



Access Assessment Report

26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards (Area 22 & 23)



Project: 26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards (Area 22 & 23)

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BCA Logic Acquired by Jensen Hughes

BCA Logic was acquired by Jensen Hughes, the largest specialist fire and safety engineering firm in the world, in September 2021.

A respected global leader in safety, security and risk-based engineering and consulting, Jensen Hughes employs more than 1,400 people across 100 countries. This acquisition marks the company's entry into the Australian market and speaks to BCA Logic's experience and expertise in building legislation and regulations, fire, accessibility, and energy consulting.

Partnering with Jensen Hughes allows BCA Logic to further advance our capabilities in all aspects of fire safety engineering and support our clients with an expanded range of complementary services. Both companies share a commitment to technical excellence and exceptional client service.

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EXECUTIVE SUMMARY

This document provides an assessment of the architectural design drawings for the proposed residential development at 26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards (Area 22 & 23), against the Deemed-to-Satisfy provisions of the provisions relating to Access for Persons with a Disability.

Part 2 'Matters for Further Consideration' of this report outlines the identified compliance issues that require further information or consideration and/or assessment as Performance Solutions.

Item	Description	BCA Provision
Compliance Matters to be Addressed		
1.	General Building Access Requirements	Clause D3.1
2.	Access to Buildings	Clause D3.2
3.	Parts of Buildings to be Accessible	Clause D3.3
4.	Livable Housing – Toilets	ADG SEPP 65
5.	Adaptable Units	AS4299

The Annexures of this Report provide detailed assessments of the proposal against all compliance requirements.

1 BASIS OF ASSESSMENT

1.1. Location

The building development, the subject of this report, is located at 26-50 Park Rd, 27-47 Berry Rd, 48-54 River Rd, St Leonards (Area 22 & 23). The proposal contains the construction of four (4) residential towers located above a common carpark with external podium uses.

Vehicular access to the site is provided via Park Road, whereas pedestrian access is maintained from Park Road, River Road, Berry Road and the new Proposed Road.

The building site is divided into two areas, being Area 22 and Area 23 with Buildings A, B, C and D being proposed. Throughout this report the building will be identified as below.

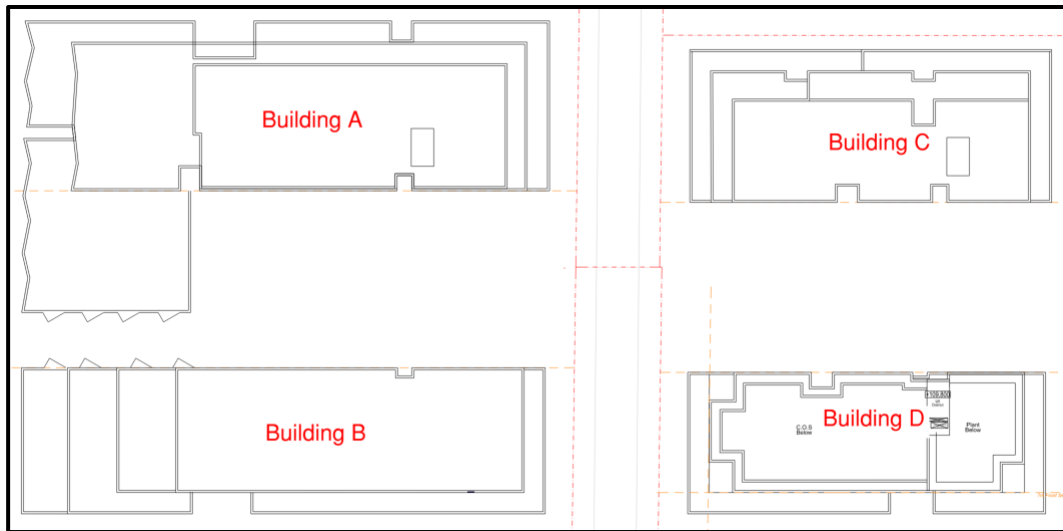


Photo sourced from the architectural plans prepared by DKO

1.2. Purpose

The purpose of this report is to assess the proposed building against the documents and their relevant Deemed to Satisfy requirements. The report is intended to clearly outline those areas where compliance is not achieved and provide recommendations to achieve compliance:

- > Disability Discrimination Act 1992 (DDA);
- > Disability Access to Premises Standards 2010 (Premises Standards);
- > Design Quality of Residential Apartment Development 2015 (SEPP65)
- > Building Code of Australia 2019 (BCA2019) Volume 1 Amendment 1 – Part D3 and Clauses E3.6 and F2.4;
- > Lane Cove Council's Development Control Plan 2009 (DCP);
- > Adaptable Housing Code AS4299:1995 (AS4299) – As required by DCP; and
- > Applicable Australian Standards AS1428.1:2009, AS1428.4.1:2009 and AS2890.6:2009.

1.3. Limitations

This report is limited to an assessment of the access and amenity provisions for people with a disability against the documents as outlined in 1.2 above. It is not an assessment of the proposal against all provisions of the BCA2019 and if this is required, a separate report will be necessary.

This report does not include nor imply any detailed assessment for design, compliance or upgrading for:

- > The structural adequacy or design of the building;
- > The inherent derived fire-resistance ratings of any existing or proposed structural elements of the building (unless specifically referred to); and
- > The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire protection services.

This report does not include, or imply compliance with:

- > The Disability Discrimination Act (it cannot be guaranteed that a complaint under the DDA will not be made, however should the building comply with BCA2019 and the Premises Standard then those responsible for the building cannot be subject to a successful complaint);
- > BCA2019 Sections B, C, E, F, G, H, I, J, Parts D1 and D2;
- > Demolition Standards not referred to by the BCA2019;
- > Work Health and Safety Act;
- > Construction Safety Act;
- > Requirements of other Regulatory Authorities including, but not limited to, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like;
- > Conditions of Development Consent issued by the Local Consent Authority; and
- > This report does not assess the safety of the particular aspects of the building but merely the minimum standards called up by the documents outlined in Part 1.2 of this report.

1.4. Federal Disability Discrimination Act (DDA)

Disability is broadly defined and includes disabilities which are physical, intellectual, psychiatric, neurological, cognitive or sensory (a hearing or vision impairment), learning difficulties, physical disfigurement and the presence in the body of disease causing organisms.

All organisations have a responsibility, under the DDA, to provide equitable, dignified access to goods and services and to premises used by the public. Premises are broadly defined and would include all areas included within the subject development.

The DDA applies nationally and is complaint based. While the Disability (Access to Premises – Buildings) Standards 2010 and the BC2019 are recognised as a design standard to satisfy certain aspects of the DDA, compliance with the BCA2019 and the referenced standards does not guarantee that a complaint will not be lodged.

1.5. Disability Access to Premises Standards (Premises Standards)

The aim of the Premises Standards is to provide the building and design industry with detailed information regarding the required access provisions associated with the design and construction of new buildings and upgrade to existing buildings.

The Premises Standards intend to provide certainty for the building industry in relation to meeting the requirements for access in new and upgraded buildings. They only apply to elements addressed within the Standards. All other elements related to premises will still be subject to the existing provisions of the DDA.

The Premises Standards generally align with the BCA2019 and reference a range of Australian Standards relating to access and other associated matters.

They do not apply to existing buildings that are not undergoing upgrade, however they introduce the concept of the “Affected Part”. This means that new works need to be connected to the building’s Principal

Pedestrian Entrance by an accessible path of travel. This can mean that upgrade to the building may be necessary even where none is proposed.

1.6. Design Documentation

This report has been based on the Design plans and Specifications listed in Annexure A of this Report.

1.7. Definitions

Accessible

Having features to enable use by people with a disability.

Accessway

A continuous accessible path of travel (as defined in AS 1428.1) to, into or within a building.

Luminance Contrast

The light reflected from one surface or component, compared to the light reflected from another surface or component.

Ramp

An inclined surface on a continuous accessible path of travel between two landings with a gradient steeper than 1 in 20 but not steeper than 1 in 14.

Tactile Indicators

Tactile Ground Surface Indicators (TGSIs)

Truncated cones and/or bars installed on the ground or floor surface, designed to provide pedestrians who are blind or vision-impaired with warning or directional orientation information

Adaptable

A housing unit which is designed and constructed to meet the performance requirements of Clause 2.2 of AS 4299-1995.

Visitable

A housing unit which has at least one wheelchair accessible entry with an accessible path of travel to the living area and to a toilet that is either accessible or visitable.

