

**To:** Cite Group C/- Gartner Trovato Architects

**Project:** 321 Condamine Street, Manly Vale

Report: Access Assessment Report

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# **Document Control**

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#### **EXECUTIVE SUMMARY**

This document provides an assessment of the architectural design drawings for the proposed four (4) storey residential apartment building located at 321 Condamine Street, Manly Vale, against the Deemed-to-Satisfy provisions of the Building Code of Australia (BCA) 2019, Volume 1.

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			
Comp	Compliance Matters to be Addressed				
1.	Currently access to and within the back of house area and the garbage rooms is difficult with lack of door circulation space which will need to be firmed up with design development.	D3.1			
2.	Accessible sanitary facility is required at ground floor level to serve the retail tenancies. Subject to the location and configuration of bathrooms it may be necessary for ambulant disabled toilets in accordance with AS1428.1-2009.	F2.4			
Furthe	Further Information Required				
1.	20% of units (7) need to be designed to comply with the silver level livable housing design guide	SEPP65			
2.	10% of units (4) need to be designed to comply with the Type C requirements of AS4299-1995 Adaptable Housing Standard	Warringah DCP			

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 321 Condamine Street, Manly Vale and comprises a four (4) storey residential apartment building located above four (4) ground floor level retail tenancies.

The building development is located on the corner of Condamine Street and Sunshine Street and is bordered by Somerville Place at the rear where vehicular access to the site is gained to the two (2) basement carparking levels.

## 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 Access to Premises Standards 2010 (Premises Standards);
- > Design Quality of Residential Apartment Development 2015 (SEPP65)
- > Building Code of Australia 2019 (BCA2019) Part D3 and Clauses E3.6 and F2.4;
- > Warringah Development Control Plan (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 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

#### <u>Accessible</u>

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.

#### Affected Part

The affected part is;

- (a) The principal pedestrian of an existing building that contains a new part; and
- (b) Any part of an existing, that contains a new part, that is necessary to provide a continuous accessible path of travel from the entrance to the new part.



## Continuous Accessible Path of Travel

An uninterrupted path of travel to, into or within a building providing access to all access facilities.

#### 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

## <u>Adaptable</u>

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 CONSIDERATIONS

## 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	'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 E 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
7a	Basements 1 - 2	Carparking
6	Ground Floor Portion	Retail unit
2	Level 1-4	Residential SOU's

## 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 maters such as access for people with disabilities, stair and corridor widths and balustrade heights.

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

Warringah DCP (Amended 27 August 2019) provides Council's planning controls on the provision of Accessibility / Adaptability / Universal Design under Parts C1, C3 and C4 of that Plan.

The Controls for Accessibility and Adaptability are as follows:

Table 2. Controls for Accessibility

Item No	Control	Comment	Compliance	
Part D18	Accessibility & Adaptability	Where a development comprises at least 5 dwellings, 10% (rounded up to next whole number) of dwellings shall be capable of being adapted (Class C) under AS4299	CRA	
		1. The design is to achieve a barrier free environment with consideration given to the design of door handles and switches, entrances and corridors. Steep, rough and slippery surfaces, steps and stairs and narrow paths should be avoided.		
		2. There are to be continuous, independent and barrier-free access ways incorporated into the design of buildings.		
Part D18	Accessibility & Adaptability	3. Pathways are to be reasonably level with minimal cross fall and sufficient width, comfortable seating and slip-resistant floor surfaces.	CRA	
		4. Where there is a change of level from the footpath to commercial or industrial floor levels, ramps rather than steps should be incorporated.		
		5. There is to be effective signage and sufficient illumination for people with a disability.		
		6. Tactile ground surface indicators for the orientation of people with visual impairments are to be provided in accordance with the relevant Australian Standard.		
		<b>Note</b> Australian Standard AS1428.4:2002 'Design for Access and Mobility Part 4: Tactile Indicators' applied at the time the DCP was adopted.		
		7. Access for people with a disability is to be provided at the main entrance to the development.		
		8. Development is to comply with Australian Standard AS1428.2.		

# 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	At least four (4) of the units will need to maintain the visitable and adaptable features for the Essential Class C design requirements of AS4299-1995
Livable SOU's	At least seven (7) of the units must be provided with the Silver Level Design features of the Livable Housing Design Guidelines.

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
Levels 1-4	Common areas of the residential levels
Ground Floor Retail	To and within all areas normally used by the occupants
Basement 1 & 2	To and within any level containing accessible car parking spaces

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. Livable 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)

At least one (1) adaptable unit is 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.

