ACCESS ASSESSMENT REPORT

Project	25- 1000A
Address	19-21 The Corso, Manly NSW 2095
Date	7/02/2025
Report No.	25-1000A, Rev 00
Prepared for	Forma Projects NSW Pty Ltd
Prepared by	Xcert Pty Ltd

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REPORT REGISTER

REVISION	DATE	STATUS	WRITTEN
25-1000a – Rev 00	7/02/2025	FOR DA	FC

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EXECUTIVE SUMMARY & INTRODUCTION

This report provides an accessibility design assessment for fit development located on the Ground Floor of 19-21 The Corso, Manly NSW 2095

The purpose of this report is to identify the compliance status of the design with the Deemed to Satisfy (DtS) requirements of the National Construction Code (NCC) 2022, as are contained within Part D4 and Clause E3D7 and E3D8; and F4D5 - F4D7 of the Code.

A review and commentary are provided, which includes all appropriate technical assessment results and commentary and concludes that, whilst some compliance departures do exist in the current design, such can be remedied in all instances to achieve compliance with the NCC.

BASIS & PURPOSE OF REPORT

This assessment is based upon.

- The Building Code of Australia (BCA) 2022
- The Guide to the BCA 2022
- AS1428.1-2009 - Design for Access and Mobility – Part 1
- AS1428.4.1-2009 - Design for Access and Mobility – Part 4.1.
- AS/NZS 2890.6:2009 - Off-street parking for people with disabilities
- The Architectural plans:

Drawing Number	Revision	Dated	Drawing Title	Prepared By
S4.55-100	01	8/01/2025	PROPOSED GROUND FLOOR PLAN	SRH Architecture Pty Ltd

The purpose of this report is to identify the compliance status of the design with the relevant accessibility related DtS requirements of the NCC 22022, Part D4 and Clause E3D7 and E3D8; and F4D5 - F4D7 of the NCC.

BCA CLASSIFICATION

The below detail is provided in respect of a desktop review of the building under the NCC 2022 in respect to the compliance assessment.

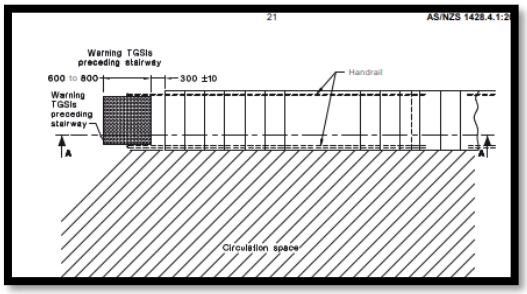
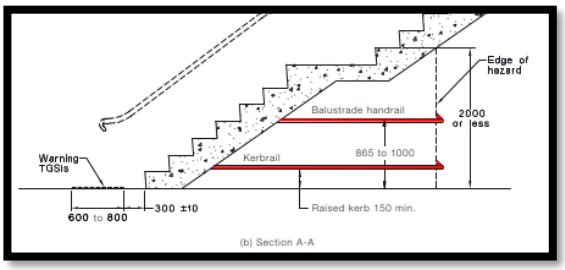
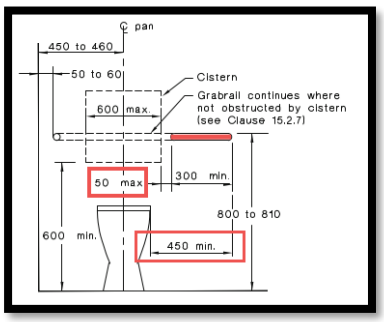
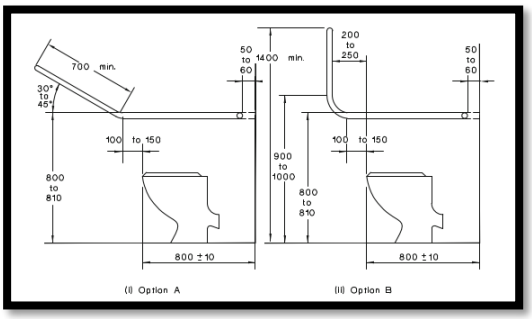
BCA Building Classifications:	Class 2 Class 6

RECOMMENDED PERFORMANCE SOLUTIONS

Clause	Recommendation
D4D2	Reduced Circulation Space via the inclusion of auto open door to the retail and building door.
D4D2	Access to and within all areas used by occupants mainly the retail to be provided with portable ramp.
D4D2	Location of push button
F4D5	Wash basin to encroach pan circulation space more then 100mm

RECOMMENDATIONS

Clause	Recommendation
D4D2 General building access requirements	1. **Clearance** - A minimum 1.0m path of travel is required to be provided as a continuous accessible path of travel. This includes between handrails. Non-Fire isolated stair to have 1200mm width to permit 1m between 2-sided handrail 2. **Continuous Accessible Path of Travel** is required to be provided from any accessible car parking space to the lift. A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediment. 3. **Clause 7.1** - A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability. **Clause 7.2** - Abutment of surfaces shall have a smooth transition. Design transition shall be 0 mm. Clarify the transition between the floor finishes. 4. **Slip resistance** - A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability. Slip resistance test report to be obtained and provided at CC Stage. **Landings** - The length of landings at walkways (up to a gradient of 1 in 33) shall comply with one of the following: Where there is no change in direction, the length shall be not less than 1200 mm, where there is a change of direction not exceeding 90°, the landing shall be not less than 1500 mm, for a 180° turn, the landing shall be a minimum 1540mm x 2070mm. 5. **Circulation space** - Circulation spaces shall be provided at every doorway, gate, or similar entry way, **on a continuous accessible path of travel**. Circulation spaces at doorways shall have a gradient and crossfall not steeper than 1 in 40. Circulation spaces at doorways/gates shall have a gradient and crossfall not steeper than 1 in 40. ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***
D4D3 Access to buildings	6. Accessway must be provided to a building required to be accessible—from the main points of a pedestrian entry at the allotment boundary. ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***
D4D4 Parts of buildings to be accessible	7. Suitable passing and turning spaces are to be provided in the building to comply with this clause and AS1428.1-2009. Specifically, the following needs attention: End of corridor before the ramp requires 2070mmx1540mm. Corridors to levels have a minimum 1,540mm wide by 2,070mm long space within 2m of the end of the corridor to permit wheelchairs users to do a 180o turn. ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***
D4D4 Parts of buildings to be accessible	8. Non-fire isolated stairs requrie 2x sided handrails. 9. Handrails require 1m clearance between them. Allowances made for this. 10. Stairs provided with landings 11. Tread or landing surface require Wet surface conditions P4 or R11. 12. Top handrail to extend 300mm and then terminate. 13. Bottom of stairs to be provided with one tread depth + 300mm extension + termination. ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***
D4D9 Tactile indicators	Provide tactile ground surfaced indicators complying with AS/NZS 1428.4.1-2009. In the absence of a suitable barrier—an overhead obstruction less than 2 m above floor level, other than a doorway.