2 KEY COMPLIANCE CONSIDERATION

2.1. General

The following is a summary of all the individual elements that relate directly to the ability of a person with a disability to access all the portions of the building required to be accessible.

Accessibility has been assessed against the documents outlined in Part 1.2 of this Report. The Annexures to this report provides a detailed assessments of the proposal against ALL relevant Deemed-to-Satisfy Provisions and prescriptive requirements

Note: It is important that the Annexures are read in conjunction with the items below, as some matters may not have had sufficient information provided to allow a detailed assessment to be undertaken.

The abbreviations outlined below have been used in the following tables.

N/A	Not Applicable. The Deemed-to-Satisfy clause is not applicable to the proposed design.
Complies	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
CRA – Refer Annexure F	'COMPLIANCE READILY ACHIEVABLE'. It is considered that there is not enough information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, with further design development, compliance can readily be achievable. This item is to be read in conjunction with the BCA Specification included within Annexure F of this report.
FI	Further Information is necessary to determine the compliance potential of the building design.
PS	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DNC	Does Not Comply.
Noted	BCA Clause simply provides a statement not requiring specific design comment or confirmation.

2.2. Classification

Under the provisions of Parts A6 of BCA2019 and Part A4 of the Access Code, the building has been classified as follows:

Table 1. Building Classification

Class	Level	Description
Class 2	Basement 4 - Level 12	Residential Sole Occupancy Units and Common Areas
Class 7a	Basement 4 - Basement 1	Car Parking
Class 7b	Basement 4 - Level 1	Storage Cages, Waste Rooms and Store Rooms
Class 9b	Basement 2	Gym

2.3. Dimensions and Tolerances

The Premises Standards and BCA contains the minimum standards for building construction and safety, and therefore generally stipulates minimum dimensions which must be met. BCA Logic's assessment of the plans and specifications has been undertaken to ensure the minimal dimensions have been met.

The designer and builder should ensure that the minimum dimensions are met onsite and consideration needs to be given to construction tolerances for wall set outs, applied finishes and skirtings to corridors and bathrooms for example, tiling bed thicknesses and the like which can adversely impact on critical matters such as access for people with disabilities, stair and corridor widths and balustrade heights.

2.4. Council's Development Control Plan Requirements (DCP)

Lane Cove DCP 2009 provides Council's planning controls on the provision of Accessibility / Adaptability / Universal Design under Part F of that Plan.

The Controls for Accessibility under Clause 3.5 Part F of North Sydney DCP 2010 are as follows:

Table 2. Controls for Accessibility

Item No	Control	Comment	Compliance
3.5.1	Adaptable housing to comply with AS4299, including the essential features in Appendix A for Class C housing (essential items only).	The proposal has been assessed in accordance with Class C. The assessment of the adaptable units is included within Annexure E.	CRA – Refer Annexure F
3.5.2	Adaptable housing to be equitably distributed throughout all types and sizes of dwelling units.	Both two bedroom and single bedrooms have been proposed as adaptable units throughout the development	CRA – Refer Annexure F
3.5.3	Adaptable housing to be provided at the rate of 20% of all dwellings in a Class 2 development.	The plans have detailed 63 proposed Class C Units which is 20% of the total 314 and would comply with this Clause. The assessment of the adaptable units is included within Annexure E.	CRA – Refer Annexure F
3.5.4	Dual occupancies (attached) are to be visitable (where topography permits – 1:10 fall or less steep).	NA	NA
3.5.5	Dwellings are to be visitable at the rate of 80% in developments requiring adaptable housing.	80% of the units have been detailed as being visitable and capable of complying with visitable bathrooms detailed	CRA – Refer Annexure F
3.8.1	Access is to be provided in accordance with BCA Clause D3.1 and in accordance with Table 1 below.	Access is provided to the common areas throughout the building in accordance with the requirements of the BCA	CRA – Refer Annexure F
3.8.2	Access is to comply with the relevant Provisions of the BCA, and associated referenced Australian Standards. Demonstration is required in the form of an access report	This report is an access report which has assessed the compliance as required	Noted

Item No	Control	Comment	Compliance
	prepared by a suitably qualified access consultant as part of the DA documentation.		
3.8.3	Buildings of a public nature are to have features in accordance with AS1428.2, when applicable, as follows: a. Tables, counters and worktops for use by public. b. Seating in pedestrian areas. c. Drinking fountains and water coolers. d. Gateways and checkouts.	This is noted as being a private residential building	NA

2.5. Residential Sole Occupancy Units

The following table summarises the required accessible features for the proposed Residential SOUs. This is based upon the Premises Standards Access Code, SEPP65 Apartment Design Guide, Council DCP and BCA2019;

Table 3. Residential Sole Occupancy Units

Unit Type	SOU's
Adaptable SOU's	SOU's A.B2.07; A.B1.08, A.B2.04; A.B1.05, A.B1.16; A.B1.15; A.00.12; A.00.11; A.01.09; A.01.08; A.02.09; A.03.09; A.03.08; A.04.04, A.01.02; A.02.02; A.03.02, B.B1.04; B.00.03; B.B1.06; B.00.05, B.01.02; B.02.00; B.03.02, B.B2.05, B.01.05; B.02.05; B.03.05, B.B1.12; B.B1.10; B.00.11, B.B1.11; B.00.10; B.00.09; B.01.09; B.01.08; B.02.09; B.02.08; B.03.09; B.03.08, B.04.02; B.05.02; B.06.02, C.01.05; C.02.06; C.03.06; C.04.06; C.05.06; C.06.04; D.02.02; D.03.02; D.04.02; D.05.02, D.01.01, D.01.01, D.02.08; D.03.08; D.04.08, D.05.08, D.02.07; D.02.06, C.00.08, C.02.02 are identified and designed as Adaptable SOU's.
Visitable SOU's	A total of 253 units are detailed as being visitable units and represent up to 80% of the development.
Livable SOU's	The adaptable units detailed above are considered to be the livable units.

Note: Adaptable SOU's can provide the dual purpose of adaptability and Liveable Housing design features.

2.6. Areas Required to be Accessible

The following areas of the building are required to be accessible:

Table 4. Areas Required to be Accessible

Area / Room	Description
Residential Sole Occupancy Units and Common Areas	Common areas of the residential levels
Car Parking	To and within any level containing accessible car parking spaces
Storage Cages, Waste Rooms and Store Rooms	To and within all areas normally used by the occupants

Area / Room	Description
Gym	To and within all areas normally used by the occupants at the school / childcare centre

Note: The limitations and exemptions of Clauses D3.2, D3.3 and D3.4 of the BCA2019 and Access Code been considered where applicable in the process of developing the above table.

2.7. Liveable Housing Design Guidelines Requirements (LHDG)

The SEPP 65 Apartment Design Code requires that residential developments achieve a benchmark that at least 20% of the total apartments incorporate the Livable Housing Guideline's silver level universal design features. The Annexure D of this Report includes an assessment against the relevant requirements of the LHDG.

Note: These Guidelines do not take precedence over the requirements of the Disability (Access to Premises – Buildings) Standards 2010 or the Building Code of Australia.

2.8. Adaptable Housing Code Assessment Summary (AS4299)

63 adaptable units are required in the development. The adaptable units are required to comply with AS4299 – Class C (essential features incorporated). Pre and post adaption plans will be needed to demonstrate how the design would permit later alterations to suit individual requirements at minimal extra cost.

The Annexure E of this Report includes an assessment against the relevant requirements of the AS4299.

2.9. Design Items Requiring Attention

2.9.1. General Building Access Requirements – Clause D3.1

It is noted that there are several doorways throughout the building where sufficient clear opening and latchside circulation would not be provided. The following doorways will need to be updated to ensure that at least one of the door leafs will maintain the required 850mm clear opening and latchside clearance is provided:

- > Each of the doorways to the lift lobbies in the carpark storeys
- > The double doors adjacent to the communal room on Basement 2 of Building B
- > The two doorways located at the top and base of the ramp connecting to the carpark on Basement 2 of Building B. Furthermore, consideration will need to be given to handrail extensions and their implication.
- > Each of the doorways leading to the gym
- > The double doors from the podium to Building B on Basement 2.
- > The double doors from the Building B on ground Floor to the new road.

Additionally, access to each of the lifts are generally provided; however, in Building A on Basement 3 the platform lift is not provided with a 1500mm x 1500mm landing to allow for a 90 degree turn to reach the lift. The location of this lift will need to be shifted to allow for compliance.