Items required to be adaptable are outlined in Annexure E of this Report.





## **Annexure A – Design Documentation**

This report has been based on the following design documentation.

#### Table 5. Architectural Plans

# Architectural Plans Prepared by Gartner Trovato Architects, project 1511 dated 12/5/2020

#### **Drawing Number/Revision/Title**

DA-02[P3] BASEMENT B2 PLAN

DA-03[P3] BASEMENT B1 PLAN

DA-04[P5] GROUND FLOOR PLAN

DA-05[P6] LEVEL 1 PLAN

DA-06[P5] LEVEL 2 PLAN

DA-07[P6] LEVEL 3 PLAN

DA-08[P2] ROOF PLAN - LOWER

DA-09[P4] ROOF PLAN - UPPER

DA-10[P4] EAST & SOUTH ELEVATIONS

DA-11[P3] WEST & NORTH ELEVATIONS

DA-12[P3] SECTION A & B

DA-13[P1] SECTION C

DA-14[P2] SECTION 1 & 3

DA-15[P4] VIEW 1

DA-16[P4] VIEW 2

DA-17[P4] VIEW 3

DA-18[P4] VIEW 4

DA-19[P4] VIEW 5

DA-20[P4] VIEW 6

DA-21[P2] VIEW 7

DA-22[P2] VIEW 8

DA-23[P2] VIEW 9

DA-100[P1] WALL TYPE SCHEDULE





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

# Table 6. BCA 2019 Summary

Clause Clau		ent Status
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Section D: Access and Egress				
Part D2 – Construction of Exits				
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 leaf unless –	It Is noted that level transitions at required doorways has been allowed for.	Complies	
	<ul> <li>(a) in patient care areas in a Class 9a health-care building, the door sill is not more than 25 mm above the finished floor level to which the doorway opens; or</li> </ul>			
	<ul><li>(b) in a Class 9c building, a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or</li></ul>			
	(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 AS 1428.1; or			
	(d) in other cases –			
	(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.			
D2.17: Handrails	(a) Except for handrails referred to in D2.18, handrails must be –	The access stairs to ground floor level will be required to contain the full accessible features outlined in Clause D3.3.	CRA – Refer Annexure E	



Section D: Access and Egress		
	(i) located along at least one side of the ramp or flight; and  The fire isolated stairway need of one side that complies with Classical Stairway need of the side of the ramp or flight; and one side that complies with Classical Stairway need of the side of t	ause 12 of AS1428.1-
	(ii) located along each side if the total width of the stairway or ramp is 2 m or more; and consistent height.	
	(iii) in a Class 9b building used as a primary school  -	
	(A) have one handrail fixed at a height of not less than 865 mm; and	
	(B) have a second handrail fixed at a height between 665 mm and 750 mm,	
	(iv) measured above the nosings of stair treads and the floor surface of the ramp, landing or the like; and	
	<ul> <li>(v) 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</li> </ul>	
	(vi) continuous between stair flight landings and have no obstruction on or above them that will tend to break a hand-hold; and	
	(vii) 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 –	
	(i) in a Class 9a health-care building must be provided along at least one side of every passageway or corridor used by patients, and must be –	
	(A) fixed not less than 50 mm clear of the wall; and	



Section D: Access and Egress		
	(B) where practicable, continuous for their full length.	
	(ii) In a Class 9c aged care building must be provided along both sides of every passageway or corridor used by residents, and must be –	
	(A) fixed not less than 50 mm clear of the wall; and	
	(B) where practicable, continuous for their full length.	
	(c) Handrails required to assist people with a disability must be provided in accordance with D3.3.	
D2.21: Operation of latch	(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 —  Door hardware to required egress doors and paths of travel to them must meet the criteria of this Clause. This specifically relates to lever style hardware.  It is assumed that no doors are proposed to have	
	(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 –	
	(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	CRA – Refer
	(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	Annexure E
	(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 –	



Section D: Access and Egress		
	(A) manual controls to power-operated doors must be at lest 25 mm wide, proud of the surrounding surface and located –	
	(aa) not less than 500 mm from an internal corner; and	
	(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 –	
	(i) serves only, or is within –	
	(A) a sole-occupancy unit in a Class 2 building or a Class 4 part of a building; or	
	(B) a sole-occupancy unit with a floor area not more than 200 m2 in a Class 5, 6 building; or	
	(C) a space which is otherwise inaccessible to persons at all times when the door is locked; or	
	it can be immediately unlocked –	
	(D) by operating a fail-safe control switch, not contained within a protective enclosure, to actuate a device to unlock the door; or	