	  Where the distance of the landing is less than 3000 mm to the nearest nosing edge, the warning indicators shall be over a distance of 300–400mm. ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***
F4D5 Accessible sanitary facilities	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- 2009. Shower fittings are to all comply with the requirements of AS1428.1. ***Details demonstrate compliance to be provided at CC Stage.***
F4D6 Accessible unisex sanitary compartments	  ***Details demonstrate compliance to be provided at CC Stage. Compliance readily achievable via design and Performance Solutions at CC Solution.***

ACCESS ASSESSMENT

- The following table details the BCA compliance of the assessed design. The following assessment will provide an overview of compliance with the BCA and identify issues that require attention.
- All Deemed-to-Satisfy clauses that are applicable to the subject building have been referred to below, including a comment adjacent to each clause of the proposal's ability to satisfy each respective clause. The abbreviations outlined below have been used in the following tables:

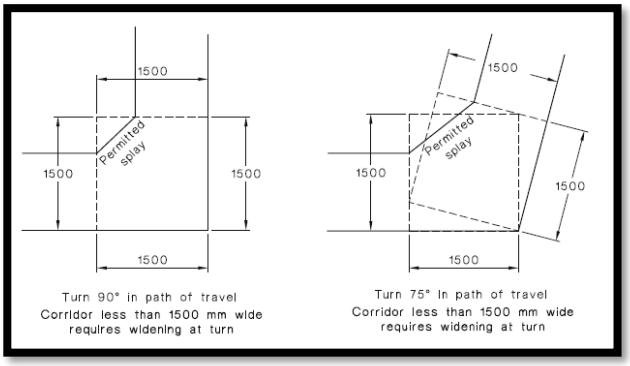
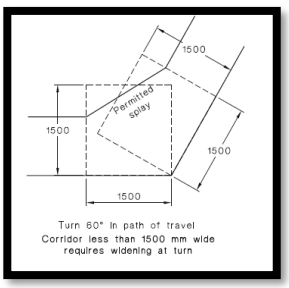
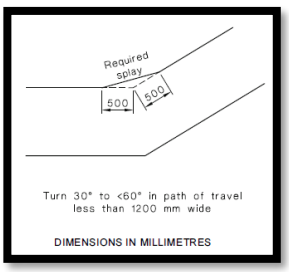
N/A or Informational	The Deemed-to-Satisfy clause does not apply to the subject Building or is informational.
Complies	The relevant provisions of the Deemed-to-Satisfy clause appear to have been generally satisfied.
DNC	Does Not Comply.
CR 'Compliance Required'	It is considered that there was not sufficient information included in the documentation to accurately determine strict compliance with the individual clause requirements. 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.

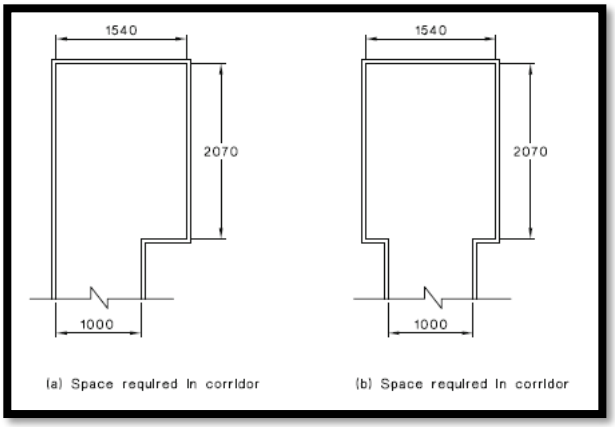
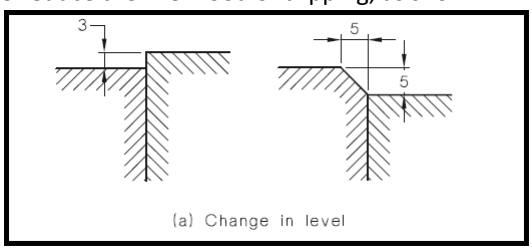
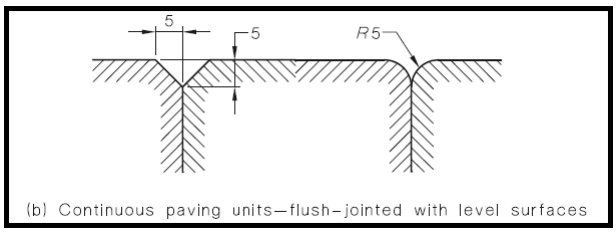
CLAUSE	STATUS	COMMENTS

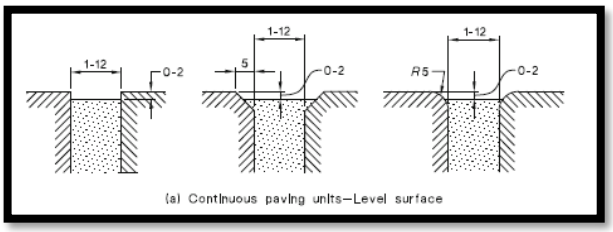
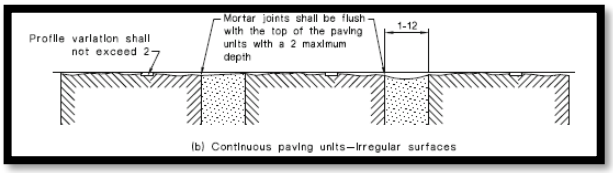
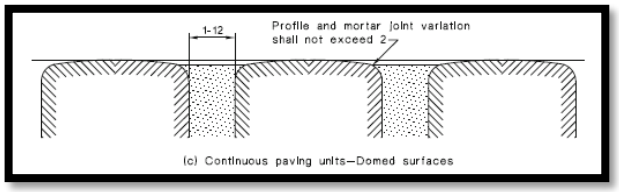
PART D4 - ACCESS FOR PEOPLE WITH A DISABILITIES