2.9.2. Access to Buildings – Clause D3.2

Throughout the Ground Floor there are several access points into the building which are made accessible from the footpath via walkways and suitably level accessways. However, it is noted that all the buildings are provided with open space which is provided with building entries and is connected to the new proposed

road. However, these areas are only accessible via stair ways and would not allow for compliant access in accordance with this Clause.

These locations are located more than 50m from the accessible entrance on the other street frontages and therefore compliance would not be achieved. It would be required that lifts are provided where the external stairs are provided to allow for access to each of the podium areas.

2.9.3. Parts of Buildings to be Accessible – Clause D3.3

- > Walkways and ramps must comply with Clause 10 of AS 1428.1-2009. Basement 2 of Building B has a series of 1:14 ramps that are not provided with the required 1200mm landing and will need to be updated.
- > It is noted that the Building B stair on Basement 3 will need to have a handrail extension provided to the base of the flight and will likely impact on the use of the adjacent doorway, therefore it would be proposed that this stair is shifted to avoid a conflict.

Additionally, the internal stair on Ground to Level 1 (Building D) will need handrail extensions that will impact on the corridor and would not comply with AS1428.1-2009. This flight will need to be modified to be setback to ensure the handrails don't continue into the corridor.

- > Passing spaces (1800x2000mm) complying with AS1428.1 at 20m max. intervals where direct line of sight is not available. It is found that Building A on Basement 1 and 2 have a corridor more than 20m in length with no passing space provided. This will need to be addressed to ensure that the internals to a passing space are less than 20m in these two instances to comply.

2.9.4. Livable Housing – Toilets

Each of the toilets are generally noted as being located in the corner of the room and provided with a suitable clearance in front of the pan.

However, it is considered that several locations are provided with a swinging door withing proximity and other with a sliding door within the adjacent wall which may impact on reinforcement. Unit B.01.05; B.02.05; B.03.05 contain the swinging door and Unit B.B1.06; B.00.05 have the sliding door.

These locations will need to be updated to ensure that there is a WC within the unit that is provided adjacent to a wall that may be provided with reinforcement while maintaining the required clear space in front of the pan.

2.9.5. Adaptable Units

- > Internal doors are required to have a minimum clear opening of 820mm and provisioning to be increased to 850mm at post-adaptation stage.

Currently, several doors are not detailed as maintaining the required 850mm clear openings to the bedrooms as accessible rooms and will need to be updated at the CC stage.

- > Circulation spaces at doorways within the unit comply with AS1428.1-2009. Except there are several locations where the bedroom door will not maintain the required latchside circulation to the bed (B.B2.05) and the bathroom door to D.01.01. The plans will need to be updated to ensure the required 510mm/530mm latchside clearance is maintained.
- > Provision of 800mm wide work surfaces are required to be located adjacent to the kitchen sink, refrigerator, oven and cooktop. Details will need to be provided at CC stage to ensure compliance.
- > The layout of the bathroom will need to be modified to each unit to ensure that the seat and the shower head are swapped and located on the appropriate wall as per AS1428.1-2009. Currently they are located in the wrong position and will impact on the WC circulation space.

- > Circulation spaces have been provided in front of the appliances in accordance with this Clause. However, it is noted that B.B1.04; B.00.03 are not provided with the required clearance and will need to be updated at the CC documentation.

ANNEXURE A – DESIGN DOCUMENTATION

This report has been based on the following design documentation.

Table 5. Architectural Plans

Architectural Plans Prepared by DKO			
Drawing Number	Revision	Date Title	Title
DA200	P07	11/11/2022	Basement 4
DA201	P08	11/11/2022	Basement 3
DA202	P07	11/11/2022	Basement 2
DA203	P07	11/11/2022	Basement 1
DA204	P05	11/11/2022	Ground Floor Plan
DA205	P04	11/11/2022	Level 1 Floor Plan
DA206	P05	11/11/2022	Level 2 Floor Plan
DA207	P05	11/11/2022	Level 3 Floor Plan
DA208	P05	11/11/2022	Level 4 Floor Plan
DA209	P05	11/11/2022	Level 5 Floor Plan
DA210	P05	11/11/2022	Level 6 Floor Plan
DA211	P05	11/11/2022	Level 7 Floor Plan
DA212	P05	11/11/2022	Level 8 Floor Plan
DA213	P05	11/11/2022	Level 9 Floor Plan
DA214	P05	11/11/2022	Level 10 Floor Plan
DA215	P05	11/11/2022	Level 11 Floor Plan
DA216	P05	11/11/2022	Level 12 Floor Plan
DA217	P05	11/11/2022	Level 13 Floor Plan
DA413	P1	4/11/2022	Livable Unit Diagram 1/2
DA414	P1	4/11/2022	Livable Unit Diagram 2/2
DA415	P1	4/11/2022	Pre-post unit 1/4
DA416	P1	4/11/2022	Pre-post unit 2/4
DA417	P1	4/11/2022	Pre-post unit 3/4
DA418	P1	4/11/2022	Pre-post unit 4/4

ANNEXURE B - PREMISES STANDARDS & BCA ASSESSMENT

N/A	Not Applicable. The Deemed-to-Satisfy clause is not applicable to the proposed design.
Complies	The relevant provisions of the Deemed-to-Satisfy clause have been satisfied by the proposed design.
CRA – Refer Annexure F	'COMPLIANCE READILY ACHIEVABLE'. It is considered that there is not enough information included in the documentation to accurately determine strict compliance with the individual clause requirements. However, with further design development, compliance can readily be achievable. This item is to be read in conjunction with the BCA Specification included within Annexure F of this report.
FI	Further Information is necessary to determine the compliance potential of the building design.
PS	Performance Solution with respect to this Deemed-to-Satisfy Provision is necessary to satisfy the relevant Performance Requirements.
DNC	Does Not Comply.
Noted	BCA Clause simply provides a statement not requiring specific design comment or confirmation.

Building Code of Australia 2019 Assessment Summary (BCA2019) / Premises Standards (Access Code)

Table 6. BCA 2019 Summary

Clause	Clause Requirements	Comment	Status
Section D: Access and Egress			
Part D2 – Construction of Exits			
D2.15: Thresholds	<p>The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless –</p> <ul style="list-style-type: none"> (a) in a building required to be accessible by Part D3, the doorway – <ul style="list-style-type: none"> (i) opens to a road or open space; and (ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1; or (b) in other cases – <ul style="list-style-type: none"> (i) the doorway opens to a road or open space, external stair landing or external balcony; and (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway open. 	<p>The threshold provided throughout the building must be provided in accordance with this Clause. Based on majority of the doorways being internal or accessible it is considered that compliance would be available.</p>	CRA – Refer Annexure F
D2.17: Handrails	<ul style="list-style-type: none"> (a) Except for handrails referred to in D2.18, handrails must be – <ul style="list-style-type: none"> (i) located along at least one side of the ramp or flight; and (ii) located along each side if the total width of the stairway or ramp is 2 m or more; and (iii) measured above the nosings of stair treads and the floor surface of the ramp, landing or the like; and 	<p>Throughout the stairway it is required that handrails are provided in accordance with this clause. At this stage no details of the handrails have been provided.</p> <p>To comply with Clause 12 of AS1428.1-2009 it is required to provide an offset to allow for a continuous height being maintained throughout the flights and landing.</p> <p>It would be required to modify each of the stairs to have the offset riser located at the base of the flight.</p>	Noted

Section D: Access and Egress

- | | | | |
|--|--|---|--|
| | <ul style="list-style-type: none"> (iv) in any other case, fixed at a height of not less than 865 mm measured above the nosings of stair treads and the floor surface of the ramp, landing, or the like; and (v) continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand-hold; and (vi) in a required exit serving an area required to be accessible, designed and constructed to comply with clause 12 of AS 1428.1, except that clause 12(d) does not apply to a handrail required by (a)(iii)(B). (b) Handrails required to assist people with a disability must be provided in accordance with D3.3 (c) Handrails to a stairway or ramp within a sole-occupancy unit in a Class 2 or 3 buildings or Class 4 part of a building must – <ul style="list-style-type: none"> (i) be located along at least one side of the flight or ramp; and (ii) be located along the full length of the flight or ramp, except in the case where a handrail is associated with a barrier, the handrail may terminate where the barrier terminates; and (iii) have the top surface of the handrail not less than 865 mm vertically above the nosings of the stair treads of the floor surface of the ramp; and (iv) have no obstruction on or above them that will tend to break a handhold, except for newel posts, ball type stanchions, or the like. (d) The requirements of (d) do not apply to – <ul style="list-style-type: none"> (i) handrails referred to in D2.18; or | <p>Refer to separate BCA Assessment Report for further details.</p> | |
|--|--|---|--|

