1 and AS 1530.4-2014.	CRA
C3.16: Construction Joints	Joints are to have the required FRL with respect to integrity and insulation relative to the building element they are joining.	CRA

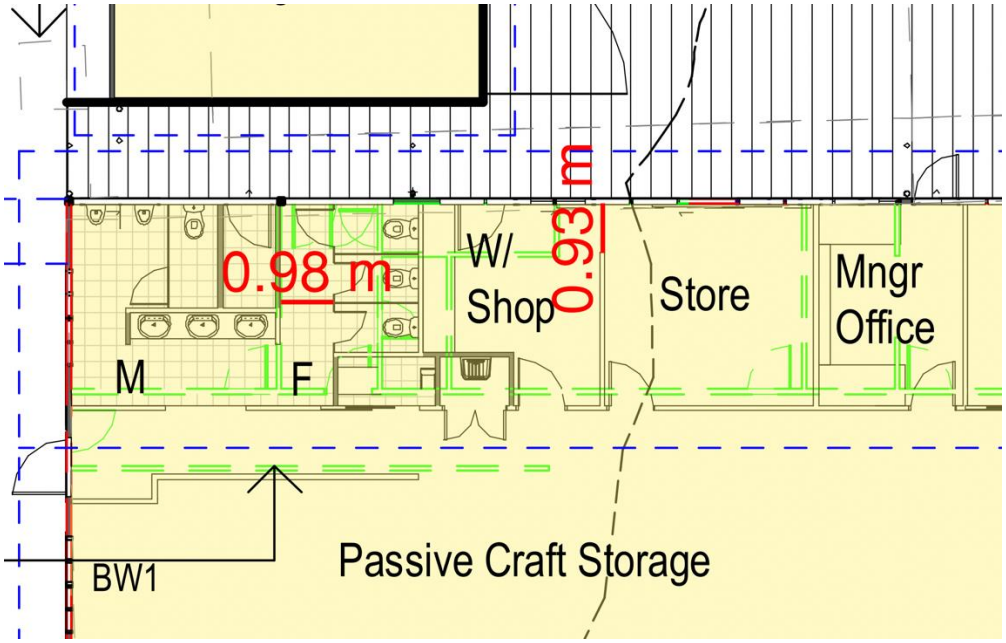
Clause	Comment	Status
C3.17: Columns Protected with Lightweight Construction to Achieve an FRL	It is considered that all columns will be of concrete construction and therefore will have sufficient fire resistance without the need for light weight construction to provide a FRL.	Noted
SPECIFICATION C1.1 – FIRE-RESISTING CONSTRUCTION		
2.0: General Requirements	Noted	-
2.1: Exposure to Fire-Source Features	A part of a building element is exposed to a fire source feature if any of the horizontal straight lines between that part and the fire source feature, or vertical projection of the feature, is not obstructed by another part of the building that – (i) Has an FRL of not less than 30-/-; and (ii) Is neither transparent nor translucent.	N/A
2.2: Fire Protection for a Support of Another Part	Where a part of a building required to have an FRL depends upon direct vertical or lateral support from another part to maintain its FRL, that supporting part must have an FRL not less than that required by other provisions of this Specification; and if located within the same fire compartment as the pat it supports have an FRL in respect of structural adequacy the greater of that required for the supporting part itself and for the part it supports.	Noted
2.3: Lintels	Any new lintels must have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and it spans an opening in masonry which is not more than 150 mm thick and is not more than 3m wide if the masonry is non-loadbearing; or not more than 1.8m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall or is located in a non-loadbearing part of the Class 2 portion of the building.	Noted
2.4: Attachments Not to Impair Fire-resistance	All attachments proposed to the external façade of the building are to be of non-combustible materials that are permitted by this clause.	Noted
2.5: General Concessions	Concessions noted.	Noted
2.6: Mezzanine Floors: Concession	There are no mezzanine floors apparent in the development.	N/A
2.7: Enclosure of Shafts	Fire rated shafts are required to be enclosed, at the top and bottom, with construction having a FRL required for the walls of a non-load-bearing shaft in the same building, unless the shaft extends beyond the roof covering, with the exception of fire isolated stair and lift shafts that are to have lids with a FRL regardless.	CRA
2.8: Carparks in Class 2 and 3 Buildings	Not applicable to this development.	N/A
2.9: Residential Aged Care Building: Concession	Not applicable to this development.	N/A
5.0: Type C Fire-resisting Construction	Noted	-
5.1: Fire-resistance of Building Elements	The FRL's of all elements are to be in accordance with the FRL's detailed in the Table contained within Part 4.0 of this report. Further to Part 4.0 of this report we provide the following additional comments: **External Walls:** In accordance with Table 5 of Specification C1.1. All external walls located within 3 metres of an allotment boundary to the ground floor level (Class 5 & 6 part) and all openings located within 1.5 metres to the first floor level residential apartment (Class 4) are to achieve a minimum FRL of 90/90/90.	DNC Refer to Part 5 of this report

Clause	Comment	Status
	It is recognised that the subject building is located across two allotments (being Lot 2699 in Deposited Plan 752038 and Lot 1 in Deposited Plan 858156), as such the building is located within 3 metres of an "allotment boundary" (see Figure below). In this regard, details of the FRL's of all external walls located within 1.5 metres and 3 metres of allotment boundaries are to be detailed on the Construction Certificate Plans and specifications demonstrating the system used for external walls to achieve a minimum FRL of 90/90/90 are to be provided with the Construction Certificate documentation. Alternatively, a Performance Solution be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP1 & CP2 of the BCA.	
5.2 Carparks	Not applicable to this development.	N/A
SPECIFICATION C1.8 - STRUCTURAL TESTS FOR LIGHTWEIGHT CONSTRUCTION		
1. Scope	Noted	-
2. Application	Any lightweight construction to comply with manufacturer's specifications and this clause.	CRA
3. Tests	Any lightweight construction to comply with manufacturer's specifications and this clause.	CRA
4. Test Specimens	Any lightweight construction to comply with manufacturer's specifications and this clause.	CRA
5. Test Methods	Any lightweight construction to comply with manufacturer's specifications and this clause.	CRA
6. Criteria for Compliance	Any lightweight construction to comply with manufacturer's specifications and this clause.	CRA
SPECIFICATION C1.10 - FIRE HAZARD PROPERTIES		
1. Scope	Noted	-
2. Application	For Information Only	Noted
3. Floor linings and floor coverings	No details of Fire Hazard Indices of floor lining and floor covering materials proposed.	CRA
4. Wall and ceiling linings	No details of Fire Hazard Indices of wall and ceiling lining materials proposed.	CRA
5. Air-handling Ductwork	No details of Fire Hazard Indices of ductwork proposed.	CRA
6. Lift Cars	No details of Fire Hazard Indices of Lift Car linings proposed.	N/A
7. Other materials	No details of Fire Hazard Indices of all materials proposed.	CRA
SPECIFICATION C3.4 – FIRE DOORS, SMOKE DOORS, FIRE WINDOWS AND SHUTTERS		
1. Scope	Noted	-
2. Fire Doors	Fire doors to comply with this clause and AS1905.1.	CRA
3. Smoke Doors	Where required, to comply with this clause.	NA
4. Fire Shutters	Where required, to comply with this clause.	CRA
5. Fire Windows	Where required, to comply with this clause.	CRA
SPECIFICATION C3.15 – PENETRATION OF WALLS, FLOORS AND CEILINGS BY SERVICES		
1. Scope	Noted	-
2. Application	Penetrations to be in accordance with this clause.	CRA
3. Metal Pipe Systems	Penetrations to be in accordance with this clause.	CRA
4. Pipes Penetrating Sanitary Compartments	Penetrations to be in accordance with this clause.	CRA
5. Wires and Cables	Penetrations to be in accordance with this clause.	CRA
6. Electrical Switches and Outlets	Penetrations to be in accordance with this clause.	CRA
7. Fire-stopping	Penetrations to be in accordance with this clause.	CRA
SECTION D: ACCESS AND EGRESS		
PART D1 – PROVISION FOR ESCAPE		

Clause	Comment	Status
D1.0: Deemed-to-Satisfy Provisions	Noted	-
D1.1: Application of Part	Noted	-
D1.2: Number of Exits Required	Every building must have at least one exit from each storey if the building has an effective height of less than 25 metres. In this regard, one exit is provided from each level which satisfies the requirements of this Clause.	Complies.
D1.3: When Fire-Isolated Stairways and Ramps are Required	Every stairway or ramp serving as a required exit must be fire-isolated unless it connects, passes through or passes by not more than two (2) consecutive storeys. In this regard, it is noted that the stair does not serve more than two (2) consecutive storeys.	N/A
D1.4: Exit Travel Distances	Class 4 parts of a building – The entrance doorway to any Class 4 part of a building must be not more than 6 metres from an exit or a point from which travel in different directions to 2 exits is available. The architectural plans indicate a distance of 7.04 metres from the sole occupancy entrance doorway to open space. In this regard, a re-design is to occur to indicate the entrance doorway of the Sole Occupancy Unit not to be more than 6 metres from Open Space or a Performance Solution is to be prepared by a C10 Fire Safety Engineer in accordance with Performance Requirement CP2 and EP2.2 of the BCA. Class 5, 6, 7 8 or 9 buildings- Subject to (d), (e) and (f)- (i) No point on a floor must be more than 20 m from an exit, or a point from which travel in different directions to 2 exits is available, in which case the maximum distance to one of those exits must not exceed 40 m; and (ii) In a Class 5 or 6 building, the distance to a single exit serving a storey at the level of access to a road or open space may be increased to 30 m. In this regard, the design achieves compliance with this Clause.	DNC Refer to Part 5 of this report