D4D2 - General building access requirements

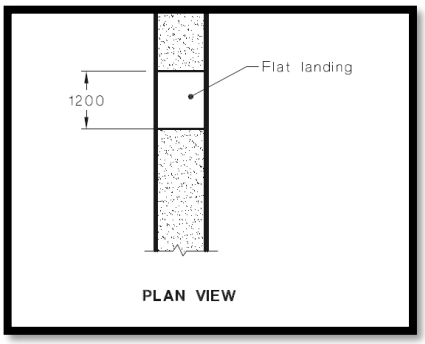
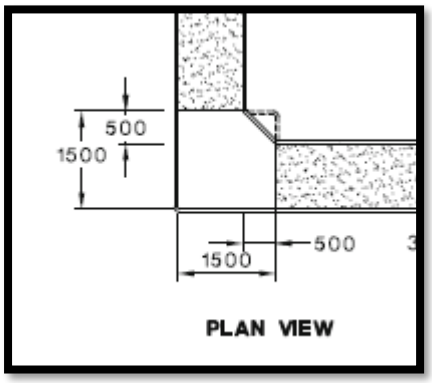
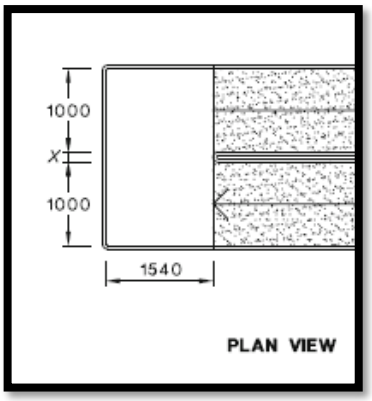
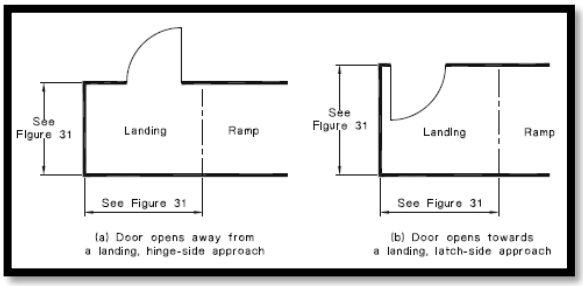
[2019: D3.1, Table D3.1] To specify when access for people with a disability must be provided to buildings and parts of buildings.	CR	1. Buildings and parts of buildings must be accessible as required by this clause, unless exempted by D4D5. 2. **Access requirements for a Class 1b building** are as follows: 3. .... 4. **For a Class 2 building**, common areas are to be accessible as follows: 5. **For Class 3 building**, access requirements are as follows: 6. **For Class 5, 6, 7b, 8 and 9a buildings,** access must be provided to and within all areas normally used by the occupants. 7. **For a Class 7a building,** access must be provided to and within any level containing accessible carparking spaces.
	CR	**<u>Continuous Accessible Path of Travel/ 1.0m clearance</u>** • A minimum 1.0m path of travel is required to be provided as a continuous accessible path of travel. • Continuous Accessible Path of Travel is required to be provided from any accessible car parking space to the lift. • A continuous accessible path of travel shall not include a step, stairway, turnstile, revolving door, escalator, moving walk or other impediment. • For example, all walkways and continuous accessible paths of travel throughout the development, including external walkways and communal open space, to comply with AS 1428.4.1 – 2009, including Part 13.

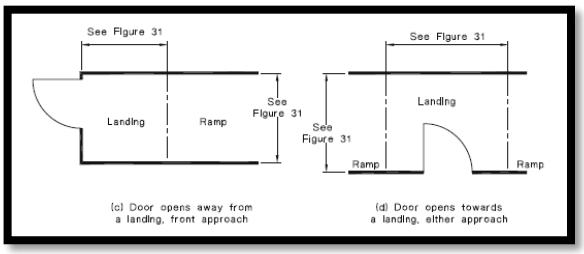
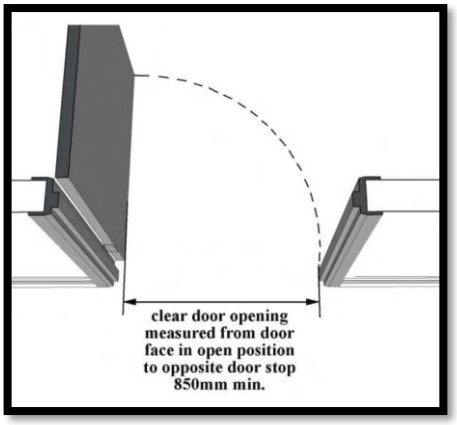
CLAUSE	STATUS	COMMENTS
		Heights of a continuous accessible path of travel The minimum unobstructed height of a continuous accessible path of travel shall be 2000 mm or 1980 mm at doorways (see Figure 2). **Width of a continuous accessible path of travel** Unless otherwise specified (such as at doors, curved ramps and similar), the minimum unobstructed width (see Figure 2) of a continuous accessible path of travel shall be 1000 mm and the following shall not intrude into the minimum unobstructed width of a continuous accessible path of travel: • Fixtures and fittings such as lights, awnings, windows that, when open, intrude into the circulation space, telephones, skirtings, and similar objects. • Essential fixtures and fittings such as fire hose reels, fire extinguishers and switchboards. • Door handles less than 900 mm above the finished floor level. **Accessible Car Parking Space** A continuous Accessible Path of Travel is required to be provided from any accessible car parking space to the lift. **Left & Right Turns** **Cl. 6.5 Circulation space for wheelchair turn.** The space required for a wheelchair to make a 60° to 90° turn shall have a gradient no steeper than 1 in 40 and shall be not less than 1500 mm wide and 1500 mm long in the direction of travel. The space may be splayed across the internal corner as shown in Figure 4.    **Wheelchair Turn**