Section	Section D: Access and Egress				
		(E) by hand by a person or persons, specifically nominated by the owner, properly instructed as to the duties and responsibilities involved and available at all times when the building is lawfully occupied so that persons in the building or part may immediately escape if there is a fire; or			
		(ii) is fitted with a fail-safe device which automatically unlocks the door upon the activation of ay 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	B - Access for People with	a Disability			
D3.0:	Deemed-to-Satisfy Provisions	Informational		Noted	
D3.1:	General Building Access Requirements	The building must be accessible in accordance with Table D3.1. Accessible meaning having the features necessary to permit its use by persons with a disability.  Class 2 —  From a pedestrian entrance to at least 1 floor containing SOU's, to the entrance doorway of each SOU located on 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 6 —  To and within all areas normally used by the occupants.	The design suitably allows for continuous travel to and within the building via the lifts proposed.  Currently access to and within the back of house area and the garbage bin rooms is difficult with lack of door circulation space which will need to be firmed up with design development.	CRA – Refer Annexure E	



Section	n D: Access and Egress			
		Class 7a –  To and within any level containing accessible carparking spaces.		
D3.2:	Access to Buildings	<ul> <li>(a) An accessway must be provided to a building required to accessible –</li> <li>(i) from the main points of a pedestrian entry at the allotment boundary; and</li> <li>(ii) from another accessible building connected by a pedestrian link; and</li> <li>(iii) from any required accessible carparking space on the allotment.</li> <li>(b) In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance,</li> <li>(c) 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.</li> </ul>	An accessway is available to the main entrance doorway in accordance with this clause. The doorway to be not less than 850mm and have compliant door hardware and 30% luminance contrast in accordance with AS1428.1-2009.	CRA – Refer Annexure E
D3.3:	Parts of Buildings to be Accessible	<ul> <li>Walkways and ramps must comply with clause 10 of AS 1428.1-2009.</li> <li>Non-fire-isolated stairways must comply with Clause 11 of AS 1428.1-2009.</li> <li>Fire-isolated stairways must comply with clause 11 (f) &amp; (g) of AS 1428.1-2009.</li> <li>The accessways must be provided with:</li> <li>Passing spaces (1800x2000mm) complying with AS1428.1 at 20m max. intervals where direct line of sight is not available.</li> <li>Turning spaces (1540x2070mm) complying with AS1428.1 within 2m of the end of accessways</li> </ul>	The lift lobby at each level has 1540x2070mm turning bays as required.  The building must maintain the required features of this Clause and the relevant parts of AS 1428.1.	CRA – Refer Annexure E



Section D: Access and Egress			
	(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.		
D3.4: Exemptions	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.)  The following areas within this development have been identified as potential excepted areas, subject to certifier's approval:  Services and Plant rooms.  Main Switch Room	Areas of the building can be exempt from accessibility based upon their particular use and where the areas poses a risk to the health and safety of persons with a disability.	Noted
D3.4: Accessible Car Parking	Accessible carparking spaces to be in compliance with this Clause, AS2890.6 and AS1428.1 in the proportion required by BCA2019 and Council DCP.  Generally, accessible carparking spaces compliant with AS2890.6 will require 2400x5400mm plus an adjacent shared zone of 2400x5400mm. Bollard, demarcation and accessible signage to comply with AS2890.6. Vertical clearance to be 2500mm min over the carparking and 2200mm over the accessway, compliant with AS2890.6.  Note: Adaptable parking spaces will require to comply with AS4299 (or AS2890.6 if described in DCP).  Note: Livable housing parking spaces will require to comply with LHDG only when forming part of the SOU's access.	It is noted that a total of one (1) accessible space is proposed in accordance with the development consent to serve the retail space and visitor space  Suitable provision is to be made for the design and construction to achieve compliance with AS/NZS 2890.6.	CRA – Refer Annexure E
D3.6: Signage	> Braille and tactile signage complying with Specification D3.6 and incorporating the	All required signage to comply with Specification D3.6 and AS1428.1-2009	CRA – Refer Annexure E



international symbol of access, or deafness as appropriate, must identify each:  o sanitary facility; and		
any anges with a bearing augmentation		
<ul> <li>any space with a hearing augmentation system; and</li> </ul>		
<ul> <li>identify each door required by E4.5 to be provided with an exit sign and state "Exit" and "Level" and either:</li> </ul>		
(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.		
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;		
N/A	N/A	N/A
(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—  (i) stairway, other than a fire-isolated stairway; and  (ii) an escalator; and	All non-fire isolated stairs and 1:14 ramps at ground floor level require tactile indicators	CRA – Refer Annexure E
	o identify each door required by E4.5 to be provided with an exit sign and state "Exit" and "Level" and either:  (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.  > 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;  N/A  (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—  (i) stairway, other than a fire-isolated stairway;	system; and  identify each door required by E4.5 to be provided with an exit sign and state "Exit" and "Level" and either:  (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.  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;  N/A  N/A  (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—  (i) stairway, other than a fire-isolated stairway; and