D1.5: Distance Between Alternative Exits	Exits that are required as alternative means of egress must be— (a) distributed as uniformly as practicable within or around the storey served and in positions where unobstructed access to at least 2 exits is readily available from all points on the floor including lift lobby areas; and (b) not less than 9 m apart; and (c) not more than - in a Class 2 building — 45 m apart; or in all other cases — 60 m apart; and (d) located so that alternative paths of travel do not converge such that they become less than 6m apart.	Complies.
D1.6: Dimensions of Exits and Paths of Travel to Exits	In accordance with this Clause of the BCA, in a required exit or path of travel to an exit the unobstructed width of each exit or path of travel to an exit (except for doorways) must not be less than 1 metre. It is recognised that the opening to the workshop and path of travel within the female toilets decrease below one (1) metre. In this regard, design changes are required to indicate a minimum path of travel of one (1) metre throughout the subject building or a Performance Solution is to be prepared by a C10 Fire Safety Engineer in accordance with DP6 and EP2.2 of the BCA.	DNC Refer to Part 5 of this report



D1.7: Travel via Fire-Isolated Exits	Not applicable to this development.	N/A
D1.8: External Stairways or Ramps in Lieu of Fire-Isolated Exits	Not applicable to this development.	N/A
D1.9: Travel by Non Fire-Isolated Stairways or Ramps	In a Class 5, 6, 7, 8, or 9 building, the distance from any point on a floor to a point of egress to a road or open space by way of a required non-fire isolated stairway or non-fire-isolated ramp must not exceed 80 metres.	N/A
D1.10: Discharge from Exits	An exit must not be blocked at the point of discharge and where necessary, suitable barriers must be provided to prevent vehicles from blocking the exit, or access to it. If an exit discharges to open space that is at a different level than the public road to which it is connected the path of travel to the road must be by: • A ramp or other incline having a gradient not steeper than 1:8 at any part, or not steeper than 1:14 if required by the Deemed to Satisfy provisions of Part D3; or • A stairway complying with the Deemed to Satisfy Provisions of the BCA. Having regard to the gradient plan provided it is recognised that the vast majority of the vehicular access to the premises can be used as a ramp providing access to the road/open space. It is recognised that the area labelled as "3" consists of a gradient of 1:7 (11%). In this regard, a Performance Solution is to be provided by a C10 Fire Safety Engineer in accordance with Performance Requirement DP1 and DP6 of the BCA. Further to the above, it was noted at the time of the inspection, that the existing external stair did not comply with the riser and going dimensions under Table D2.13 of the BCA, was not provided with contrast stair nosings or handrails complying with Clause D2.17 and Clause D3.3 of the BCA. Notwithstanding the above, it is recognised that the architectural plans do not indicate any works to this area. Compliance with the BCA is only relevant to "new works" and	DNC Refer to Part 5 of this report/ Discretion of the Consent Authority.

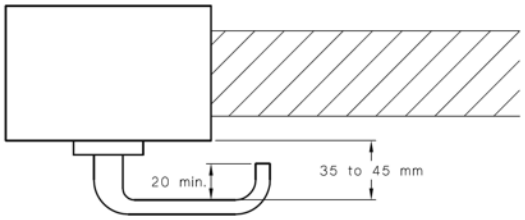
	therefore there is no provision for upgrade of the stair unless the Consent Authority (Council) requires the existing stair to be upgraded under the provisions of Clause 94 of the Environmental Planning and Assessment Regulation 2000.	
 		
D1.11: Horizontal Exits	Not applicable to this development.	N/A
D1.12: Non-Required Stairways, Ramps or Escalators	Not applicable to this development.	N/A
D1.13: Number of Persons Accommodated	The number of persons accommodated in a storey, room or mezzanine must be determined with consideration to the purpose for which it used and the layout of the floor area by: (a) calculating the sum of the numbers obtained by dividing the floor area of each part of the storey by the number of square metres per person listed in Table D1.13 according to the use of that part, excluding spaces set aside for- (i) lifts, stairways, ramps and escalators, corridors, hallways, lobbies and the like, and (ii) service ducts and the like, sanitary compartments or other ancillary uses; or (b) reference to the seating capacity in an assembly building or room; or (c) any other suitable means of assessing its capacity. In this regard, details have not been provided of the number of the maximum population of the subject building. Based on the number of sanitary facilities, it is considered that the maximum population of the subject building is 40 persons. <u>Note:</u> The building owner/ lessee of the building is to confirm the above population numbers. If the population numbers are in excess of the maximum population load as listed above, a re-assessment of the proposed development against the relevant provisions of the BCA will need to be carried out.	Noted.
D1.14: Measurement of Distances	Information only.	Noted
D1.15: Method of Measurement	Information only.	Noted

D1.16: Plant Rooms, Lift Motor Rooms and electricity network substations: Concession	Not applicable to this development.	N/A
D1.17: Access to Lift Pits	Not applicable to this development.	N/A
PART D2 – CONSTRUCTION OF EXITS		
D2.0: Deemed-to-Satisfy Provisions	Noted	-
D2.1: Application of Part	Noted	-
D2.2: Fire-Isolated Stairways and Ramps	Not applicable to this development.	N/A
D2.3: Non-Fire-Isolated Stairways and Ramps	In a building having a rise in storeys of more than 2, required stairs must be constructed in accordance with Clause 2.2 or only of : (a) reinforced or prestressed concrete; or (b) steel in no part less than 6mm thick; or (c) timber that- i. has a finished thickness of not less than 44mm; and ii. has an average density of not less than 800kg/m^3 at a moisture content of 12%; and iii. has not been jointed by means of glue unless it has been laminated and glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue. In this regard, the building does not have a rise in storeys of more than two (2) storeys.	N/A
D2.4: Separation of Rising and Descending Stair Flights	Not applicable to this development.	N/A
D2.5: Open Access Ramps and Balconies	Not applicable to this development.	N/A
D2.6: Smoke Lobbies	Not applicable to this development.	N/A
D2.7: Installations in Exits and Paths of Travel	Services or equipment comprising— (vi) electricity meters, distribution boards or ducts; or (vii) central telecommunications distribution boards or equipment; or (viii) electrical motors or other motors serving equipment in the building, may be installed in— (ix) a required exit, except for fire-isolated exits specified in (a); or (x) in any corridor, hallway, lobby or the like leading to a required exit, if the services or equipment are enclosed by non-combustible construction or a fire-protective covering with doorways or openings suitably sealed against smoke spreading from the enclosure. At the time of the inspection It was noted that the electrical distribution board to the south-eastern corner of the allotment was not enclosed by non-combustible construction with doorways or openings suitably sealed against smoke spreading from the enclosure. In this regard, details are to be provided on the Construction Certificate Plans indicating the Electrical Distribution Board (EDB) being enclosed in non-combustible construction with smoke seals provided to the openings of the distribution boards.	DNC Refer to Part 5 of this report