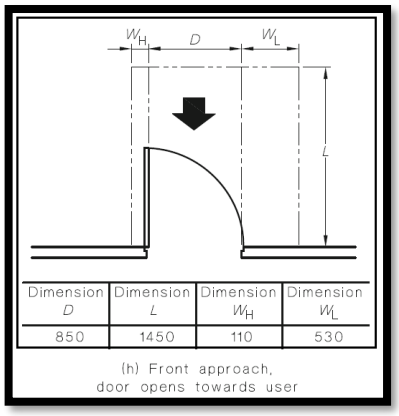
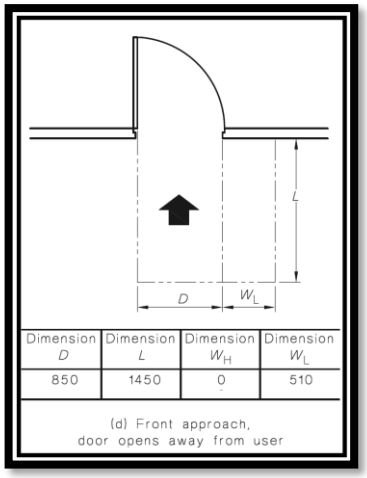
CLAUSE	STATUS	COMMENTS
		The space required for a wheelchair to make a >90° to 180° turn shall be not less than 2070 mm in the direction of travel and not less than 1540 mm wide, as shown in Figure 5.  **<u>FLOOR OR GROUND SURFACES ON CONTINUOUS ACCESSIBLE PATHS OF TRAVEL AND CIRCULATION SPACES</u>** A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability. **<u>Construction tolerances for abutment of surfaces</u>** • **Clause 7.1** - A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with an ambulant or sensory disability. • **Clause 7.2** - Abutment of surfaces shall have a smooth transition. Design transition shall be 0 mm. Construction tolerances shall be as follows: a. 0 ±3 mm vertical, as shown in Figure 6(a). b. 0 ±5 mm, provided the edges have a bevelled or rounded edge to reduce the likelihood of tripping, as shown in Figure 6(b).  

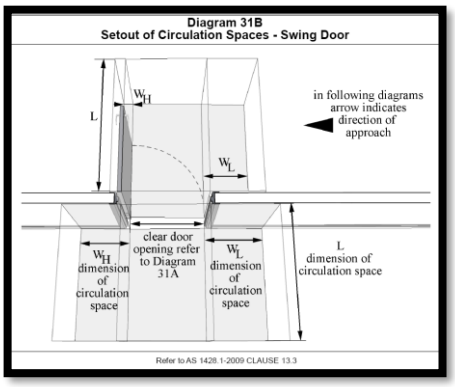
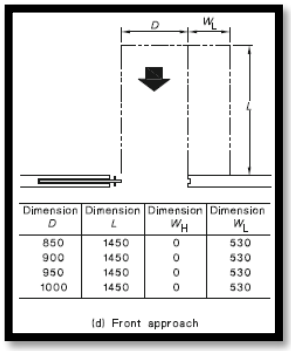
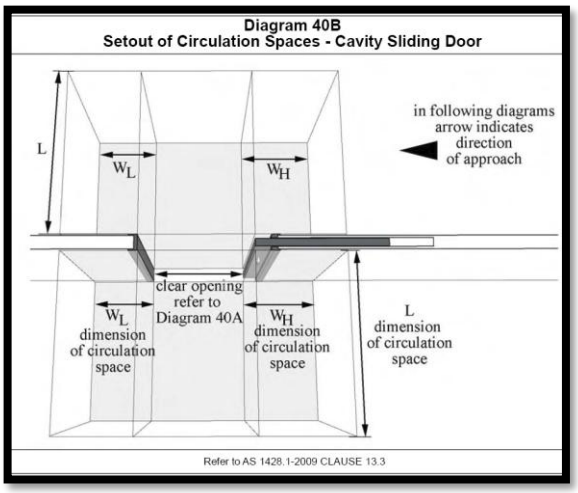
CLAUSE	STATUS	COMMENTS
		 (a) Continuous paving units—Level surface  (b) Continuous paving units—Irregular surfaces  (c) Continuous paving units—Domed surfaces When a vertical change of not more than 5 mm occurs between the abutment of two surfaces along a continuous accessible path of travel, such change in surface level shall comply with the tolerances given in Clause 7.2. **Recessed matting** Matting recessed within a continuous accessible path of travel— a) where of metal and bristle type construction or similar, its surface shall be no more 3 mm if vertical or 5 mm if rounded or bevelled, above or below the surrounding surface; and b) where of a mat or carpet type material shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3 mm if vertical or 5 mm if rounded or bevelled. **Grates** Grates shall comply with the following: a) Circular openings shall be not greater than 13 mm in diameter. b) Slotted openings shall be not greater than 13 mm wide and be oriented so that the long dimension is transverse to the dominant direction of travel. NOTE: Where slotted openings are less than 8 mm, the length of the slots may continue across the width of paths of travel. **WALKWAYS, RAMPS AND LANDINGS** Walkways, ramps, and landings that are provided on a continuous accessible path of travel shall be as follows: a) Sharp transitions shall be provided between the planes of landings and ramps, as shown in Figure 14. b) Landings shall be provided at all changes in direction in accordance with Clause 10.8. c) Landing or circulation space shall be provided at every doorway, gate, or similar opening.