Section D: Access and Egress			
	<ul style="list-style-type: none"> (ii) a stairway or ramp providing a change in elevation of less than 1m; or (iii) a landing; or (iv) a winder where a newel post is installed to provide a handhold. 		
D2.21: Operation of latch	<ul style="list-style-type: none"> (a) A door in a required exit, forming part of a required exit or in the path of travel to a required exit must be readily openable without a key from the side that faces a person seeking egress, by – <ul style="list-style-type: none"> (i) a single hand downward action on a single device which is located between 900 mm and 1.1 m from the floor and if serving an area required to be accessible by Part D3 – <ul style="list-style-type: none"> (A) be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch; and (B) have a clearance between the handle and the back plate or door face at the centre grip section of the handle of not less than 35 mm and not more than 45 mm; or (ii) a single hand pushing action on a single device which is located between 900 mm and 1.2 mm from the floor; ad (iii) where the latch operation device referred to in (ii) is not located on the door leaf itself – <ul style="list-style-type: none"> (A) manual controls to power-operated doors must be at lest 25 mm wide, proud of the surrounding surface and located – <ul style="list-style-type: none"> (aa) not less than 500 mm from an internal corner; and 	<p>The latches throughout the egress paths of the building are required to be provided in accordance with this clause.</p> <p>This will require a single hand downward action or pushing action on a single device which is located between 900mm and 1.1 m from the floor.</p>	CRA – Refer Annexure F

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	<ul style="list-style-type: none"> (bb) for a hinged door, between 1 m and 2 m from the door leaf (cc) for a sliding door, within 2 m of the doorway and clear of a surface mounted door in the open position. (B) braille and tactile signage complying with Clause 3 and 6 of Specification D3.6 must identify the latch operation device. (b) The requirements of (a) do not apply to a door that – <ul style="list-style-type: none"> (i) serves a vault, strong-room, sanitary compartment, or the like; or (ii) is fitted with a fail-safe device which automatically unlocks the door upon the activation of any sprinkler system (other than a FPAA101D system) complying with Specification E1.5 or smoke, or any other detector system deemed suitable in accordance with AS 1670.1 installed throughout the building, and is readily openable when unlocked; 		
Part D3 – Access for People with a Disability			
D3.0: Deemed-to-Satisfy Provisions	Informational		Noted
D3.1: General Building Access Requirements	<p>An accessway complying with AS1428.1 is required to the following:</p> <p>Class 2 –</p> <p>From a pedestrian entrance to at least 1 floor containing SOU's, to the entrance doorway of each SOU located on</p>	Access is considered to be maintained throughout the building due to lift shafts serving each of the storeys throughout the building.	<p>DNC</p> <p>Refer to Part 2.9 of this Report.</p>

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that level, and any other level served by a passenger lift or an accessible ramp.

To and within not less than 1 of each type of room or space for use in common by the residents (e.g. cooking facility, gymnasium, swimming pool, laundry, etc.)

Class 7 –

To and within any level containing accessible carparking spaces.

Class 9b –

To and within all areas normally used by the occupants.

Access is generally deemed to be provided to each of the areas as required in accordance with this Clause, except for the areas discussed within Clause D3.4.

However; it is noted that there are several doorways throughout the building where sufficient clear opening and latchside circulation would not be provided. The following doorways will need to be updated to ensure that at least one of the door leafs will maintain the required 850mm clear opening and latchside clearance is provided:

- > Each of the doorways to the lift lobbies in the carpark storeys
- > The double doors adjacent to the communal room on Basement 2 of Building B
- > The two doorways located at the top and base of the ramp connecting to the carpark on Basement 2 of Building B. Furthermore, consideration will need to be given to handrail extensions and their implication.
- > Each of the doorways leading to the gym
- > The double doors from the podium to Building B on Basement 2.
- > The double doors from the Building B on ground Floor to the new road.

Additionally, access to each of the lifts are generally provided; however, in Building A on Basement 3 the platform lift is not provided with a 1500mm x 1500mm landing to allow for a 90 degree turn to reach the lift. The location of this lift will need to be shifted to allow for compliance.

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D3.2: Access to Buildings	<p>(a) An accessway must be provided to a building required to accessible –</p> <ul style="list-style-type: none"> (i) from the main points of a pedestrian entry at the allotment boundary; and (ii) from another accessible building connected by a pedestrian link; and (iii) from any required accessible carparking space on the allotment. <p>(b) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and –</p> <ul style="list-style-type: none"> (i) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and (ii) in a building with a total floor area more than 500 m², a pedestrian entrance which is not accessible must not be located more than 50 m from an accessible pedestrian entrance, <p>except for pedestrian entrances serving only areas exempted by D3.4.</p> <p>(c) Where a pedestrian entrance required to be accessible has multiple doorways—</p> <ul style="list-style-type: none"> (i) if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and (ii) if a pedestrian entrance consists of more than 3 doorways — not less than 50% of those doorways must be accessible. <p>(d) For the purposes of (c)—</p> <ul style="list-style-type: none"> (i) an accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where— 	<p>Throughout the Ground Floor there are several access points into the building which are made accessible from the footpath via walkways and suitably level accessways.</p> <p>Each of the accessible entry points are provided with access via a walkway which is capable of complying with AS1428.1-2009 and each of the doorways will comply with AS1428.1-2009 with regards to clear openings and circulation.</p> <p>However, it is noted that all the buildings are provided with open space which is provided with building entries and is connected to the new proposed road. However, these areas are only accessible via stair ways and would not allow for compliant access in accordance with this Clause.</p> <p>These locations are located more than 50m from the accessible entrance on the other street frontages and therefore compliance would not be achieved. It would be required that lifts are provided where the external stairs are provided to allow for access to each of the podium areas.</p>	<p>DNC Refer to Part 2.9 of this Report.</p>
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	<p>(A) all doorways serve the same part or parts of the building; and</p> <p>(B) the distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D3.2); and</p> <p>(ii) a doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D3.2).</p> <p>(e) Where a doorway on an accessway has multiple leaves, (except an automatic opening door) one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1.</p>		
D3.3: Parts of Buildings to be Accessible	<ul style="list-style-type: none"> > Walkways and ramps must comply with clause 10 of AS 1428.1-2009. > Non-fire-isolated stairways must comply with Clause 11 of AS 1428.1-2009. > Fire-isolated stairways must comply with clause 11 (f) & (g) of AS 1428.1-2009. <p>The accessways must be provided with:</p> <ul style="list-style-type: none"> > Passing spaces (1800x2000mm) complying with AS1428.1 at 20m max. intervals where direct line of sight is not available. > Turning spaces (1540x2070mm) complying with AS1428.1 within 2m of the end of accessways (including corridors or the like); and at 20m max. intervals along an accessway. > An intersection of accessways satisfies the spatial requirements for a passing and turning space. <p>Note: The Access to Premises Standards do not provide the concessions provided in sub-clauses (g) and (h) in this</p>	<ul style="list-style-type: none"> > Walkways and ramps must comply with clause 10 of AS 1428.1-2009. The walkways and ramps provided throughout are considered to be suitable to allow for compliance as 1:14 and 1:20 grades are detailed as being provided. Where the ramp is proposed in Building B it is detailed with two handrails as required. <p>Basement 2 of Building B there is a series of 1:14 ramps that are not provided with the required 1200mm landing and will need to be updated.</p> <ul style="list-style-type: none"> > Non-fire-isolated stairways must comply with Clause 11 of AS 1428.1-2009. This will require the external stairways and the internal stairs in Building A, B D to be provided with two handrails, handrail extensions and terminations. <p>It is noted that the Building B stair on Basement 3 will need to have a handrail extension provided to the base of the flight and will likely impact on the use of the adjacent doorway, therefore it would be proposed that this stair is shifted to avoid a conflict.</p>	<p>DNC</p> <p>Refer to Part 2.9 of this Report.</p>