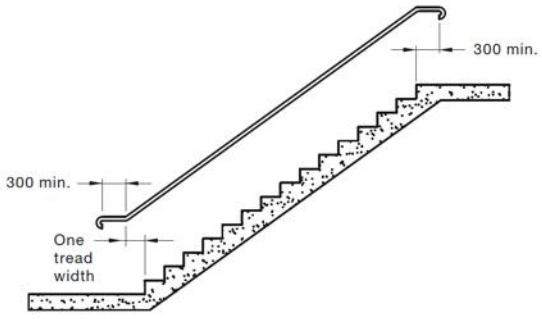
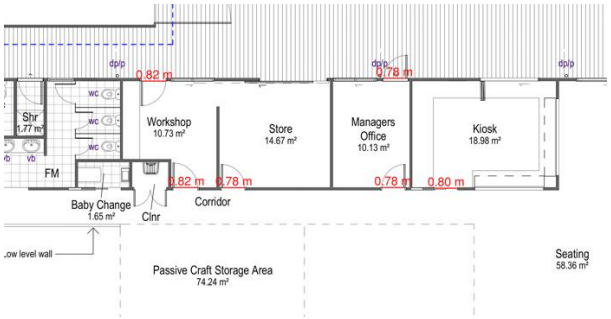
D2.8: Enclosure of Space Under Stairs and Ramps	Non fire-isolated stairways and ramps — The space below a required non fire-isolated must not be enclosed to form a cupboard or other enclosed space unless— (i) the enclosing walls and ceilings have an FRL of not less than 60/60/60; and (ii) any access doorway to the enclosed space is fitted with a self-closing –/60/30 fire door.	N/A
D2.9: Width of Stairways and Ramps	A required stairway or ramp that exceeds 2m in width is counted as having a width of only 2m unless it is divided by a handrail, balustrade or other barrier continuous between landings and each division has a width of not more than 2m. In this regard, it is noted that there are no stairways having a width in excess of 2 metres.	N/A
D2.10: Pedestrian Ramps	Not applicable to this development.	N/A
D2.11: Fire-Isolated Passageways	Not applicable to this development.	N/A
D2.12: Roof as Open Space	Not applicable to this development.	N/A
D2.13: Goings and Risers	In accordance with this Clause of the BCA, a stairway is to not have more than 18 and not less than 2 risers in each flight and comply with the going (G), riser (R) and quantity (2R + G) dimensions in accordance with D2.13 o the BCA. Where a stairway distances to a sloping public walkway or public road the riser (R) may be reduced to account for the slope of the walk or road and the quantity (2R + G) may vary at that location. Stair treads are to have a surface with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS4586 or a nosing strip with a slip resistance classification complying with Table D2.14 when tested in accordance with AS4586. As outlined above, it is recognised that the architectural plans do not indicate any works to this area. Compliance with the BCA is only relevant to "new works" and therefore	Discretion of the Consent Authority.

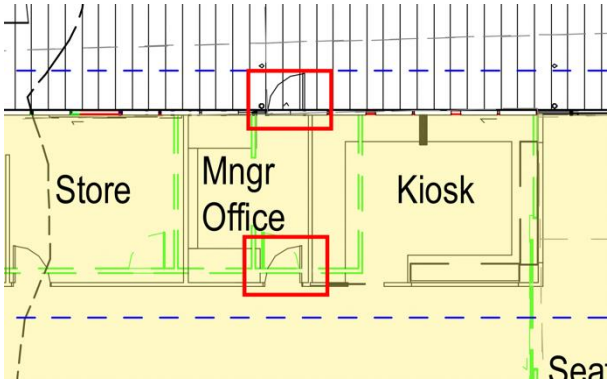
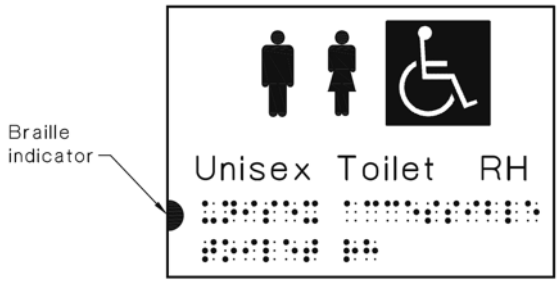
	there is no provision for upgrade of the stair unless the Consent Authority (Council) requires the existing stair to be upgraded under the provisions of Clause 94 of the Environmental Planning and Assessment Regulation 2000.	
D2.14: Landings	Landings to have either a surface with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586 or a strip at the edge of the landing with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586 where the edge leads to a flight below. Landing dimensions to all stairs are considered adequate to meet the intent of this clause without further upgrade.	CRA
D2.15: Thresholds	The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door lead unless- … (c) in a building required to be accessible by Part D3, the doorway- (i) Opens to a road or open space; and (ii) Is provided with a threshold ramp or step ramp in accordance with AS1428.1; or … (d) in other cases- (i) The doorway opens to a road or open space, external stair landing or external balcony; or (ii) The door sill is not more than 190mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.	CRA
D2.16: Barriers to Prevent Falls	A continuous barrier must be provided along the side of – (v) A roof to which general access is provided; and (vi) A stairway or ramp; and (vii) A floor, corridor, hallway, balcony, deck, verandah, mezzanine, access bridge or the like; and (viii) Any delineated path of access to a building. If the trafficable surface is 1 m or more above the surface beneath. A required barrier under this Clause must have a height of not less than 1 metre in height measured above floor and landings and not more than 865mm above the stair nosings. In addition, there must be no gaps in the balustrade that would permit a 125mm sphere from passing through any point. It is recognised that the architectural plans do not indicate a barrier to the deck and pontoon (see 3D perspective below) which provides a delineated path of access to the subject building. Preliminary discussions have been held with a BCA Consultant as to advise as to whether there is a scope to address the departure from the BCA under a Performance Based Solution. In this regard, there may be scope for a Performance Solution drawing a comparison to that of a	**PBS** **Refer to Part 5 of this report**

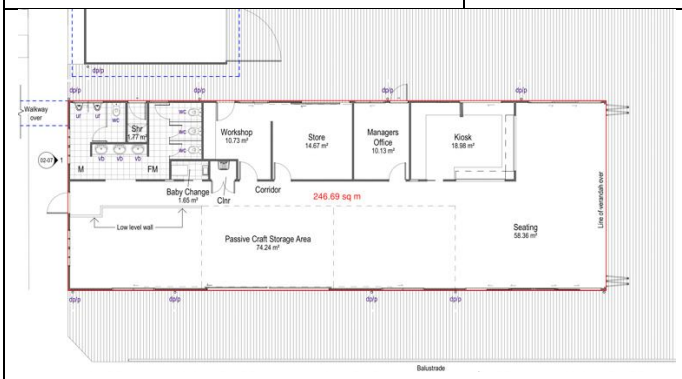
	Stage or Loading Bay which is exempted from having a barrier under the BCA. In this regard, the architectural plans are to be revised to indicate a barrier along each side of the deck and pontoon complying with this Clause or a Performance Solution is to be prepared by a qualified BCA Consultant in accordance with Performance Requirement DP3 of the BCA. <u>Note 1:</u> It is considered that the pontoon, gangway, and deck are deemed a "delineated path of access to a building" and are therefore required to be provided with a barrier under this Clause. <u>Note 2:</u> Balustrades are to meet the structural requirements under AS 1170 and be certified on completion by a Structural Engineer.	
		
D2.17: Handrails	Handrails are required to assist people with a disabled in accordance with the provisions of Clause D3.3 of the BCA and AS 1428.1-2009 (refer to assessment under Clause D3.3 of the BCA).	CRA
D2.18: Fixed Platforms, Walkways Stairways and Ladders	A fixed platform, walkway, stairway, ladder and any going and riser, landing, handrail, balustrade or other barrier attached thereto may comply with AS 1657 in lieu of D2.13, D2.14, D2.16 and D2.17 if it only serves: (a) machinery rooms, boiler houses, lift-machine rooms, plant-rooms, and the like; or (b) non-habitable rooms, such as attics, storerooms and the like that are not used on a frequent or daily basis in the internal parts of a sole-occupancy unit in a Class 2 building or Class 4 part of a building.	N/A
D2.19: Doorways and Doors	Not applicable to this development.	N/A
D2.20: Swinging Doors	A swinging door in a required exit must not encroach at any part of its swing by more than 500mm on the required width of a stairway or passageway, and when fully open, by more than 100mm on the required width of the required exit. In this regard, the design complies. In addition, all exit doors are required to swing in the direction of egress unless it serves a building or part with a floor area not more than 200 m^2, it is the only required exit	Complies.

	from the building or part and it is fitted with a device for holding it in the option position. It is recognised that the there is more than one required exit from the building and therefore all exits are required to swing in the direction of egress. In this regard, the design indicates all doors swinging in the direction of egress.	
D2.21: Operation of Latch	An exit door, or a door in the path of travel to an exit, is required to be readily openable without a key from the side that faces a person seeking egress, by a single downward action or pushing action on a device located between 900mm and 1100mm above floor level.  (a) Isometric view  (b) Plan view	CRA
D2.22: Re-entry from Fire-Isolated Exits	Not applicable to this development.	N/A
D2.23: Signs on Doors	Not applicable to this development.	N/A
D2.24: Protection of Openable Windows	A window opening must be provided with protection, if the floor below the window is 2 metres or more above the surface beneath in a bedroom in a Class 4 part of a building. In this regard, the Construction Certificate Plans are to indicate all windows to bedrooms being fitted with a device or screen that would not permit a 125mm sphere to pass through the window opening or screen and resist an outward horizontal action of 250N against the window restrained by a device or screen protecting the opening. In addition, the restrictor is to have a child resistant release mechanism if the screen or device is able to be removed, unlocked or overridden.	CRA
D2.25: Timber Stairways: Concession	Not applicable.	
NSW D2.101: Doors in Path of Travel in a Place of Public Entertainment	Not applicable.	N/A
PART D3 - ACCESS FOR PEOPLE WITH A DISABILITY		
D3.0: Deemed-to-Satisfy Provisions	Noted	Complies.
D3.1: General Building Access Requirements	Buildings or parts of buildings must be accessible as required below unless exempted under Clause D3.4. Accessible means having the features to enable use for persons with a disability. **Class 5, 6 or 7b**	Noted.