Section	D: Access and Egress		
		(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—	
		(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 entrance serving an area referred to in D3.4, if there is no kerb or kerb ramp at that point,	
		except for areas exempted by D3.4. (b)	
		(b) Tactile ground surface indicators required by (a) must comply with sections 1 and 2 of AS/NZS 1428.4.1.	
		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).	
		Ensure installed full tread width, colour contrasting with adjacent surface, slip resistance and 300mm from the ramp edge of stair riser.	
D3.9:	Wheelchair seating spaces in Class 9b Assembly Buildings	N/A N/A	N/A
D3.10:	Swimming Pools	N/A N/A	N/A
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.  All proposed ramps meet the requirements of this clause ramp or ramp.	Complies



Section	Section D: Access and Egress			
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.	Contrasting solid type banding is required to full height glazing within the common areas.	CRA – Refer Annexure E
Specific	cation D3.6 – Braille and T	actile Signs		
1.	Scope	Informational		Noted
2.	Location of Braille and Tactile Signs	The location of braille and tactile signs shall be in accordance with AS1428.1 and Specification D3.6.	No details of signage provided	CRA – Refer Annexure E
3.	Braille and Tactile Sign Specification	All accessible signage to comply with this clause and AS1428.1. Tactile characters to be raised in sentence case with matt finish.	No details of signage provided	CRA – Refer Annexure E
4.	Luminance-contrast	All accessible signage to comply with this clause and As1428.1. The sign background to have at least 30% luminance contrast with the 5mm width border, tactile characters and braille. Luminance contrast to be measured on the location once installed.	No details of signage provided	CRA – Refer Annexure E
5.	Lighting	Braille and tactile signs to be appropriate illuminated, in complaint with this Clause and AS1428.1. The access pathway must have a minimum luminance contrast of 30%, in accordance with AS1428.1.	No details of signage provided	CRA – Refer Annexure E
6.	Braille	Braille must be in accordance with the criteria set out by the Australian Braille Authority.	No details of signage provided	CRA – Refer Annexure E

# **Section E: Services and Equipment**

Part E3 - Lift Installations



Sectio	Section E: Services and Equipment			
E3.0:	Deemed-to-Satisfy Provisions	Informational		Noted
E3.0:	Passenger Lifts	<ul> <li>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:</li> <li>Handrail complying with the provisions for a mandatory handrail in AS 1735.12.</li> <li>Lift floor dimensions not less than 1400 mm wide by 1600 mm deep (lifts that travel more than 12m)</li> <li>Lift floor dimensions not less than 1100 mm wide by 1400 mm deep (lifts that travel not more than 12m)</li> <li>Minimum clear door opening complying with AS 1735.12.</li> <li>Passenger protection system complying with AS 1735.12.</li> <li>Lift car and landing control buttons complying with AS 1735.12.</li> <li>Lighting in accordance with AS 1735.12.</li> <li>(a) Automatic audible information within the lift car to identify the level each time the car stops; and</li> <li>(b) audible and visual indication at each lift landing to indicate the arrival of the lift car; and</li> <li>(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.</li> <li>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.</li> <li>Note: Platform lifts can be used up to 4m travel distance.</li> </ul>	The lift car has a 1400x1600mm dimension that would be suitable provision for the appropriate lift car size.  All accessible features of AS1735.12 to be provided.	CRA – Refer Annexure E



Section	Section F: Healthy and Amenity				
Part F2	– Sanitary and Other Faci	lities			
F2.0:	Deemed-to-Satisfy Provisions	Informational	Noted		
F2.4:	Accessible Sanitary Facilities (including Table F2.4)	In a building required to be accessible—  (a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4(a); and  (b) 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  (c) an accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and  (d) 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	CRA – Refer Annexure E		
F2.9:	Accessible adult change facilities	(i) N/A N/A	N/A		