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	<p>clause, hence compliance with the Access to Premises Standards will require the floor covering in the accessible areas to strictly comply with Clause 7.4.1(a) of AS1428.1-2009.</p>	<p>Additionally, the internal stair on Ground to Level 1 will need handrail extensions that will impact on the corridor and would not comply with AS1428.1-2009. This flight will need to be modified to be setback to ensure the handrails don't continue into the corridor.</p> <p>Note: the stairs within the SOUs are not captured by this Clause.</p> <ul style="list-style-type: none"> > Fire-isolated stairways must comply with clause 11 (f) & (g) of AS 1428.1-2009. This will require suitable nosing strips being provided to each of the treads that maintain a luminance contrast. > Passing spaces (1800x2000mm) complying with AS1428.1 at 20m max. intervals where direct line of sight is not available. <p>It is found that Building A on Basement 2 and 1 have a corridor more than 20m in length with no passing space provided. This will need to be addressed to ensure that the internals to a passing space are less than 20m in these two instances to comply.</p> <p>The remainder of the storeys are noted to be less than 20m or provided with a passing space at the intersecting corridors to the lifts.</p> <ul style="list-style-type: none"> > Turning spaces (1540x2070mm) complying with AS1428.1 within 2m of the end of accessways (including corridors or the like); and at 20m max. intervals along an accessway have generally been provided throughout the building. 	
D3.4: Exemptions	<p>Certain areas can be exempted under this clause if pose a health and safety risk for people with disability and /or access would be inappropriate because the particular purpose for which this area is used (e.g. plant rooms, service areas, heavy / toxic item storage, etc.)</p>	<p>The following areas within this development have been identified as potential excepted areas, subject to certifier's approval:</p> <ul style="list-style-type: none"> > Bin Rooms throughout the Basement storeys 	Noted

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		<ul style="list-style-type: none"> > Services Cupboards throughout the storeys > Main Switch Rooms on Basement 3 > Carpark Fan Supply Rooms on Basement 3 > Plant and Pump Rooms on Basement 3 > Service Rooms on Ground Floor > Roof Top Plan Areas 	
D3.4: Accessible Car Parking	<p>Note: Adaptable parking spaces will require to comply with AS4299 (or AS2890.6 if described in DCP).</p> <p>Note: Livable housing parking spaces will require to comply with LHDG only when forming part of the SOU's access.</p>	Clause is not applicable due to no commercial parking being made available only residential.	Noted
D3.6: Signage	<ul style="list-style-type: none"> > Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access, or deafness as appropriate, must identify each: <ul style="list-style-type: none"> ○ sanitary facility; and ○ identify each door required by E4.5 to be provided with an exit sign and state "Exit" and "Level" and either: <ul style="list-style-type: none"> (aa) the floor level number; or (bb) a floor level descriptor; or (cc) a combination of (aa) and (bb) > Signage to accessible sanitary facilities must identify if the facility is suitable for left or right handed use; and > Signage to identify an ambulant accessible facility in accordance with AS 1428.1 must be located on the door of the facility. 	Signage is required to be provided throughout the building in accordance with this Clause.	CRA – Refer Annexure F

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	<ul style="list-style-type: none"> > Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance; > Where a bank of facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access in accordance with AS 1428.1 must be placed at the location of the sanitary facilities that are not accessible, to direct a person to the location of the nearest accessible unisex facility. 		
D3.7: Hearing Augmentation	N/A	Clause not applicable due to building classification, this is based upon the proposed gym considered not to have an inbuilt amplification system.	N/A
D3.8: Tactile Indicators	<ul style="list-style-type: none"> (a) For a building required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching— <ul style="list-style-type: none"> (i) stairway, other than a fire-isolated stairway; and (ii) an escalator; and (iii) a passenger conveyor or moving walk; and (iv) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and (v) in the absence of a suitable barrier— <ul style="list-style-type: none"> (A) an overhead obstruction less than 2 m above floor level, other than a doorway; and (B) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian 	<p>Tactile indicators are required to be provided at the top and base of the non-fire isolated stairways and ramps.</p> <p>No details have been provided at this stage.</p> <p>Additionally, any locations where there is a reduced head clearance of less than 2m TGSIs will need to be provided.</p>	

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	<p>entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point,</p> <p>except for areas exempted by D3.4. (b)</p> <p>(b) Tactile ground surface indicators required by (a) must comply with sections 1 and 2 of AS/NZS 1428.4.1.</p> <p>Class 3 aged care, Class 9a & 9c not listed above</p> <p>TGSI's to be provided in compliance with this Clause, AS1428.1, AS1428.4.1 and AS4586/HB198 at bottom and top of stairs / ramps (except fire-isolated).</p> <p>Ensure installed full tread width, colour contrasting with adjacent surface, slip resistance and 300mm from the ramp edge of stair riser.</p>		
D3.9: Wheelchair seating spaces in Class 9b Assembly Buildings	N/A	Clause not applicable due to building classification	N/A
D3.10: Swimming Pools	At least one accessway to / from the swimming pool to be provided according to this Clause and Table D3.1 and AS1428.1.	<p>Due to the perimeter of the pool, it is required that a method of access is provided in accordance with this Clause and Specification D3.10.</p> <p>Details will need to be provided as to how compliance will be achieved.</p>	CRA – Refer Annexure F
D3.11: Ramps	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.	It is noted that the ramps throughout the building would not maintain a vertical rise of more than 3.6m and there are no step ramps proposed	Noted
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	Glazing throughout the building that is capable of being mistaken for a doorway or opening, must be clearly marked in accordance with this Clause and AS 1428.1.	CRA – Refer Annexure F

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	or opening, must be clearly marked in accordance with AS 1428.1.		
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Section E: Services and Equipment**Part E3 – Lift Installations**

E3.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
E3.6: Passenger Lifts	<p>The passenger lifts must be one of the types specified in Table E3.6a, have accessible features in accordance with Table E3.6b, as follows:</p> <ul style="list-style-type: none"> > Handrail complying with the provisions for a mandatory handrail in AS 1735.12. > Lift floor dimensions not less than 1400 mm wide by 1600 mm deep (lifts that travel more than 12m) > Lift floor dimensions not less than 1100 mm wide by 1400 mm deep (lifts that travel not more than 12m) > Minimum clear door opening complying with AS 1735.12. > Passenger protection system complying with AS1735.12. > Lift car and landing control buttons complying with AS 1735.12. > Lighting in accordance with AS 1735.12. (a) Automatic audible information within the lift car to identify the level each time the car stops; and (b) audible and visual indication at each lift landing to indicate the arrival of the lift car; and 	<p>Each of the lifts serving the building are required to be provided with accessible features in accordance with this Clause and AS1735.12.</p> <p>Each of the lifts are found to be of a suitable size to allow for compliance being maintained in accordance with this clause.</p> <p>Provisions required under this Clause will need to be provided into each of the lift cars.</p>	CRA – Refer Annexure F

Section E: Services and Equipment

	<p>(c) audible information and audible indication required by (a) and (b) is to be provided in a range of between 20–80 dB(A) at a maximum frequency of 1 500 Hz.</p> <p>Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received.</p> <p>Note: Platform lifts can be used up to 4m travel distance.</p>		
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Section F: Healthy and Amenity**Part F2 – Sanitary and Other Facilities**

F2.0: Deemed-to-Satisfy Provisions	Informational	Noted	Noted
F2.4: Accessible Sanitary Facilities (including Table F2.4)	<p>In a building required to be accessible—</p> <p>(a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and</p> <p>(b) accessible unisex showers must be provided in accordance with Table F2.4(b); and</p> <p>(c) at each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and</p> <p>(d) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and</p>	At this stage there are no communal sanitary compartments provided within the building. The change rooms are not detailed with WCs or the like.	Noted

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	<ul style="list-style-type: none"> (e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1; and (f) an accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and (g) where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible; and (h) where male sanitary facilities are provided at a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of those locations; and (i) compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D3.3(f) to be provided with a passenger lift or ramp complying with AS 1428.1. 		
F2.9: Accessible adult change facilities	N/A	Clause not applicable due to the use of the building	N/A

ANNEXURE C - LHDG ASSESSMENT

Table 7. LHDG Assessment

Item	Design Element	Comment	Compliance
1.	Dwelling (SOU) Access		
	<p>Silver Level</p> <p>(a) Provide a safe, continuous step-free pathway from the front boundary of the property to an entry door to the dwelling.</p> <p>(b) This provision does not apply where the average slope of the ground where the path would feature is steeper than 1:14.</p> <p>(c) The path of travel referred to in (a) should have a minimum clear width of 1000mm and have;</p> <ul style="list-style-type: none"> (i) No steps; (ii) An even, firm, slip resistant surface; (iii) A crossfall of not more than 1:40; (iv) A maximum pathway slope of 1:14 <p>Where ramps are required they should have landings provided at no greater than 9m for a 1:14 ramp and no greater than 15m for ramps steeper than 1:20. Landings should be no less than 1200mm in length.</p> <p>(d) The path of travel referred to in (a) may be provided via an associated car parking space for the dwelling. Where a car parking space is relied upon as the safe and continuous pathway to the dwelling entrance, the space should incorporate:</p> <ul style="list-style-type: none"> (i) Minimum dimensions of at least 3200 mm (width) x 5400mm (length); (ii) An even, firm and slip resistant surface; and (iii) A level surface (1:40 maximum gradient, 1:33 maximum gradient for bitumen). 	<p>Suitable access has been provided into the livable unit designs in accordance with the provisions of this clause. It is considered that internal access is provided and therefore this will be level.</p> <p>Access will be provided to each of the building via an accessible entry to allow for compliance with this Part.</p>	CRA – Refer Annexure F