	To and within all areas normally used by the occupants.	
D3.2: Access to Buildings	An access way must be provided into the building from the main points of pedestrian entry at the allotment boundary, and from another accessible building connected by a pedestrian link. In this regard, these have been assessed as follows: <u>Access from the Allotment Boundary:</u> As outlined above, an access way must be provided into the building from the main points of pedestrian entry at the allotment boundary which in this instance it is considered that Bollingbroke Parade is the principal entrance to the site. At the time of the inspection, it was noted that access to the building was not provided from the allotment boundary to the principal point of entry of the building. Having regard to the change in level from Bollingbroke Parade to the subject building, it is recognised that wheelchair access cannot be provided from the subject building to the allotment boundary via an accessible ramp as the maximum combined vertical rise of a ramp permitted under Clause D3.11 of the BCA is 3.6 metres. In this regard, compliance with the BCA is only relevant to "new works" and therefore there is no provision for access from the front allotment boundary to the building unless the Consent Authority (Council) requires access is to be upgraded under the provisions of Clause 94 of the Environmental Planning and Assessment Regulation 2000. Further to the above, the Access to Premises Standard will apply to the subject development (as the works are being carried out by the building owner/ single tenant), in this regard the Premises Standard requires disabled access to be upgraded from the Principal Point of Entrance of a building to the affected part. Having regard to the above, the "Principal Point of Entrance is defined by the door to the northern side of the building" (see below). In this regard, the design can achieve compliance with access to and within all parts of the building. <u>Access to other Accessible Buildings:</u> An accessway must be provided from a building required to be accessible from another accessible building connected by a pedestrian link. It is recognised that the architectural plans do not indicate disabled access being provided from the kiosk building to the tender office building. In this regard, design changes are required to indicate the provision of a ramp complying with AS 1428.1-2009 providing access between the two buildings or a Performance Solution is to be provided by a qualified	DNC Refer to Part 5 of this report

	Access Consultant in accordance with Performance Requirement DP1 of the BCA.	
D3.3: Parts of Buildings to be Accessible	Ramps, stairways, walkways, circulation spaces at doorways, door widths and accessible paths comply with AS1428.1-2009. The following non-compliances were identified in accordance with the provisions of AS1428.1-2009. • Clause 12 – Handrails are to be provided to each side of a stair, consist of 300 mm past the nosing of the last riser and be turned 180 degrees in accordance with Figure 28 of AS 1428.1-2009. In this regard, details are to be provided with the Construction Certificate documentation indicating handrails to the stairs being upgraded in accordance with the requirements of this Clause.  SECTION B-B • Clause 13.2 – The minimum clear opening of a doorway on a continuous accessible path of travel shall be a minimum of 850 mm. A number of doorways appear to have a width less than 850 mm. In this regard, details are to be provided on the architectural plans indicating all doors having a minimum width of 850 mm.  • Clause 13.3.2- The clear circulation space at doorways with swinging doors is based on the clear opening width of the doorway. The clear circulation space shall be not less than the dimensions specified in the tables of Figure 31 for the appropriate clear opening width. A doorway with a front on approach is required to have a latch side clearance of 530 mm and a hinge side clearance of 110 mm. In this regard, a re-design is to occur to indicate a 530 mm latch side	DNC Refer to Part 5 of this report

	clearance to the Managers Office in accordance with this Clause or a Performance Solution is to be provided from a qualified Access Consultant in accordance with DP1 of the BCA.  	
D3.4: Exemptions	The following areas are not required to be accessible: (b) An area where access would be inappropriate because of the particular purpose for which the area is used. (c) An area that would pose a health or safety risk for people with a disability. (d) Any path of travel providing access only to area exempted by (a) or (b).	N/A
D3.5: Accessible Carparking	Accessible carparking spaces must be provided in accordance with Table D3.5 of the BCA and comply with AS/NZS 2890.6. In this regard, the architectural plans do not indicate any new accessible car parking spaces.	N/A
D3.6: Signage	Braille and tactile signage complying with Specification D3.6 and incorporating the international symbols as appropriate must identify each sanitary facility and all accessible entrances where an entrance is not accessible.  	CRA
D3.8: Tactile Indicators	For a building required to be accessible, tactile ground surface indictors must be provided to ware people who are blind or have a vision impairment that they area approaching- (iii) A stairway, other than a fire isolated stairway; and… (iv) a ramp other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp; and…	DNC Refer to Part 5 of this report

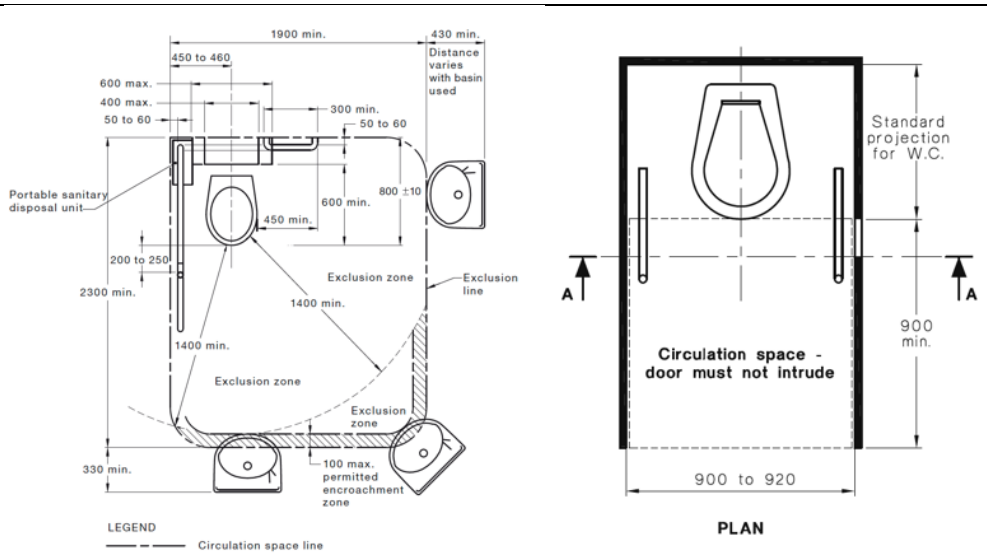
	The architectural plans do not indicate tactiles to the base and top of the stair accessing the "tender office". In this regard, the architectural plans are to be revised to indicate provision of tactile indicators at the base and top of the staircase in accordance with this Clause and AS 1428.4.1-2009.	
D3.11: Ramps	If applicable, on an accessway a series of connected ramps must not have a combined vertical rise of 3.6m and a landing for a step ramp must no overlap a landing for another step ramp or ramp.	N/A
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 or opening, must be clearly marked in accordance with AS 1428.1.	CRA
SECTION E: SERVICES AND EQUIPMENT		
PART E1 – FIRE FIGHTING EQUIPMENT		
E1.0: Deemed-to-Satisfy Provisions	Noted	-
E1.3: Fire Hydrants	A fire hydrant system must be provided to serve a building having a total floor area greater than 500 m^2. In this regard, the building has a total floor area of 494.6 m^2 and therefore the building is not required to be provided with a fire hydrant system.	N/A
		
E1.4: Fire Hose Reels	A fire hose reel system must be provided to serve a fire compartment with a floor area greater than 500m^2. Fire hose reels are not required to serve a Class 4 part of a building. The fire compartment to the ground floor level of the building does not exceed 500 m^2 and therefore fire hose reels are not required to serve subject building.	N/A
E1.5: Sprinklers	Given the building does not have an effective height of more than 25 metres, a sprinkler system is not required. Given the carpark level does accommodate more than 40 vehicles a sprinkler system is not required.	N/A
E1.6: Portable Fire Extinguishers	The building is to be provided with extinguishers in accordance with this clause and AS 2444-2001. Portable fire extinguishers must be— i. provided as listed in Table E1.6; and ii. for a Class 2 or 3 building or Class 4 part of a building, provided— (A) to serve the whole Class 2 or 3 building or Class 4 part of a building where one or more internal fire hydrants are installed; or	CRA