CLAUSE	STATUS	COMMENTS
		d) For walkways and landings having gradients in the direction of travel shallower than 1 in 33, a camber or crossfall shall be provided for shedding of water and shall be no steeper than 1 in 40, except that bitumen surfaces shall have a camber or crossfall no steeper than 1 in 33. NOTE: For requirements for ground surfaces, see Clause 7. **<u>Walkways</u>** Walkways shall comply with the following: a) The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following is provided: (i) Kerb in accordance with Figure 18. (ii) Kerb rail and handrail in accordance with Figure 19. (iii) A wall not less than 450 mm in height. b) Walkways shall be provided with landings, as specified in Clause 10.8, at intervals not exceeding the following: (i) For walkway gradients of 1 in 33, at intervals no greater than 25 m. (ii) For walkway gradients of 1 in 20, at intervals no greater than 15 m. (iii) For walkway gradients between 1 in 20 to 1 in 33, at intervals that shall be obtained by linear interpolation. For walkways shallower than 1 in 33, no landings are required. The intervals specified above may be increased by 30% where at least one side of a walkway is bounded by— A) a kerb or kerb rail as specified in Clause 10.3(j) and a handrail as specified in Clause 12; or B) a wall and a handrail as specified in Clause 12. **<u>Landings</u>** The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following: Where there is no change in direction, the length shall be not less than 1200 mm, as shown in Figure 25(A). The length of landings at walkways (up to a gradient of 1 in 33) and ramps shall comply with one of the following: a) Where there is no change in direction, the length shall be not less than 1200 mm, as shown in Figure 25(A).

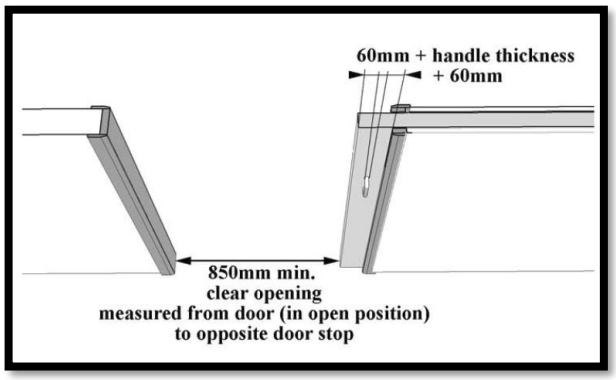
CLAUSE	STATUS	COMMENTS
		 b) Where there is a change of direction not exceeding 90°, the landing shall be not less than 1500 mm. The internal corner shall be truncated for a minimum of 500 mm in both directions, as shown in Figure 25(B).  c) For a 180° turn, the landing shall be as shown in Figure 25(C).  **DOORWAYS AT LANDINGS** 

CLAUSE	STATUS	COMMENTS
		 **Slip-resistant floor surface/s** BCA 2022 does not directly specify slip-resistance classification(s) for all accessible paths of travel; however, we highlight the need under AS1428.1-2009 for all accessible paths of travel to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant. ***** **DOORWAYS, DOORS AND CIRCULATION SPACE AT DOORWAYS** **Luminance contrast** All doorways shall have a minimum luminance contrast of 30% provided between— a) door leaf and door jamb. b) door leaf and adjacent wall. c) architrave and wall. d) door leaf and architrave; or e) door jamb and adjacent wall. The minimum width of the area of luminance contrast shall be 50 mm. **Clear opening of a doorway** The minimum clear opening of a doorway on a continuous accessible path of travel shall be 850mm.  **Fire Isolated Doors** • Fire Isolated Stairs are to be provided with 850mm clear doors to enable persons using mobility aids to manoeuvre into the landing for resting along a path of travel. **Circulation Space**

CLAUSE	STATUS	COMMENTS
		• Circulation spaces shall be provided at every doorway, gate, or similar entry way, on a continuous accessible path of travel. • Circulation spaces at doorways shall have a gradient and crossfall not steeper than 1 in 40. • Doorway circulation spaces shall be used in combination to allow access through doorways in both directions, as shown in Figures 31 and 32. • The dimensions shall also apply in mirror image configurations. Where clear doorway openings are intermediate to those shown in Figures 31 and 32 then the required circulation spaces shall be interpolated. • Ensure columns do not obstruct the circulation space required to be provided. • Bi-Fold Doors are not compliance accessible Doorways. Examples: Doorway Circulation Space Common approaches  Dimension D: 850; Dimension L: 1450; Dimension W_H: 110; Dimension W_L: 530 (h) Front approach, door opens towards user  Dimension D: 850; Dimension L: 1450; Dimension W_H: 0; Dimension W_L: 510 (d) Front approach, door opens away from user

CLAUSE	STATUS	COMMENTS
		 **<u>Sliding Doors</u>** The clear circulation space at doorways with sliding doors is based on the clear opening width of the doorway (D). The clear circulation space shall be not less than the dimensions specified in the tables in Figure 32 for the appropriate clear opening width.  Dimension D / Dimension L / Dimension W_H / Dimension W_L 850 / 1450 / 0 / 530 900 / 1450 / 0 / 530 950 / 1450 / 0 / 530 1000 / 1450 / 0 / 530 (d) Front approach 

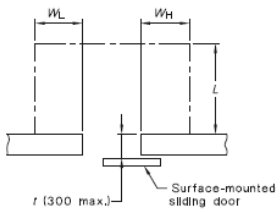
CLAUSE	STATUS	COMMENTS



Cavity Sliding Door - Where a sliding door is within the wall cavity, the circulation space at the doorway shall be not less than that given in the tables of Figure 32 for the appropriate clear opening width (D).

Surface-mounted doors - Where a sliding door is surface-mounted, the circulation space at the doorway shall be as follows:

- The circulation space at the door face shall be not less than that given in tables Figure 32.
- The circulation space opposite the door face shall be increased from that given in tables of Figure 32, by the values given in Table of Figure 33. When a surface-mounted sliding door is automatic, these increases do not apply.



Door approach	Increase from Figure 32
Figure 32(d)	Add dimensions t to dimensions W_L and W_H
Figure 32(a), 32(b), 32(c)	Add dimensions t to dimensions L, W_L and W_H

t=wall thickness to the face of the door

DIMENSIONS IN MILLIMETRES

NOTE: See Clause 13.2 for clear openings of doorways.