Item	Design Element	Comment	Compliance
	<p>(e) A step ramp may be incorporated at an entrance doorway where there is a change in height of 190mm or less. The step ramp should provide:</p> <ul style="list-style-type: none"> (i) A maximum gradient of 1:10 (ii) A minimum clear width of 1000mm (please note: width should reflect the pathway width) (iii) A maximum length of 1900 mm <p>(f) Where a ramp is part of the pathway, level landings no less than 1200mm in length, exclusive of the swing of the door or gate than opens onto them, must be provided at the head and foot of the ramp.</p> <p>Note: The width of the landing will be determined by the adjoining pathway. If the landing directly adjoins the doorway please refer to Element 2 for dimensional requirements.</p>		
2.	Dwelling (SOU) Entrance		
	<p>Silver Level</p> <p>(a) The dwelling should provide an entrance door with –</p> <ul style="list-style-type: none"> (i) A minimum clear opening width of 820mm (see Figure 2(a)); (ii) A level (step-free) transition and threshold (maximum vertical tolerance of 5mm between abutting surfaces is allowable provided the lip is rounded or bevelled); and (iii) Reasonable shelter from the weather. <p>(b) A level landing area of at least 1200mm x 1200mm should be provided at the level (step free) entrance door. A level landing area at the entrance door should be provided on the arrival side of the door (i.e. the external side of the door) to allow a person to safely stand and then open the door.</p> <p>(c) Where the threshold at the entrance exceeds 5mm and is less than 56mm, a ramped threshold may be provided (see Figure 1(b)).</p>	<p>Suitable access has been provided into the livable unit designs in accordance with the provisions of this clause. It is considered that internal access is provided and therefore this will be level.</p> <p>A sufficient doorway and circulation have been provided.</p>	CRA – Refer Annexure F

Item	Design Element	Comment	Compliance
	<p>(d) The level (step-free) entrance should be connected to the safe and continuous pathway as specified in Element 1.</p> <p>Note: The entrance must incorporate waterproofing and termite management requirements as specified in the NCC.</p>		
3.	Internal Doors and Corridors		
	<p>Silver Level</p> <p>(a) Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:</p> <p>(i) A minimum clear opening width of 820mm (see Figure 2(a)); and</p> <p>(ii) A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfacers if allowable provided the lip is rounded or bevelled).</p> <p>(b) Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of 1000mm</p> <p>* Corridor widths should be measured as described in Clause 6.3 of AS 1428.1 – 2009</p>	<p>Doorways and corridors provided throughout the unit are considered to maintain the required clear opening in accordance with this clause.</p>	CRA – Refer Annexure F
4.	Toilet		
	<p>Silver Level</p> <p>(a) Dwellings should have a toilet on the ground (or entry) level that provides:</p> <p>(i) A minimum clear width of 900mm between the walls of the bathroom if located in a separate room; and</p> <p>(ii) A minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door in accordance with Figure 3(a).</p> <p>(iii) The toilet pan should be located in the corner of the room (if the toilet is located in a combined toilet / bathroom) to enable installation of grabrails at a future</p>	<p>Each of the toilets are generally noted as being located in the corner of the room and provided with a suitable clearance in front of the pan.</p> <p>However, it is considered that several locations are provided with a swinging door with proximity and other with a sliding door within the adjacent wall which may impact on reinforcement. Unit B.01.05; B.02.05; B.03.05 contain the swinging door and Unit B.B1.06; B.00.05 have the sliding door.</p> <p>These locations will need to be updated to ensure that there is a WC within the unit that is provided adjacent to a wall that may be provided with reinforcement while maintaining the required clear space in front of the pan.</p>	<p>DNC</p> <p>Refer to Part 2.9 of this Report.</p>

Item	Design Element	Comment	Compliance
	date. Reinforcement guidelines for walls in bathrooms and toilets are found in element 6.		
5.	Shower		
	<p>Silver Level</p> <p>(a) One bathroom should feature a slip resistant, hobless shower recess. Shower screens are permitted provided they can be easily removed at a later date.</p> <p>(b) The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.</p> <p>For hobless specification please see Australian Standard AS3740-3.6.</p> <p>Reinforcement guidelines for walls in bathrooms and toilets are found in element 6.</p>	The showers are considered as being capable of comply with this clause.	CRA – Refer Annexure F
6.	Reinforcement of bathroom & toilet walls		
	<p>Silver Level</p> <p>(a) Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grabrails.</p> <p>(b) The walls around the toilet are to be reinforced by installing:</p> <p>(i) Noggings with a thickness of at least 25mm in accordance with Figure 6(a); or</p> <p>(ii) Sheeting with a thickness of at least 12mm in accordance with Figure 6(b).</p> <p>(c) The walls around the bath are to be reinforced by installing:</p> <p>(i) Noggins with a thickness of at least 25mm in accordance with Figure 7(a); or</p>	Provisioning for reinforcement is required to be provided within the bathroom walls in accordance with this Clause.	CRA – Refer Annexure F

Item	Design Element	Comment	Compliance
	<ul style="list-style-type: none"> (ii) Sheeting with a thickness of at least 12mm in accordance with Figure 7(b). (d) The walls around the hobless shower recess are to be reinforced by installing: <ul style="list-style-type: none"> (i) Noggins with a thickness of at least 25mm in accordance with Figure 8(a); or (ii) Sheeting with a thickness of at least 12mm in accordance with Figure 8(b). 		
7.	Internal stairways		
	<p>Silver Level</p> <ul style="list-style-type: none"> (a) Stairways in dwellings must feature: <ul style="list-style-type: none"> (i) A continuous handrail on one side of the stairway where there is a rise of more than 1m. <p>Note: This is a requirement for all new homes under the NCC.</p>	<p>Each of the livable units containing two storeys will need to have a handrail provided to the stairway.</p> <p>It is noted that this is a BCA compliance matter and compliance would be required</p>	CRA – Refer Annexure F

ANNEXURE D - ADAPTABLE HOUSING

Table 8. Class C

Item	Room/Item	Clause	Comment	Compliance
Drawings				
1.	Provision of drawings showing the housing unit in its pre-adaptation and post-adaptation stages	2.3	Pre and post adaption plans to be provided at construction stage.	CRA – Refer Annexure F
Siting				
3.	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with AS1428.1	3.3.2	No street parking will be provided. An accessway (walkways) from the street frontage will be provided. Access will be provided from the basement carpark to all SOU's via a shared lift.	CRA – Refer Annexure F
Letterboxes in Estate Developments				
11.	Letterboxes to be on hard standing area connected to accessible pathway.	3.8	Letterboxes for the residential units are provided adjacent to the street entry. No specific details provided at this stage; compliance readily achievable.	CRA – Refer Annexure F
Private Car Accommodation				
14.	Carparking space or garage min area 6.0x3.8m	3.7.2	The adaptable car spaces are provided within basement car park. The sizing of the spaces for the adaptable unit are suitable with AS2890.6 as per DCP requirement (2400x5400mm). Care is to be taken to ensure that a clear height of 2.5m over the carparking space and 2.2m leading to it will be achieved. This is to be clarified at the CC stage of the development.	CRA – Refer Annexure F
Accessible Entry				