	(B) where internal fire hydrants are not installed, to serve any fire compartment with a floor area greater than 500m², and for the purposes of this clause, a sole-occupancy unit in a Class 2 or 3 building or Class 4 part of a building is considered to be a fire compartment; and iii. Subject to below, selected, located and distributed in accordance with Sections 1, 2, 3 and 4 of AS 2444. In this regard, details are to be provided on the Construction Certificate plans indicating portable fire extinguishers to serve the ground floor level and first floor level of the subject building. Note: The ground floor level of the building may require two different types of Portable Fire Extinguisher being a Class F extinguisher (to cover risks involving cooking oils and fats in kitchens) and a Class A extinguisher (to cover normally occupied fire compartments less than 500 m2 not provided with fire hose reels).	
E1.8: Fire Control Centres	Not applicable to this development.	N/A
E1.9: Fire Precautions During Construction	Information only. Whilst the building is under construction there is to be not less than one fire extinguisher provided at all times to each storey.	Noted
E1.10: Provision for Special Hazards	Not applicable to this development.	N/A
PART E2 – SMOKE HAZARD MANAGEMENT		
E2.0: Deemed-to-Satisfy Provisions	Noted.	-
E2.1: Application of Part	Noted.	-
E2.2: General Requirements (including Tables E2.2a and E2.2b)	Given that the building is less than 25m in Effective Height, the following fire safety measures are required in the building: **Class 4 (Residence):** Given that the building is less than 25m in Effective Height, the following fire safety measures are required in the building: 1) The Class 2 or 3 part of the building must be provided with an automatic smoke detection and alarm system complying with Specification E2.2a. In this regard, details are to be provided on the Construction Certificate plans detailing compliance with this Clause.	CRA
E2.3: Provisions for Special Hazards	Not applicable to this development.	Noted
SPECIFICATION E2.2a – SMOKE DETECTION AND ALARM SYSTEMS		
1. Scope	Noted	-
2. Type of System	Not applicable	Noted
3. Smoke Alarm System	Not applicable	N/A
4. Smoke Detection System	Not applicable	N/A
5. Smoke Detection for Smoke Control Systems	The smoke detection and alarm system is required to comply with this Clause.	CRA
6. Building Occupant Warning System	Not applicable	N/A
7. System Monitoring	Not applicable	N/A
PART E3 – LIFT INSTALLATIONS		
E3.0: Deemed-to-Satisfy Provisions	Noted	-
E3.1: Lift Installations	An electric passenger lift installation and an electrohydraulic passenger lift installation must comply with Specification E3.1.	N/A

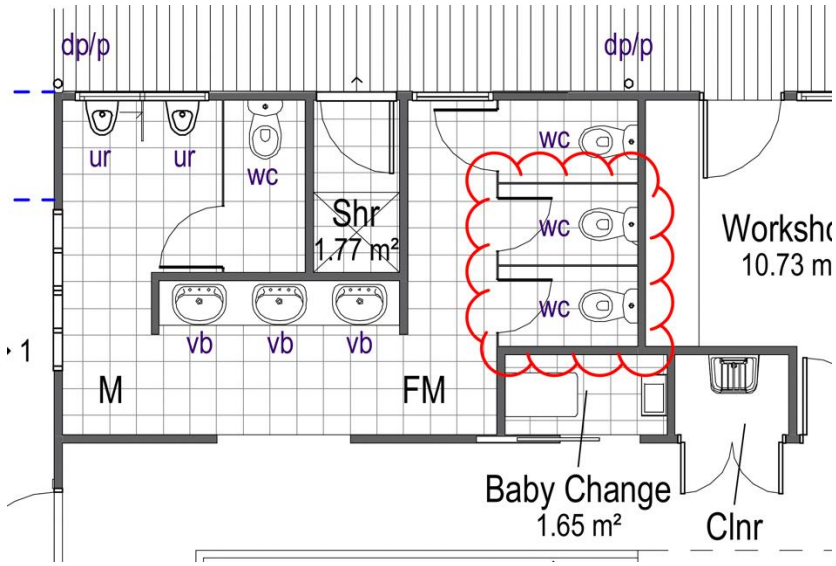
	In this regard, the design does not include any lift installations.	
E3.2: Stretcher Facility in Lifts	Stretcher facilities are not required to be provided in lifts as the building does not have an effective height in excess of 12 metres.	N/A
E3.3: Warning Against Use of Lifts in Fire	Warnings against using the lifts in the event of a fire must be provided in accordance with this clause.	N/A
E3.4: Emergency Lifts	Not applicable	N/A
E3.5: Landings	Access and egress to and from liftwell landings must comply with the Deemed-to-Satisfy Provisions of Section D.	N/A
E3.6: Passenger Lifts	An accessible lift having a travel not in excess of 12 metres must have dimensions of 1100mm wide x 1400mm wide.	N/A
E3.7: Fire Service Controls	This provision only applies where lifts serve any storey above an effective height of 12 metres.	N/A
E3.8: Aged Care Buildings	Not applicable	N/A
E3.9: Fire Service Recall Operation Switch	The fire service control switch is to comply with this clause. Lift services design to confirm compliance at CC stage.	N/A
E3.10: Lift Car Service Drive Control Switch	The lift car fire service drive control switch required by E3.7 must be activated from within the lift car.	N/A
SPECIFICATION E3.1 – LIFT INSTALLATIONS		
1. Scope	Noted	-
2. Lift Cars Exposed	The lift is to comply with this clause, if applicable.	N/A
3. Lift Car Emergency Lighting	The lift is to comply with this clause.	N/A
4. Cooling of Lift Shaft	The lift is to comply with this clause.	N/A
5. Lift Foyer Access	The lift is to comply with this clause.	N/A
6. Emergency Access Doors in a Single Enclosed Lift Shaft	If applicable, the lift is to comply with this clause.	N/A
PART E4 – EMERGENCY LIGHTING, EXIT SIGNS AND WARNING SYSTEMS		
E4.0: Deemed-to-Satisfy Provisions	Noted	-
E4.2: Emergency Lighting Requirements	An emergency lighting system must be installed- …(b) In every storey of a Class 5, 6, 7, 8 or 9 building where the storey has a floor area more than 300 m2- (i) In every passageway, corridor, hallway, or the like, that is part of the path of travel to an exit; and (ii) In any room having a floor area more than 100 m2 that does not open to a corridor or space that has emergency lighting or to a road or open space; and (iii) In any room having a floor area more than 300 m2; and… …(d) in every required non-fire isolated stairway; and… In this regard, details are to be provided on the Construction Certificate plans indicating Emergency Lighting being provided to serve the subject building.	CRA
E4.3: Measurement of Distance	Information Only	CRA
E4.4: Design and Operation of Emergency Lighting	To comply with AS 2293.1-2018.	CRA

E4.5: Exit Signs	An exit sign must be clearly visible to persons approaching the exit, and must be installed on, above or adjacent to each- (a) door providing direct egress from a storey to- (i) An enclosed stairway, passageway or ramp serving as a required exit; and (ii) An external stairway, passageway or ramp serving as a required exit; and (iii) An external access balcony leading to a required exit; and (c) Door from an enclosed stairway, passageway or ramp at every level of discharge to a road or open space; and (d) Door serving as, or forming part of, a required exit in a storey required to be provided with emergency lighting in accordance with E4.2. In this regard, details are to be provided on the Construction Certificate plans indicating Exit Signs being provided to serve the subject building.	CRA
E4.6: Direction Signs	Where an exit is not readily apparent a directional sign is to be installed indicating the direction of egress being primarily within the carpark areas.	CRA
E4.7: Class 2 and 3 Buildings and Class 4 Parts: Exemptions	For Information Only	N/A.
E4.8: Design and Operation of Exit Signs	To comply with AS 2293.1-2018 and/or Specification E4.8.	N/A
E4.9: Sound Systems and Intercom Systems for Emergency Purposes	Not applicable	N/A
SPECIFICATION E4.8 – Photoluminescent Exit Signs		
1. Scope	Noted	-
2. Application	If used, photoluminescent exit signs are to comply with this clause.	N/A
3. Illumination	If used, photoluminescent exit signs are to comply with this clause.	N/A
4. Pictorial Elements	If used, photoluminescent exit signs are to comply with this clause.	N/A
5. Viewing Distance	If used, photoluminescent exit signs are to comply with this clause.	N/A
6. Smoke Control Systems	If used, photoluminescent exit signs are to comply with this clause.	N/A
SECTION F: HEALTH AND AMENITY		
PART F1 – DAMP AND WEATHERPROOFING		
F1.0: Deemed-to-Satisfy Provisions	Noted	-
F1.1: Stormwater Drainage	All new stormwater drainage is to comply with AS 3500.3-2018.	CRA
F1.4: External Above Ground Membranes	Waterproofing membranes for external above ground use to comply with AS 4654 Parts 1 and 2.	CRA
F1.5: Roof Coverings	All new roof coverings to comply with AS 2049-2002.	CRA
F1.6: Sarking	All new sarking to comply with AS 4200.1-1994 and AS 4200.2-1994.	CRA
F1.7: Water Proofing of Wet Areas in Buildings	All new waterproofing to wet areas Is to comply with Table F1.7 and AS 3740-2010.	CRA
F1.9: Damp-proofing	Moisture is to be prevented from reaching the walls above a damp-proof course, and the underside of the suspended floors.	CRA
F1.10: Damp-proofing of Floors on the Ground	A vapour barrier in accordance with AS 2870 must be installed.	CRA