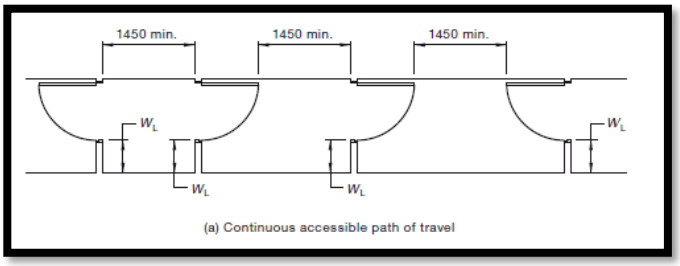
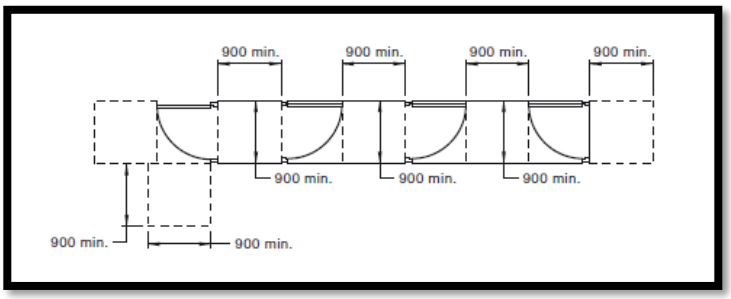
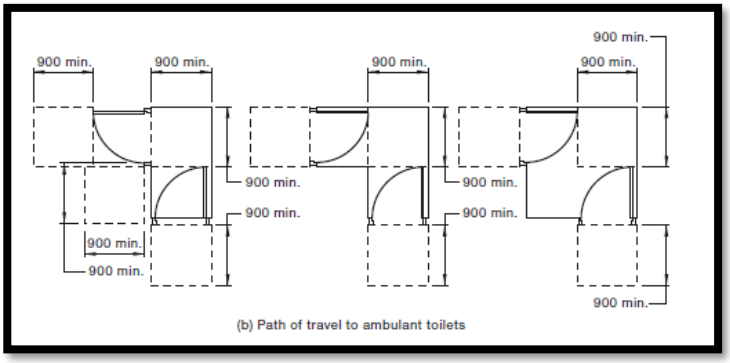
FIGURE 33 CALCULATING DIMENSIONS OF THE CIRCULATION SPACE OPPOSITE THE DOOR FACE WHERE A SLIDING DOOR IS SURFACE-MOUNTED

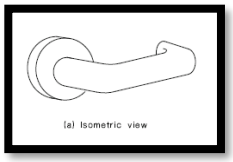
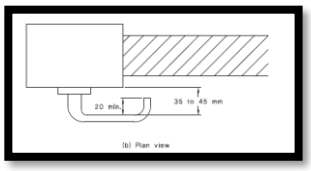
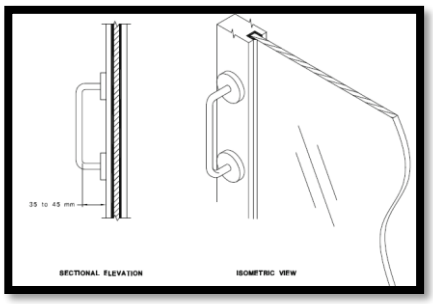
<u>Power operated doors</u>

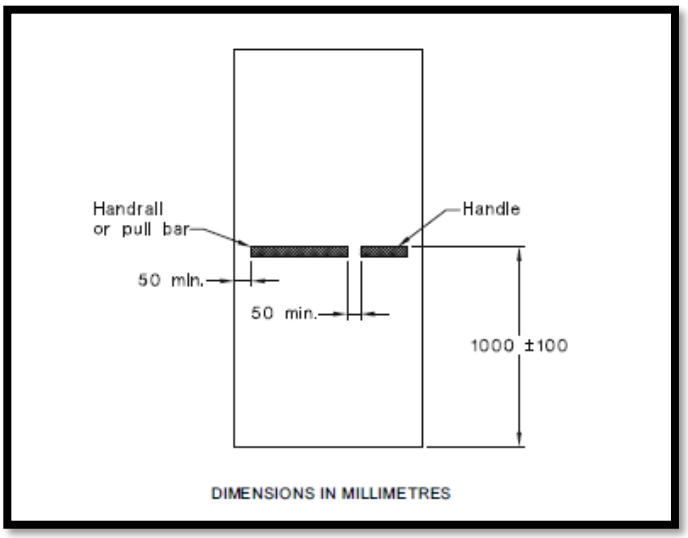
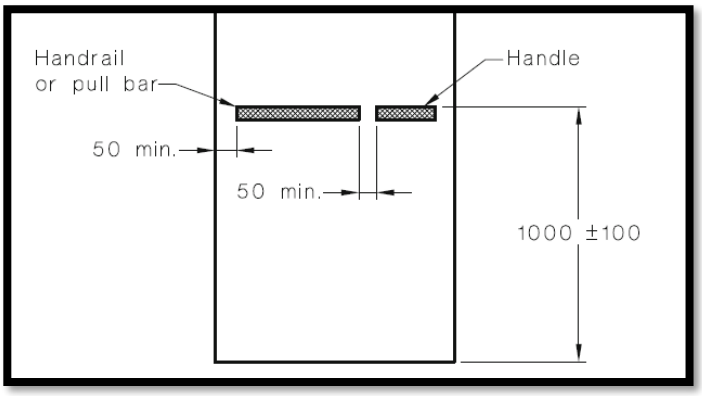
To permit a wheelchair to turn through a door from a side-on approach, dimension WL or WH are required on the approach side only. Where a sliding door is power operated, for a front on approach the WL and WH dimensions do not apply.

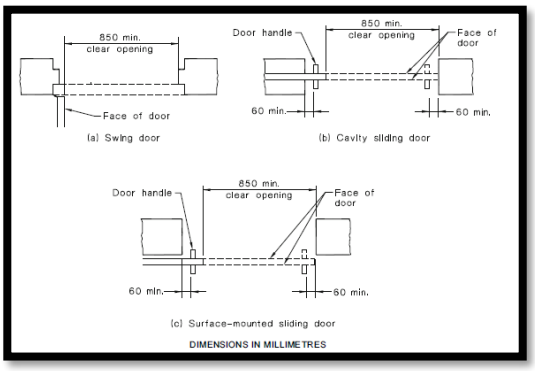
NOTE: For location of manual controls for power operated doors, see Clause 13.5.3.