Item	Room/Item	Clause	Comment	Compliance
20.	Accessible entry	4.3.1	The entry door to the adaptable units are found to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1.	CRA – Refer Annexure F
21.	Accessible entry to be level (i.e. max. 1:40 slope)	4.3.2	Units are accessed from an internal level common corridor.	CRA – Refer Annexure F
23.	Threshold to be low-level	4.3.2	Public corridors assumed to be flat.	CRA – Refer Annexure F
24.	Landing to enable wheelchair manoeuvrability	4.3.2	The SOU's entry doors are internal to the building.	CRA – Refer Annexure F
25.	Accessible entry door to have 850mm minimum clearance	4.3.1	The entry door to the adaptable units are found to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1.	CRA – Refer Annexure F
27.	Door lever handles and hardware to AS1428.1	4.3.4	Door handles are to comply with AS1428.1-2009 at construction stage.	CRA – Refer Annexure F
Interior: General				
32.	Internal doors to have 820mm min. clearance	4.3.3	Internal doors are required to have a minimum clear opening of 820mm and provisioning to be increased to 850mm at post-adaptation stage. Currently, several doors are not detailed as maintaining the required 850mm clear openings to the bedrooms as accessible rooms and will need to be updated at the CC stage.	DNC Refer to Part 2.9 of this Report.
33.	Internal corridors width of 1000mm min.	4.3.7	Internal corridors within the units have a minimum width of 1000mm and circulation space at doorways to be in compliance with AS1428.1.	CRA – Refer Annexure F
34.	Provision for compliance with AS1428.1 for door approaches	4.3.7	Circulation spaces at doorways within the unit comply with AS1428.1-2009. Except there are several locations where	DNC

Item	Room/Item	Clause	Comment	Compliance
			the bedroom door will not maintain the required latchside circulation to the bed (B.B2.05) and the bathroom door to D.01.01. The plans will need to be updated to ensure the required 510mm/530mm latchside clearance is maintained.	Refer to Part 2.9 of this Report.
Living Room & Dining Room				
36.	Provision for circulation space of 2250mm min. diameter	4.7.1	A circulation space of min. 2250mm diameter has been made available in the living areas after the furniture has been placed.	Complies
38.	Telephone adjacent to GPO	4.7.4	Telephone outlet adjacent to GPO in living/dining area to be indicated on post adaption plan.	CRA – Refer Annexure F
41.	Potential illumination level min. 300Lux	4.1.0	Lighting to comply at construction stage.	CRA – Refer Annexure F
Kitchen				
42.	Minimum width 2.7m (1550mm clear between benches)	4.5.2	1550mm min. clearance is provided in front of sink and appliances.	Complies
43.	Provision for circulation at doors to comply with AS1428.1	4.5.1	There are no kitchen doors proposed.	N/A
44.	Provision for benches planned to include at least one work surface of 800mm length, adjustable in height from 750 mm to 850mm or replaceable. Refer to Figure 4.8.	4.5.5	Work surface adjacent of 800mm to be indicated on post adaption plan.	FI
45.	Refrigerator adjacent to work surface	4.5.5	Work surface adjacent to the fridge of 800mm to be indicated on post adaption plan.	FI
46.	Kitchen sink adjustable to heights from 750mm to 850mm or replaceable	4.5.6	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F

Item	Room/Item	Clause	Comment	Compliance
47.	Kitchen sink bowl max. 150mm deep	4.5.6	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
48.	Tap set capstan or lever handles or lever mixer	4.5.6(e)	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
49.	Tap set located within 300mm of front of sink	4.5.6(e)	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
51.	Cook tops to include either front or side controls with raised cross bars	4.5.7	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
52.	Cook tops to include isolating switch	4.5.7	Cook tops to be provisioned with isolating switches or gas stop valves that can be easily and safely operated with the cook top is in use. To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
53.	Work surface min. 800mm length adjacent to cook top at same height	4.5.7	Work surface adjacent to, and at the same height as the, cook top of 800mm to be indicated on post adaption plan.	FI
54.	Oven located adjacent to an adjustable height or replaceable work surface	4.5.8	The oven is to be adjacent to an 800mm wide work surface and to be indicated on post adaption plan.	FI
59.	GPOs to comply with AS 1428.1. At least one double GPO within 300mm of front of work surface	4.5.11	GPOs to comply with AS1428.1. At least one double GPO within 300mm of front of work surface.	CRA – Refer Annexure F
60.	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position	4.5.11	GPO for refrigerator to be easily reachable when the refrigerator is in its operating position.	CRA – Refer Annexure F
61.	Slip-resistant floor surface	4.5.4	Floors to be slip resistant to comply with AS3661.1. Certificate to be provided at CC stage. Note: AS4586:2013/HB 198:2014 is satisfactory.	CRA – Refer Annexure F
Main Bedroom				

Item	Room/Item	Clause	Comment	Compliance
62.	At least one bedroom of area sufficient to accommodate queen size bed, wardrobe and circulation space requirements of AS1428.2	4.6.1	The proposed bedrooms are required to maintain suitable circulation around a queen bed. All bedroom types noted as being provided with suitable circulation and would be capable of complying with this Clause when reviewing the Livable requirements.	Complies
Bathroom				
75.	Provision for bathroom area to comply with AS1428.1	4.4.1	The bathroom and shower areas are noted to be of a suitable size to comply with Clause 15 of AS1428.1-2009 The use of the 2021 standard will be applied to allow for the use of the shower seat to be located in the folded position. However, it is noted that the layout of the bathroom will need to be addressed to ensure that the seat and the shower head are swapped and located on the appropriate wall as per the standard. Note: Extra capped-off plumbing services to be provided if fixtures relocation is required at post-adaptation stage. It is recommended to arrange fixtures in post-adaptation location where possible.	FI
76.	Slip-resistant floor surface	4.4.2	Floors to be slip resistant to comply with AS3661.1. Certificate to be provided at CC stage. Note: AS4586:2013/HB 198:2014 is satisfactory.	CRA – Refer Annexure F
77.	Shower recess-no hob. Minimum size 1160x1100mm to comply with AS1428.1 (Refer Figures 4.6 and 4.7)	4.4.4(f)	Shower to be hob-less. The post adaption plans to show AS1428.1 compliant sizes and fit-out.	CRA – Refer Annexure F
78.	Shower area waterproofed to AS3740 with floor to fall to waste	4.4.4(f)	Entire bathroom to comply with AS3740.	CRA – Refer Annexure F
79.	Recessed soap holder	4.4.4(f)	Soap holder to be recessed.	CRA – Refer Annexure F

Item	Room/Item	Clause	Comment	Compliance
80.	Shower taps positioned for easy reach to access side of shower sliding track	4.4.4(f)	Shower head and taps to be located at a height and clearance compliant to AS1428.1.	CRA – Refer Annexure F
82.	Provision for adjustable, detachable hand held shower rose mounted on a slider grabrail or fixed hook (plumbing and wall – strengthening provision)	4.4.4(h)	Provisioning to be provided. Note: Extra capped-off plumbing services to be provided if fixture relocation is required at post-adaptation stage, including 700mm height shower outlet with back-flow retention valve.	CRA – Refer Annexure F
83.	Provision for grabrail in shower (Refer to Figure 4.7) to comply with AS1428.1	4.4.4(h)	Provisioning to be provided.	CRA – Refer Annexure F
86.	Tap sets to be capstan or lever handles with single outlet	4.4.4(c)	Taps may be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
88.	Provision for washbasin with clearances to comply with AS1428.1	4.4.4(g)	Taps may be updated post adaption, with no works required at this stage.	CRA – Refer Annexure F
90.	Double GPO beside mirror	4.4.4(d)	Double GPO to be provided beside mirror.	CRA – Refer Annexure F
Toilet				
92.	Provision of either “visitable toilet” or accessible toilet	4.4.3	The adaptable unit is provided at pre-adaptation stage with a “visitable” toilet at entry level with 900x1250mm clearance in front of WC pan.	Complies
93.	Provision to comply with AS1428.1	4.4.1	The bathroom area is to comply with Clause 15 of AS1428.1 in relation to dimensions of fixtures, location and circulation spaces. The use of the 2021 standard will be applied to allow for the use of the shower seat to be located in the folded position.	CRA – Refer Annexure F
94.	Location of WC pan at correct distance from fixed walls	4.4.3	Pan to be located correct distances from the walls in accordance with AS1428.1-2009.	CRA – Refer Annexure F