# Annexure C – LHDG Assessment

Table 7. LHDG Assessment

Item	Design Element	Comment	Compliance	
1.	Dwelling (SOU) Access			
	Silver Level	Access to the units is governed by the BCA2019 and is suitably proposed from the public corridors.	N/A	
2.	Dwelling (SOU) Entrance			
	Silver Level  (a) The dwelling should provide an entrance door with –  (i) A minimum clear opening width of 820mm;  (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.	The dwellings are suitably accessed from the internal public corridors. It is expected that entry door unobstructed opening width can achieve 820mm (or 850mm if adaptable).	CRA – Refer Annexure E	
3.	Internal Doors and Corridors			
	Silver Level  (a) Doorways to rooms on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes should provide:  (i) A minimum clear opening width of 820mm; and  (ii) A level transition and threshold (maximum vertical tolerance of 5mm between abutting surfacers if allowable provided the lip is rounded or bevelled).  (b) Internal corridors/passageways to the doorways referred to in (a) should provide a minimum clear width of 1000mm  Corridor widths should be measured as described in Clause 6.3 of AS 1428.1 – 2009	Level surfaces are to be provided continuously throughout. It is expected that required clearances and widths can be achieved.	CRA – Refer Annexure E	
4.	Toilet			



Item	Design Element	Comment	Compliance
	Silver Level  (a) Dwellings should have a toilet on the ground (or entry) level that provides:  (i) A minimum clear width of 900mm between the walls of the bathroom if located in a separate room; and  (ii) A minimum 1200mm clear circulation space forward of the toilet pan exclusive of the swing of the door.  (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 date. Reinforcement guidelines for walls in bathrooms and toilets are found in element 6.	Toilets are required to be positioned in the corner of the room to facilitate grab rail installation. Clearance in front of the toilet pan is required clear of door swings.	CRA – Refer Annexure E
5.	Bathroom		
	<ul> <li>(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.</li> <li>(b) The shower recess should be located in the corner of the room to enable the installation of grabrails at a future date.</li> <li>For hobless specification please see Australian Standard AS3740-3.6.</li> <li>Reinforcement guidelines for walls in bathrooms and toilets are found in element 6.</li> </ul>	It is expected that shower design and installation can meet the requirements of this Clause.	CRA – Refer Annexure E
6.	Reinforcement		
	Silver Level  (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.	Wall reinforcing to be installed into wall, ensuring it can take appropriate loading. Note that the material is required to be non-combustible if the wall is fire resisting.	CRA – Refer Annexure E



Item	Design Element	Comment	Compliance
	<ul><li>(b) The walls around the toilet are to be reinforced by installing:</li><li>(i) Noggings with a thickness of at least 25mm; or</li><li>(ii) Sheeting with a thickness of at least 12mm.</li></ul>		
7.	Stairways		
	-	The requirements for the stairways are governed by the requirements of the BCA2019	N/A





# Annexure D – Adaptable Housing

Table 8. Class C

Item	Room/Item	Clause	Comment	Compliance		
Drawing	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.	DNC		
			No street parking will be provided.			
3.	A continuous accessible path of travel from street frontage and vehicle parking to entry complying with	3.3.2	An accessway (walkways and ramps) from the street frontage will be provided.	Complies		
	AS1428.1		Access will be provided from the basement carpark to all SOU's via a shared lift.			
			-			
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.	CRA – Refer Annexure E		
			1			
	Carparking space or garage min area 6.0x3.8m	3.7.2	There are no proposed adaptable car spaces provided within basement car park.	CRA – Refer Annexure E		
14.			The sizing of the spaces for the adaptable units are to be not less than 3800mm width x 6000mm length			
			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.			
20.	Accessible entry	4.3.1	The entry door to the adaptable unit is to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1.	CRA – Refer Annexure E		



Item	Room/Item	Clause	Comment	Compliance
			Circulation spaces at front doorways to be increased to achieve side and front wheelchair approach, compliant with AS128.1.	
			Latch side clearance of the front door will require to be increase to 510mm (currently shows 450mm)	
21.	Accessible entry to be level (i.e. max. 1:40 slope)	4.3.2	Units are accessed from an external level common walkway.	Complies
23.	Threshold to be low-level	4.3.2	Public corridors assumed to be flat.	Complies
24.	Landing to enable wheelchair manoeuvrability	4.3.2	The SOU's entry doors are internal to the building.	Complies
25.	Accessible entry door to have 850mm minimum clearance	4.3.1	The entry door to the adaptable unit is to have a minimum clear opening of 850mm and comply with door circulation spaces under AS1428.1.	CRA – Refer Annexure E
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 E
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.	CRA – Refer Annexure E
33.	Internal corridors width of 1000mm min.	4.3.7	Internal corridors within the unit are to have a minimum width of 1000mm and circulation space at doorways to be in compliance with AS1428.1.	CRA – Refer Annexure E
34.	Provision for compliance with AS1428.1 for door approaches	4.3.7	Circulation spaces at doorways within the unit are to comply with AS1428.1-2009.	CRA – Refer Annexure E
	1		1	