<u>Distance between successive doorways in passages in an accessible</u>

CLAUSE	STATUS	COMMENTS
		<u>path of travel</u> The distance between doorways in vestibules, air locks and other similarly enclosed spaces shall be not less than 1450 mm. Where the doors encroach into space, the distance shall be not less than 1450 mm plus the door leaf width, as shown in Figure 34(a), and shall comply with Figure 31 and 32 as applicable. The distances between doorways in vestibules and air locks on a path of travel to ambulant toilets shall be in accordance with Figure 34(B).  (a) Continuous accessible path of travel   (b) Path of travel to ambulant toilets ***** **<u>Door Controls</u>** Door handles and related hardware and accessories shall comply with the following: a) The door handle and related hardware shall be of the type that allows the door to be unlocked and opened with one hand. The handle shall be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch. NOTES: (i) Figure 35(A) shows an example of a suitable hinged door handle.

CLAUSE	STATUS	COMMENTS
		  (ii) Figure 35(B) shows an example of a suitable door handle for sliding doors.  (iii) Door handles of 'D' lever type provide an adequate grip for people with hand impairments. b) The clearance between the handle and the back plate or door face at the centre grip section of the handle shall be not less than 35 mm and not more than 45 mm. c) 'D' type handles shall be provided on sliding doors. d) Where snibs are installed, they shall have a lever handle of a minimum length of 45 mm from the centre of the spindle. e) For doors other than fire doors and smoke doors where a door closer is fitted, the force required at the door handle to operate the door shall not exceed the following: (i) To initially open the door..... 20 N (ii) To swing or slide the door .....20 N. (iii) To hold the door open between 60° and 90°....20 N. f) Where an outward opening door is not self-closing, a horizontal handrail or pull bar shall be fixed on the closing face of a side-hung door, as shown in Figure 36.

CLAUSE	STATUS	COMMENTS
		 **Location** Except in early childhood centres, swimming pool barriers or similar situations where the location of the opening and locking controls is prescribed by the relevant statutory authority, the location of the controls for doors and gates shall be above a level surface and as follows: a) Controls that need to be grasped or turned shall be not less than 900 mm and not more than 1100 mm above the plane of the finished floor, as shown in Figure 36.  b) Controls that only need to be pushed, such as panic bars on egress routes, shall be not less than 900 mm, and not greater than 1200 mm above the plane of the finished floor. c) Controls that only need to be touched shall be not less than 900 mm, and not greater than 1250 mm above the plane of the finished floor, and not less than 500 mm from an internal corner except as specified in AS 1735.12. d) Handles on sliding doors shall be not less than 60 mm from the door jamb or doorstop when in the open or closed position, as shown in Figure 30.

CLAUSE	STATUS	COMMENTS
		 e) Manual controls to power-operated doors shall be located on the continuous accessible path of travel no closer than 500 mm from an internal corner and between 1000 mm to 2000 mm from the hinged door leaf in any position or clear of a surface-mounted sliding door in the open position. **<u>Power-operated door controls</u>** Push-button controls shall have a minimum dimension of 25 mm diameter and be proud of the surface and shall activate the door before the button becomes level with the surrounding surface.

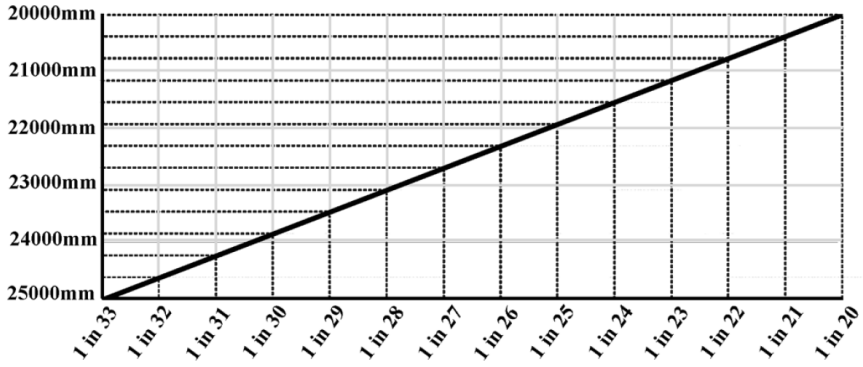
Component	Gradient	Width	Height	Length	Landing spacing		Maximum camber/crossfall	Clause/ Figure
Walkway (straight)	Not steeper than 1 in 20	1000 mm minimum unobstructed	N/A	N/A	**Walkway gradient**	**Landing spacing**	For walkway gradients shallower than 1 in 33; a camber or crossfall of not steeper than 1 in 40; or 1 in 33 where the surface is bitumen. Camber or crossfall not required where the walkway gradient is 1 in 33 or steeper	10.1 and 10.2
					Less than 1 in 33	N/A		
					1 in 33	25 m maximum		
					1 in 20	15 m maximum		
					Between 1 in 33 and 1 in 20	By interpolation		
Walkway (curved)	Not steeper than 1 in 20	1500 mm minimum unobstructed	N/A	N/A	**Walkway gradient**	**Landing spacing**	For walkway gradients shallower than 1 in 33; a camber or crossfall of not steeper than 1 in 40; or 1 in 33 where the surface is bitumen. Camber or crossfall not required where the walkway gradient is 1 in 33 or steeper	10.1 and 10.4
					Less than 1 in 33	N/A		
					1 in 33	25 m maximum		
					1 in 20	15 m maximum		
					Between 1 in 33 and 1 in 20	By interpolation		

CLAUSE	STATUS	COMMENTS

Diagram 8D
Linear Interpolation of Walkway Length Between Landings - Related to Gradient