Item	Room/Item	Clause	Comment	Compliance
			To be shown in the post-adaptation plans.	
95.	Provision for grab rail zone (Refer Figure 4.6)	4.4.4(h)	Provisioning to be provided. To be shown in the post-adaptation plans.	CRA – Refer Annexure F
96.	Slip resistant floor surface (vitreous tiles or similar)	4.4.2	Floors to be slip resistant to comply with AS3661.1. Certificate to be provided at CC stage. Note: AS4586:2013/HB 198:2014 is satisfactory.	CRA – Refer Annexure F
Laundry				
98.	Circulation at doors to comply with AS 1428.1	4.8	There are no doors proposed to the laundries at the post adaptation stage	N/A
99.	Provision for adequate circulation space in front of or beside appliances (min. 1550x1550mm)	4.8	??????????	DNC
100.	Provision for automatic washing machine	4.8(e)	Provisioning has been made	CRA – Refer Annexure F
102.	Where clothes line is provided, an accessible path of travel to this	4.8(a)	No clothes line has been included within this development	N/A
105.	Double GPO	4.8(g)	A double GPO must be provided within the laundry in accordance with this Clause	CRA – Refer Annexure F
108.	Slip-resistant floor surface	4.9.1	Slip resistance must be maintained within the laundry in accordance with this Clause	CRA – Refer Annexure F
Door Locks				
110.	Door hardware operable with one hand, located 900–1100mm above floor	4.3.4	Door hardware operable with one hand, located 900–1100mm above floor.	CRA – Refer Annexure F

ANNEXURE E - COMPLIANCE SPECIFICATION

Design Certification

Further due to the level of detail provided at this stage the following items are to form part of a design statement or specification:

General

1. Tactile ground surface indicators will be installed at the top and bottom of stairways / ramps (other than fire isolated stairways / ramps); and where an overhead obstruction is less than 2 metres above the floor level. Tactile ground surface indicators will comply with Sections 1 and 2 of AS1428.4.1.
2. On an accessway where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights or glazing capable of being mistaken for a doorway or opening will be clearly marked and comply with Clause 6.6 of AS1428.1-2009. A solid non-transparent contrasting line not less than 75mm wide is to extend across the full width of the glazing panel. The lower edge of the contrasting line is to be located between 900-1000mm above the plane of the finished floor level. The contrasting line is to provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2 metres of the glazing on the opposite side.
3. All doorways will have a minimum luminance contrast of 30% in accordance with Clause 13.1 of AS1428.1-2009.
4. Fixtures and fittings in accessible sanitary facilities will be provided and installed in accordance Clause 15 of AS1428.1-2009.
5. Fixtures and fittings in ambulant facilities will be provided and installed in accordance Clause 16 of AS1428.1-2009.
6. Walkways will comply with Clause 10 of AS1428.1-2009.
7. For the walkways, the floor or ground surface abutting the sides of the walkway will be firm and level of a different material to that of the walkway at the same level and follow the grade of the walkway and extend horizontally for a minimum of 600mm, or be provided with a kerb or kerb rail in accordance with Clause 10.2 of AS1428.1-2009.
8. Stairways will comply with Clause 11 of AS1428.1-2009.
9. The fire isolated stairs will comply with Clause 11.1(f) and (g) of AS1428.1-2009.
10. Handrails will comply with Clause 12 of AS1428.1-2009.
11. Grabrails will comply with Clause 17 of AS1428.1-2009.
12. Accessible car spaces will achieve compliant headroom clearances in accordance with Clause 2.4 of AS2890.6-2009.
13. Demarcation will be provided in the accessible car space and adjacent shared zone in accordance with Clause 3.1 and 3.2 of AS2890.6. Refer to Annexure B1 for a diagrammatic explanation.
14. Bollards will be provided in the shared disabled car space area in accordance with Clause 2.2.1(e) of AS2890.6-2009. Refer to Annexure B1 for a diagrammatic explanation.
15. Switches and power points will comply with Clause 14 of AS1428.1-2009.
16. Floor and ground floor surfaces on accessible paths and circulation spaces including the external areas will comply with Clause 7 of AS1428.1-2009. Any level difference over 3mm must be ramped according AS1428.1 Clause 10.5.
17. Braille and tactile signage will comply with BCA2019 Clause D3.6.
18. Signage will to comply with Clause 8 of AS1428.1-2009.
19. The passenger lifts will comply with BCA2019 Table E3.6b and AS1735.12.

20. The unobstructed height of a continuous accessible path of travel will be a minimum of 2000mm and 1980mm at doorways.
21. Door handles and the like, will be in accordance with Clause 13.5 of AS1428.1-2009.

Adaptable Housing Units

22. All ground surfaces will be slip resistant to comply with HB197/AS4856.
23. Letterboxes will be on a hard stand area connected to an accessible pathway in accordance with Clause 3.8 of AS4299.
24. The unit entry doors to the adaptable units will comply with the circulation spaces required under AS1428.2 in accordance with Clause 4.3.1 of AS4299.
25. Door hardware will be compliant with AS1428.1-2009 and all external doors will be keyed alike in accordance with Clause 4.3.4 of AS4299.
26. Internal door openings within the adaptable units will have a clear opening of 820mm with door circulation spaces complying with AS1428.1 in accordance with Clauses 4.3.3 and 4.3.7 respectively of AS4299.
27. A telephone outlet will be provided adjacent to GPO in living/dining area in accordance with Clause 4.7.4 of AS4299.
28. The kitchen cabinet design will allow for the removal of the cabinets under the sink and adjacent work surface in accordance with Clause 4.5.6 of AS4299.
29. Cook tops to be provisioned with isolating switches or gas stop valves that can be easily and safely operated with the cook top is in use in accordance with Clause 4.5.7 of AS4299.
30. GPO's will comply with AS 1428.1 with at least one double GPO provided within 300mm of front of work surface and a GPO for refrigerator will be easily reachable when the refrigerator is in its operating position in accordance with Clause 4.5.11 of AS4299.
31. The adaptable bathroom will be provisioned for the fit-out to comply with AS1428.1 in accordance with 4.4.1 of AS4299.
32. The shower of the adaptable bathroom will be hob-less in accordance with Clause 4.4.4(f) of AS4299.
33. The bathrooms will be waterproofed to comply with AS3740.
34. The soap holder will be recessed in accordance with Clause 4.4.4(f) of AS4299.
35. Shower heads and taps will be located at a height and clearance compliant with AS1428.1 in accordance with Clause 4.4.4(f) of AS4299.
36. Provision for the installation of all grabrails, shower hardware, and folding seat will be provided in the adaptable bathroom in accordance with Clause 4.4.4(h) of AS4299.
37. Provision for the installation of a washbasin with clearances as required by AS1428.1 will be provided in accordance with Clause 4.4.4(g) of AS4299.
38. A double GPO will be provided beside the mirror in the adaptable bathroom in accordance with Clause 4.4.4(d) of AS4299.
39. Provision for the toilet to comply with AS1428.1, will be provided, including locating the pan in the correct position, and the provision for the installation of all grabrails in accordance with Clauses 4.4.1, 4.4.3 and 4.4.4(h) of AS4299.
40. Where a clothes line is provided and accessible path of travel will be provided to this in accordance with Clause 4.8(a) of AS4299.
41. A double GPO will be provided in the laundry, as will a shelf at a height of 1200mm maximum in accordance with Clause 4.8 of AS4299.
42. Lighting will be provided to the adaptable units in accordance with Clause 4.10 of AS4299.

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43. Entrance door to have 820mm min. clear door width opening, level transition (5mm max. vertical tolerance) and reasonable shelter from the weather.
44. Entrance door to have 1200x1200mm level landings.
45. “Ramped threshold” (Fig 1b) allowed between 5-56mm height change.
46. Level & “step-free” entrance connected to the “safe and continuous pathway”.
47. Waterproofing and termite management at entry door (as per NCC).
48. Garages to have minimum 3200x5400mm, an even, firm and slip resistant surface with 1:40 max. level surface (1:33 max. asphalt).
49. All internal doors to have 820mm min. clear door opening at entry level rooms, 5mm max. vertical tolerance surface, and 1000mm min. internal corridors at entry level rooms.
50. Toilet to be on entry level (ground floor).
51. If WC is located in a separate room. WC pan circulation space to be 900x1200mm front if WC (door not to encroach) (Fig 3a).
52. If WC is located within a bathroom. WC pan circulation space to be in the corner of the room to enable installation of grabrails (door not to encroach) (Fig 3b).
53. Bathroom to have slip resistant and hobless shower recess (portable shower screens allowed)
54. Shower recess located in a room corner to enable the installation of grabrails.
55. Walls to be constructed of solid masonry or concrete, otherwise to be reinforced (1100N min. withstand in all directions).
56. For WC, the reinforcement to be 25mm thick noggings (Fig 6a), or 12mm thick sheeting (Fig 6b)
57. For baths, reinforcement to be 25mm thick noggings (Fig 7a), or 12mm thick sheeting (Fig 7b)
58. For showers, reinforcement to be 25mm thick noggings (Fig 8a), or 12mm thick sheeting (Fig 8b)
59. A continuous stairway handrail where there is a rise of more than 1m.