F1.11: Provision of Floor Wastes	In Class 2 or 3 buildings or Class 4 part of a building, a bathroom or laundry is to have a floor waste where the floor is graded to the floor waste to permit the drainage of water.	CRA
F1.12: Sub-floor Ventilation	Subfloor ventilations must be provided in accordance with Table F1.12 of the BCA.	CRA
F1.13: Glazed Assemblies	Glazed assemblies are to comply with AS 2047 and AS 1288.	N/A
PART F2 – SANITARY AND OTHER FACILITIES		
F2.0: Deemed-to-Satisfy Provisions	Noted	-
F2.1: Facilities in Residential Buildings (including Table F2.1)	Sanitary and other facilities for Class 4 parts of building must be provided in accordance with Table F2.1. In this regard, the building contains all required facilities. Notwithstanding the Construction Certificate plans are to indicate provision of a clothes line or hoist, or space for a heat-operated drying cabinet.	CRA
F2.2: Calculation of Number of Occupants and Facilities	For information only.	Noted
F2.3: Facilities in Class 3 to 9 buildings	Sanitary facilities are to be provided in accordance with Table F2.3 of the BCA. In this regard, based on the number of sanitary facilities indicated on the architectural plans the maximum population of the subject building is twenty (20) persons.	Complies.
F2.4: Accessible sanitary facilities	Accessible sanitary facilities are to be provided in a Class 5, 6, 7, 8 or 9 building at a rate of: (c) 1 on every storey containing sanitary compartments; and (e) where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments at not less than 50% of those banks. It is recognised that the architectural plans do not indicate provision of an accessible sanitary facility. In this regard, the architectural plans are to be revised to indicate a minimum of one (1) accessible unisex sanitary facility complying with AS 1428.1-2009. In addition to the above, at each bank of sanitary compartments a ambulant sanitary compartment must be provided complying with AS 1428.1-2009 for use by males and females. It is recognised that the design does not indicate provision of ambulant sanitary facilities. In this regard, the architectural plans are to be revised to indicate a minimum of one (1) sanitary compartment at each bank of toilets. In this regard, a re-design is to occur indicating provisions of an accessible toilet and ambulant sanitary facility or a Performance Solution is to be prepared by a suitably qualified Access Consultant in accordance with DP1 of the BCA.	DNC Refer to Part 5 of this report



F2.5: Construction of Sanitary Compartments	Where doorways to sanitary compartment are inward swinging and located within 1.2m of the closet pan the doors are to be removable from outside the compartment. In this regard, details are to be provided on the Construction Certificate Plans indicating all swinging doors located within 1.2 metres of closet pans (see Figure below) to be either be outward swinging or be readily removable from the outside of the compartment.	DNC Refer to Part 5 of this report



F2.6: Interpretation: Urinals and Washbasins	Noted	
F2.8: Waste Management	Not applicable.	N/A
PART F3 – ROOM SIZES		
F3.0: Deemed-to-Satisfy Provisions	Noted	-
F3.1: Height of Rooms and Other Spaces	In a Class 2 or 3 building or Class 4 part of a building- (i) A kitchen, laundry, or the like- 2.1 m; and (ii) A corridor, passageway or the like- 2.1 m; and	Complies.

	(iii) A habitable room excluding a kitchen- 2.4m; and (iv) In a room or space with a sloping ceiling or projections below the ceiling line within- (A) A habitable room- (aa) in an attic- a height of not less than 2.2 m for not less than two-thirds of the floor area of the room or space; and (bb) in other rooms- a height of not less than 2.4 m for not less than two thirds of the floor area of the room or space; and when calculating the floor area of a room or space, any part that has a ceiling height of less than 1.5 m is not included; and In this regard, the design appears to comply with the requirements of this Clause. In the Class 5, 6, 7 building— (i) except as allowed in (ii) and (f) of this clause -2.4 m; and (ii) a corridor, passageway, or the like — 2.1 m; In any building— (i) a bathroom, shower room, sanitary compartment, airlock, tea preparation room, pantry, store room, garage, car parking area, or the like — 2.1 m; and (ii) a commercial kitchen — 2.4 m; and (iii) above a stairway, ramp, landing or the like — 2 m measured vertically above the nosing line of stairway treads or the floor surface of the ramp, landing or the like. In this regard, the building achieves compliance with this provision.	
PART F4 – LIGHT AND VENTILATION		
F4.0: Deemed-to-Satisfy Provisions	Noted	-
F4.1: Provision of Natural Light	Natural light is required to be provided to habitable areas of the SOUs.	Complies.
F4.2: Methods and Extent of Natural Lighting	Required natural lighting must be provided by windows, excluding roof lights, that have an aggregate light transmitting area measured exclusive of framing members, glazing bars or other obstructions of not less than 10% of the floor area of the room, and are open to the sky or face a court or other space open to the sky or an open verandah.	Complies.
F4.3: Natural Light Borrowed From Adjoining Room	Natural lighting to a habitable room in a Class 2 part may come through a glazed panel or opening from an adjoining room (including an enclosed verandah) if the glazed panel or opening has an area of not less than 10% of the floor area of the room to which it provides light; and the adjoining room has windows, that— a) have an aggregate light transmitting area of not less than 10% of the combined floor areas of both rooms; and b) are open to the sky or other space open to the sky or an open verandah.	Complies.
F4.4: Artificial Lighting	Lighting to all areas is to comply with AS1680.0. In this regard, a suitably qualified electrician is to be commissioned to provide certification that all internal lighting complies with AS1680.0-2009. Documentation is to be provided with the Construction Certificate documentation.	CRA

F4.5: Ventilation of Rooms	A habitable room, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry, and any other room occupied by a person for any purpose must have- (a) natural ventilation complying with F4.6; or (b) a mechanical ventilation or air-conditioning system complying with AS 1668.2 and AS/NZS 3666.1.	Complies.
F4.6: Natural Ventilation	Natural ventilation provided in accordance with clause F4.5(a) of the BCA must consist of permanent openings, windows, doors or other devices which can be opened with an aggregate opening or openable size not less than 5% of the floor area of the room required to be ventilated; and open to a suitably sized court, or space open to the sky; or an open verandah or an adjoining room in accordance with F4.7.	Complies.
F4.7: Ventilation Borrowed From Adjoining Room	Natural ventilation to a room may come through a window, opening, ventilating door or other device from an adjoining room (including an enclosed verandah) if both rooms are within the same sole-occupancy unit and in a Class 2 building part of a building, the window, opening, door or other device has a ventilating area of not less than 5% of the floor area of the room to be ventilated; and the adjoining room has a window, opening, door or other device with a ventilating area of not less than 5% of the combined floor areas of both rooms.	Complies.
F4.8: Restriction on Position of Water Closets and Urinals	Sanitary compartments must not open directly into- (a) a kitchen or pantry; or (b) a public dining room or restaurant; or (c) a dormitory in a Class 3 building; or (d) a room used for public assembly (which is not an early childhood centre, primary school or open spectator stand); or (e) a workplace normally occupied by more than one person.	Complies.
F4.9: Airlocks	Not applicable to this development.	N/A
F4.11: Carparks	Not applicable to this development.	N/A
F4.12: Kitchen Local Exhaust Ventilation	Not applicable to this development.	N/A
PART F5 – SOUND TRANSMISSION AND INSULATION		
F5.0: Deemed-to-Satisfy Provisions	Noted	-
F5.1: Application of Part	The requirements of Clause F5.1 apply to Class 2 and 3 buildings and Class 9c buildings only.	N/A
F5.2: Determination of Airborne Sound Insulation Ratings	Not applicable to this development.	N/A
F5.3: Determination of Impact Sound Insulation Ratings	Not applicable to this development.	N/A
F5.4: Sound Insulation Rating of Floors	Not applicable to this development.	N/A
F5.5: Sound Insulation Rating of Walls	Not applicable to this development.	N/A
F5.6: Sound Insulation Rating of Services	Not applicable to this development.	N/A
F5.7: Sound Isolation of Pumps	For information only.	