Item	Room/Item	Clause	Comment	Compliance
36.	Provision for circulation space of 2250mm min. diameter	4.7.1	A circulation space of min. 2250mm diameter is to be made available in the living areas after the furniture has been placed.  Furniture is not shown, however it is assumed that encroaching furniture over the circulation space can be easily changed/removed as it is not fixed.	CRA – Refer Annexure E
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 E
41.	Potential illumination level min. 300Lux	4.1.0	Lighting to comply at construction stage.	CRA – Refer Annexure E
42.	Minimum width 2.7m (1550mm clear between benches)	4.5.2	1550mm min. clearance to be provided in front of sink and appliances.	CRA – Refer Annexure E
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	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure E
45.	Refrigerator adjacent to work surface	4.5.5	To be updated post adaption, with no works required at this stage.	CRA – Refer Annexure E
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 E
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 E



Item	Room/Item	Clause	Comment	Compliance
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 E
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 E
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 E
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 E
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.	CRA – Refer Annexure E
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.	CRA – Refer Annexure E
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 E
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 E
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 E



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	There are no details of proposed adaptable bedrooms at this stage.  The bedroom needs to be capable to cater a queen size bed with a turning bay at base overlapping with circulation space at doorway, and clearances around the bed of 1000mm min.  Note: Queen size bed is 1520mm W x 2030mm L.  Note: Turning bays at bed base according to AS4299:1995 or on the side of the bed closest to the door approach (in the direction of travel) according to LHDG 2015 (Design Element 11) are considered suitable – see figures below.  AS4299:1995 (AS1428.2:1992)  LHDG 2015	CRA – Refer Annexure E
Bathroom				
75.	Provision for bathroom area to comply with AS1428.1	4.4.1	There are no details of proposed adaptable bathrooms at this stage.  The bathroom + shower area is to comply with Clause 15 of AS1428.1-2009 (2350x2750mm).	CRA – Refer Annexure E



Item	Room/Item	Clause	Comment	Compliance
			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.	
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 E
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 E
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 E
79.	Recessed soap holder	4.4.4(f)	Soap holder to be recessed.	CRA – Refer Annexure E
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 E
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 E
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 E
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 E
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 E



Item	Room/Item	Clause	Comment	Compliance		
90.	Double GPO beside mirror	4.4.4(d)	Double GPO to be provided beside mirror.	CRA – Refer Annexure E		
Toilet						
92.	Provision of either "visitable toilet" or accessible toilet	4.4.3	The adaptable unit is to be provided at pre-adaptation stage with a "visitable" toilet at entry level with 900x1250mm clearance in front of WC pan (door not to encroach).  To be indicated on the pre-adaption plans.	Complies		
93.	Provision to comply with AS1428.1	4.4.1	The bathroom area is to comply with Clause 15 of AS1428.1-2009 in relation to dimensions of fixtures, location and circulation spaces.  To be shown in the post-adaptation plans.	CRA – Refer Annexure E		
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.  To be shown in the post-adaptation plans.	CRA – Refer Annexure E		
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 E		
96.	Slip resistant floor surf ace (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 E		
Laundry	Laundry					
98.	Circulation at doors to comply with AS 1428.1	4.8	Provisioning to be provided. To be shown in the post-adaptation plans.	CRA – Refer Annexure E		
99.	Provision for adequate circulation space in front of or beside appliances (min. 1550x1550mm)	4.8	Clear space provided in front	CRA – Refer Annexure E		



Item	Room/Item	Clause	Comment	Compliance
100.	Provision for automatic washing machine	4.8(e)	Provisioning to be provided. To be shown in the post-adaptation plans.	CRA – Refer Annexure E
102.	Where clothes line is provided, an accessible path of travel to this	4.8(a)	No clothes line due to dryer space	N/A
105.	Double GPO	4.8(g)	Double GPO to be provided	CRA – Refer Annexure E
108.	Slip-resistant floor surface	4.9.1	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 E
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 E





#### **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.
- 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.