SPECIFICATION F5.2 – SOUND INSULATION FOR BUILDING ELEMENTS		
1. Scope	Noted	-
2. Construction Deemed-to-Satisfy	Information only.	Noted
SPECIFICATION F5.5 – IMPACT SOUND – TEST OF EQUIVALENCE		
1. Scope	Noted	-
2. Construction to be Tested	Information only.	Noted
3. Method	Information only.	Noted
SECTION G: ANCILLARY PROVISIONS		
PART G1 - MINOR STRUCTURES AND COMPONENTS		
G1.0: Deemed-to-Satisfy Provisions	Noted	-
G1.1: Swimming Pools	Swimming pools in NSW are to provided with safety fencing must comply with AS1926. Parts 1 and 2, and as required by the Swimming Pools Act 1992 and the Swimming Pools Regulation 2008, and a water recirculation system in a swimming pool must comply with AS1926.3, with the exception of spas which must comply with AS1926.3 except that the specified distance between two outlets connected to a common line may be not less than 600mm.	N/A
G1.2: Refrigerated Chambers, Strong-Rooms and Vaults	Not applicable	N/A
G1.3 Outdoor Play Spaces	Not applicable	N/A
NSW G1.101: Provision for Cleaning of Windows	Buildings greater than 3 storeys high provision for the cleaning of the windows in a safe manner is required.	N/A
PART G3 - ATRIUM CONSTRUCTION		
G3.1: Atriums Affected by this Part	This Part does not apply to an atrium which— a) connects only 2 storeys; or b) connects only 3 storeys if— i. each storey is provided with a sprinkler system complying with Specification E1.5 throughout; and ii. one of those storeys is situated at a level at which there is direct egress to a road or open space.	N/A
PART G5 – CONSTRUCTION IN BUSHFIRE PRONE AREAS		
G5.0: Deemed-to-Satisfy Provisions	Noted	-
G5.1: Application of Part	Noted	-
NSW G5.2: Protection	If applicable, to comply with this clause.	N/A
SECTION J: ENERGY EFFICIENCY		
PART J0 – ENERGY EFFICIENCY		
J0.1: Application of Section J	Noted. The Section J requirements of this Part apply to the Class 5, 6 and 7B portions of the building only. In NSW, BASIX requirements apply to the development as per the definition of "BASIX affected development" under the Environmental Planning and Assessment Regulations 2000.	-
J0.2: Heating & Cooling Loads of SOU's to Class 2 & 4 parts	Not applicable in NSW.	Noted
J0.3: Ceiling Fans	Not applicable in NSW.	Noted
PART J1 – BUILDING FABRIC		
J1.0: Deemed-to-Satisfy Provisions	Noted	-
J1.1: Application of Part	Applies to the parts of the subject building forming the envelope.	CRA
J1.2: Thermal Construction General	Where required insulation is to comply with AS4859.1 and be installed in accordance with this clause.	CRA
J1.3: Roof and Ceiling Construction	The roof or ceiling that is part of the envelope is to achieve an R-value in accordance with this clause which requires R-values of between 3.2 and 4.7 dependant on location and construction, with additional insulation required where there are uninsulated areas of the ceiling or roof.	CRA
J1.4: Roof Lights	Any rooflights required to comply with this clause are to represent less than 5% of the area of the roof and are to achieve a SHGC and u-value for the rooflight system in accordance with this clause.	CRA
J1.5: Walls	The walls that are part of the envelope are to achieve an R-value in accordance with this clause that requires R-values of between 1.4 and 3.3 dependant on location and construction.	CRA

J1.6: Floors	The floors that are part of the envelope are to achieve an R-value in accordance with this clause that requires R-values of between 0 and 2.75 dependant on location and construction.	CRA
PART J2 – GLAZING		
J2.0: Deemed-to-Satisfy Provisions	Noted	-
J2.1: Application of Part	This part applies to all glazing located in the envelope of the building.	CRA
J2.4: Glazing	Glazing to comply with this clause, it is noted that this assessment does not include an assessment with the glazing calculator.	CRA
J2.5: Shading	Shading is to be considered as per this clause.	CRA
PART J3 – BUILDING SEALING		
J3.0: Deemed-to-Satisfy Provisions	Noted	-
J3.1: Application of Part	This part applies to all glazing located in the envelope of the building.	CRA
J3.2: Chimneys and Flues	Chimneys and flues where provided are to comply with this clause in that they are to be provided with a damper or flap that can be closed to seal the chimney or flue.	CRA
J3.3: Roof Lights	Roof lights are to be sealed or capable of being sealed in accordance with this clause.	CRA
J3.4: External Windows and Doors	External windows and doors are to be sealed in accordance with this clause.	CRA
J3.5: Exhaust Fans	The exhaust fans to the sanitary facilities in the this portion of the building, and any other miscellaneous exhaust fans to other conditioned spaces, are to pre-fitted with a sealing device, such as a self-closing damper of the like.	CRA
J3.6: Construction of Roofs, Walls and Floors	The roof, walls, floors and any other openings, such as window or doors, are to be constructed to minimise air leakage by being enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or are sealed by caulking, skirting, architraves, cornices or the like.	CRA
J3.7: Evaporative Coolers	Where provided an evaporative cooler is to be fitted with a self-closing damper in accordance with this clause.	CRA
PART J4 – AIR MOVEMENT		
Deleted	Part J4 deleted in BCA 2019	-
PART J5 – AIR-CONDITION AND VENTILATION SYSTEMS		
J5.0: Deemed-to-Satisfy Provisions	Noted	-
J5.2: Air-conditioning and Ventilation Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.3: Time Switch	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.4: Heating and Chilling Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.5: Miscellaneous Exhaust Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
PART J6 – ARTIFICIAL LIGHTING AND POWER		
J6.0: Deemed-to-Satisfy Provisions	Noted	-
J6.1: Application of Part	Applies to all buildings except a Class 8 electricity network substation.	CRA
J6.2: Artificial Lighting	Artificial lighting to comply with this clause, design certification to be provided by the electrical designer.	CRA
J6.3: Interior Artificial Lighting and Power Control	Lighting controls are to be in accordance with this clause, which sets requirements on location of switching and sets limits on floor areas controlled by a switch.	CRA
J6.4: Interior Decorative and Display Lighting	Lighting falling under this clause is to be separately switched from other lighting, be under a manual switch and controlled with a time switch.	CRA
J6.5: Artificial Lighting Around the Perimeter of a Building	Perimeter lighting is to be controlled by a daylight sensor or time switch and where it exceeds 100W have an average light source density of 60 Lumens/W or be controlled by a motion sensor complying with Specification J6.	CRA
J6.6: Boiling Water and Chilled Water Storage Units	The power supply to a fixed boiling water or chilled water storage unit must be controlled by a time switch in accordance with Specification J6.	CRA
PART J7 – HEATED WATER SUPPLY		
J7.0: Deemed-to-Satisfy Provisions	Noted	-
J7.2: Heated Water Supply	The hot water supply systems must be designed and installed in accordance with Section 8 of AS3500.4.	CRA
J7.3: Swimming Pool Heating and Pumping	Not applicable	N/A

J7.4: Spa Pool Heating and Pumping	Not applicable	N/A
PART J8 – ACCESS FOR MAINTENANCE AND FACILITIES FOR MONITORING		
J8.0: Deemed-to-Satisfy Provisions	Noted	-
J8.1: Application of Part	Applies to all buildings except within a SOU of a Class 2 or 4 building and a Class 8 electricity network substation.	CRA
NSW J8.2: Access for Maintenance	Access for maintenance must be provided to all services and their components including time switches, motion detectors, thermostats, outside air dampers, reflectors, lenses and diffusers of light fittings, heat transfer equipment and adjustable or motorised shading devices.	CRA
J8.3: Facilities for Energy Monitoring	A building with a floor area of more than 500m^2 must have an energy monitoring facility to record the consumption of gas and electricity. A building with a floor area of more than 2500m^2 must have the facility to individually record the consumption of air conditioning plant, artificial lighting, appliance power, central hot water supply, lifts, escalators and other ancillary plant.	CRA
SECTION J: ENERGY EFFICIENCY (Class 2)		
NSW PART J(A)1 – BUILDING FABRIC		
NSW J(A)1.0: Deemed-to-Satisfy Provisions		Noted
NSW J(A)1.1: Application of Part	Applies to the new Class 3 buildings where thermal insulation is required as a DA Condition.	Noted
NSW J(A)1.2: Compliance with BCA Provisions	To be included in the specification to AS/NZS4859.1 and Clause J1.2, for the new portion of the building. The installation is to be certified by an appropriate consultant.	CRA
NSW PART J(A)2 – BUILDING SEALING		
NSW J(A)2.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)2.1: Application of Part	Noted	-
NSW J(A)2.2: Compliance with BCA Provisions	Compliance is to be achieved with Clauses J3.2, J3.4, J3.5 and J3.6.	Noted
J3.3: Roof Lights	No rooflights.	Noted
J3.4: External Windows and Doors	The windows and doors must be sealed, or the windows may comply with AS2047, doors are still to be sealed.	CRA
J3.5: Exhaust Fans	The exhaust fans to the sanitary facilities in the this portion of the building, and any other miscellaneous exhaust fans to other conditioned spaces, are to pre-fitted with a sealing device, such as a self-closing damper of the like.	CRA
J3.6: Construction of Roofs, Walls and Floors	The roof, walls, floors and any other openings, such as window or doors, are to be constructed to minimise air leakage by being enclosed by internal lining systems that are close fitting at ceiling, wall and floor junctions or are sealed by caulking, skirting, architraves, cornices or the like.	CRA
NSW PART J(A)3 – AIR-CONDITIONING AND VENTILATING SYSTEMS		
NSW J(A)3.0: DTS Provisions	Noted	-
NSW J(A)3.1: Application of Part	Noted	-
NSW J(A)3.2: Compliance with BCA Provisions	Compliance is to be achieved with Clauses J5.2, J5.3, J5.4 and J5.5.	Noted
J5.2: Air-conditioning and Ventilation Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.3: Time Switch	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.4: Heating and Chilling Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
J5.5: Miscellaneous Exhaust Systems	Compliance required, design certification to be provided by Mechanical Engineer.	CRA
NSW PART J(A)4 – HOT WATER SUPPLY		
NSW J(A)4.0: Deemed-to-Satisfy Provisions	Noted	-
NSW J(A)4.1: Application of Part	Noted	-
NSW J(A)4.2: Compliance with BCA Provisions	The hot water supply system must comply with Clause J7.2.	Noted
J7.2: Hot Water Supply	The hot water supply systems must be designed and installed in accordance with Section 8 of AS3500.4.	CRA
NSW PART J(A)5 – ACCESS FOR MAINTENANCE		
NSW J(A)5.0: DTS Provisions	Noted	-
NSW J(A)5.1: Application of Part	Noted	-
NSW J(A)5.2: Access for Maintenance	Deleted by BCA 2019	-
NSW J(A)5.3: Compliance with BCA provisions	Class 2 Buildings must comply with national BCA provisions J8.2 and J8.3.	Noted

7. BCA COMPLIANCE SPECIFICATIONS

The following BCA matters are to be addressed by specific BCA Design Certifications to be issued by the relevant architectural, services and engineering consultants at the **Construction Certificate Stage.** This schedule should be forwarded to all consultants to obtain verification that these items have and will be included in the design documentation / specifications:

Architectural Design Certification:

1. The FRL's of the structural elements for the proposed works have been designed in accordance with table 3 for a building of Type C Construction of Specification C1.1 of BCA 2019.

2. Materials, floor and wall linings/coverings, surface finishes and air-handling ductwork used in the works will comply with the fire hazard properties in accordance with Clause C1.10, and Specification C1.10 of BCA 2019.

3. The parts of different classifications situated one above another in adjoining storeys will to be separated in accordance with Clause C2.9 and Specification C1.1 of BCA 2019.

4. Openings in the external walls that are required to have an FRL will be in located in accordance with Clause C3.2 of BCA 2019 or protected in accordance with Clause C3.4 of BCA 2019.

5. Services penetrating elements required to possess a FRL including the floor slabs, walls, shafts, etc. will be protected in accordance with Clause C3.9, C3.12, C3.13 and C3.15 and Specification C3.15 of BCA 2019.

6. Columns protected by lightweight construction will achieve an FRL not less than the FRL for the element it is penetrating, in accordance with Clause 3.17 of BCA 2019.

7. A lintel must have the FRL required for the part of the building in which it is situated, unless it does not contribute to the support of a fire door, fire window or fire shutter, and it spans an opening in masonry which is not more than 150 mm thick and is not more than 3m wide if the masonry is non- loadbearing; or not more than 1.8m wide if the masonry is loadbearing and part of a solid wall or one of the leaves of a cavity wall, or it spans an opening in a non-loadbearing wall of the Class 2 or 3 building, in accordance with Clause 2.3 of BCA 2019.

8. Fire doors will comply with AS1905.1 and Specification C3.4 of BCA 2019.

9. The number of exits provided to the building will be in accordance with Clause D1.2 of BCA 2019.

10. Travel distances to exits will be in accordance with Clause D1.4 of BCA 2019.

11. The dimensions of exits and paths of travel to exits will be provided in accordance with Clause D1.6 of BCA 2019.

12. The non-fire-isolated exits will be in accordance with Clause D1.9 of BCA 2019.

13. The discharge points of exits will be in accordance with Clause D1.10 of BCA 2019.

14. The construction of EDB's will be in accordance with Clause D2.7 of BCA 2019 with the enclosure bounded by a non-combustible or fire protective covering and smoke seals provided around the perimeter of the doors at each level.

15. New pedestrian ramps will comply with AS1428.1-2009, Clause D2.10 and Part D3 of BCA 2019. The floor surface of a ramp must have a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586.

16. Stair geometry to the new stairways will be in accordance with Clause D2.13 of BCA 2019. Stair treads are to have a surface with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586 or a nosing strip with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586.

17. Landings and door thresholds throughout the development will be provided in accordance with Clause D2.14 and D2.15 of BCA 2019. Landings to have either a surface with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586 or a strip at the edge of the landing with a slip-resistance classification complying with Table D2.14 when tested in accordance with AS 4586 where the edge leads to a flight below.

18. The handrails and balustrades to all stairs and throughout the building will be in accordance with Clause D2.16, and D2.17 of BCA 2019.

19. The doorways and doors will be in accordance with Clause D2.19, D2.19 and D2.20 of BCA 2019.

20. The door latching mechanisms to the proposed required exit doors will be in accordance with Clause D2. 21 of BCA 2019.

21. The openable portion of a window in a bedroom of a Class 2, 3, 4, must be protected with a restricting device or secure screen that does not allow a 125mm sphere to pass through the opening or screen and resist an outward horizontal action of 250N in accordance with Clause D2.24. In addition to window protection and for openable windows 4 meters or more above the ground below, a barrier with a height not less than 865mm above the floor to an openable window must be installed.

22. The new works will be accessible in accordance with Clause D3.1 and Table D3.1, D3.2, D3.3 of BCA 2019, and with AS1428.1-2009, with particular note to door circulation spaces, accessway widths, turning spaces and floor coverings, in accordance with Part D3 of BCA 2019.

23. Braille and tactile signage will be in accordance with Clause D3.6, and specification D3.6 of BCA 2019.

24. Tactile ground surface indicators will be provided in accordance with Clause D3.8 of BCA 2019 and AS 1428.4.1-2009.

25. External above ground waterproofing membranes must comply with AS 4654 Parts 1 and 2.

26. The new roof covering will be in accordance with Clause F1.5 of BCA 2019.

27. Any sarking proposed will be installed in accordance with Clause F1.6 of BCA 2019.

28. Waterproofing of all wet areas to the building will be carried out in accordance with Clause F1.7 of BCA 2019 and AS3740.

29. Damp proofing of the proposed structure will be carried out in accordance with Clause F1.9 and F1.10 of BCA 2019.

30. Floor wastes will be installed to bathrooms and laundries above sole occupancy units or public space in accordance with clause F1.11 of BCA 2019.

31. Sanitary facilities will be provided in the building in accordance with Clause F2.1, Table F2.1, Clause F2.3 and Table F2.3 of BCA 2019, as applicable).

32. The construction of the sanitary facilities will be in accordance with Clause F2.5 of BCA2019.

33. Ceiling heights to the new areas will be in accordance with Clause F3.1 of BCA 2019.

34. Natural light will be provided in accordance with Clause F4.1, F4.2, and F4.3 of BCA 2019.

35. Natural ventilation will be provided in accordance with Clause F4.5, F4.6 and F4.7 of BCA 2019.

36. The sanitary compartments will be either provided with mechanical exhaust ventilation or an airlock in accordance with Clause F4.9 of BCA 2019.

37. The construction of the residential portions of the development will be undertaken in accordance with the relevant BASIX commitments that form part of the Development Consent approval.

38. Essential fire or other safety measures must be maintained and certified on an on-going basis, in accordance with the provisions of the Environmental Planning and Assessment Regulation, 2000.

39. Glazing will be in accordance with Part J2 of BCA 2019.

Electrical Services Design Certification:

40. A smoke detection and alarm system will be installed throughout the building in accordance with Table E2.2a, and Specification E2.2a of BCA 2019.

41. Emergency lighting will be installed throughout the building in accordance with BCA Clause E4.2 of the BCA and AS 2293.1-2005.

42. Artificial lighting will be installed throughout the development in accordance Clause F4.4 of BCA 2019 and AS/NZS 1680.0.

43. Lighting power and controls will be installed in accordance with Part J6 of BCA 2019.

Hydraulic Services Design Certification:

44. Storm water drainage will be provided in accordance with Clause F1.1 of BCA 2019 and AS3500.3

45. Portable fire extinguishers will be installed in accordance with Clause E1.6 of BCA 2019 and AS2444-2001.

46. The heated water supply systems will be designed and installed to NCC Volume 3 – Plumbing code and Clause J7.2 of BCA 2019.

Mechanical Services Design Certification:

47. The building will be mechanically ventilated in accordance with Clause F4.5 of BCA 2019 and AS1668.2-2012.

48. The air-conditioning and ventilations systems will be designed and installed in accordance with Part J5 of BCA 2019.

Structural Engineers Design Certification:

49. The material and forms of construction for the proposed works will be in accordance with Clause B1.2, B1.4 and B1.6 of BCA 2019 as follows:

    - Dead and Live Loads – AS1170.1
    - Wind Loads – AS1170.2
    - Masonry – AS3700
    - Concrete Construction – AS3600
    - Steel Construction – AS4100
    - Aluminium Construction – AS/NZS1664.1 or 2

50. The FRL's of the structural elements for the proposed works have been designed in accordance with table 3 for a building of Type C Construction of Specification C1.1 of BCA2019.

51. Lightweight construction used to achieve required fire resistance levels will comply with Specification C1.8 of BCA2019.

52. The construction joints to the structure will be in accordance with Clause C3.16 of BCA 2019 to maintain the FRL integrity of the element concerned.