The increase in walkway lengths between gradient points is 384.6mm

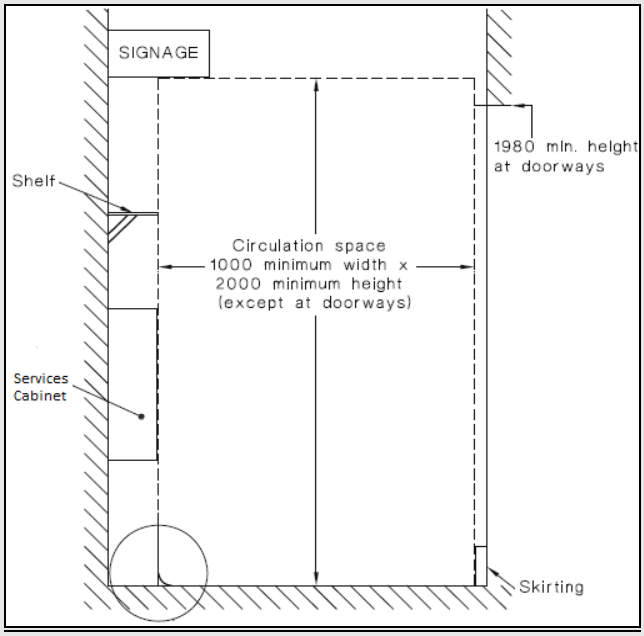
1 in 33 - 25000mm	1 in 29 - 23461.6mm	1 in 25 - 21923.2mm	1 in 21 - 20384.6mm
1 in 32 - 24615.4mm	1 in 28 - 23077.0mm	1 in 24 - 21538.6mm	1 in 20 - 20000mm
1 in 31 - 24230.8mm	1 in 27 - 22692.4mm	1 in 23 - 21154.0mm	
1 in 30 - 23846.2mm	1 in 26 - 22307.8mm	1 in 22 - 20769.4mm	



Refer to AS 1428.1-2009 CLAUSE 10.2(b)(iii)

Continuous accessible path of travel –

All paths of travel shall achieve unobstructed heights and widths in accordance with cl. 6 of AS 1428.1 – see diagram below for detail.



Doorways / Doors –

(i) All doorways shall have a minimum luminance contrast of 30% between –
- door leaf and door jamb.
- door leaf and adjacent wall.
- architrave and wall.
- door leaf and architrave.
- door jamb and adjacent wall.

(ii) The minimum width of the area of luminance contrast shall be 50mm,

CLAUSE	STATUS	COMMENTS

(iii) Door hardware should be generally located between 900-1100mm from the floor and be of lever type with a clearance between the handle and the door face at the centre of the handle being not less than 35mm and not more than 45mm in accordance with AS1428.1-2009,

(iv) Doors shall have a clear opening width of 850mm.

(v) Door handles and related hardware shall be of the type that allows the door to be unlocked and opened with one hand. The handle shall be such that the hand of a person who cannot grip will not slip from the handle during the operation of the latch.

(vi) 'D' type handles shall be provided on sliding doors.

(vii) Any snibs shall have a lever handle of a minimum length of 45 mm from the centre of the spindle.

(viii) For doors (other than fire doors and smoke doors) where a door closer is fitted, the force required at the door handle to operate the door shall not exceed the 20N,

(ix) Where an outward opening door is not self-closing, a horizontal handrail or pull bar shall be fixed on the closing face of a side-hung door,

(x) The location of controls for doors and gates above a level surface shall be provided as per Clause 13.5.3.

(xi) Manual controls for power-operated doors shall be located no closer than 500 mm from an internal corner and between 1000 mm to 2000 mm from the hinged door leaf in any position or clear of a surface-mounted sliding door in the open position.

(xii) Push-button controls shall have a minimum dimension of 25 mm diameter and be proud of the surface and shall activate the door before the button becomes level with the surrounding surface.

<u>Floor or ground surfaces on continuous accessible paths of travel and circulation spaces –</u>

(i) A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with ambulant or sensory disability.

(ii) Abutment of surfaces shall have a smooth transition. Design transition shall be 0mm, however, construction tolerances are as follows –

- 0 ±3mm vertical change in level – see Figure 1
- 0 ±5mm change in level provided the edges have a beveled or rounded edge to reduce the likelihood of tripping – see Figure 2
- Various tolerances for raked joint pavers – see Figure/s 3a - level surfaces, 3b - irregular surfaces & 3c - domed surfaces.

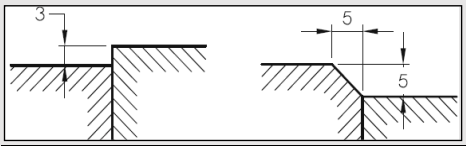


Figure 1

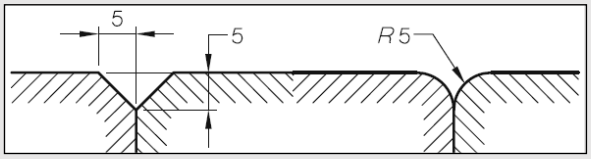


Figure 2

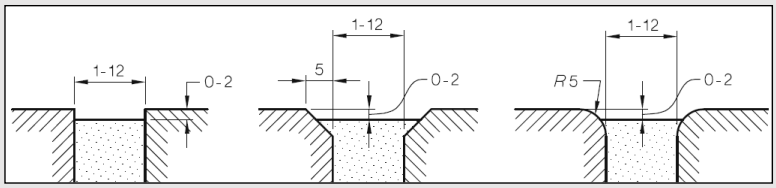


Figure 3a – For continuous paving units – level surfaces

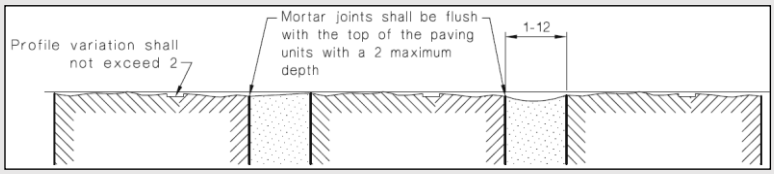


Figure 3b – For continuous paving units – irregular surfaces

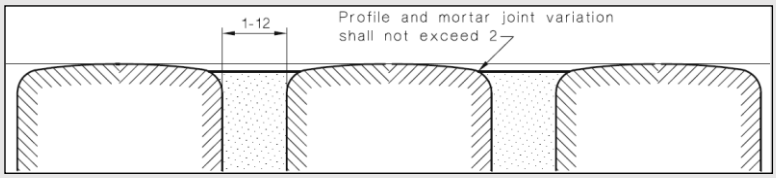


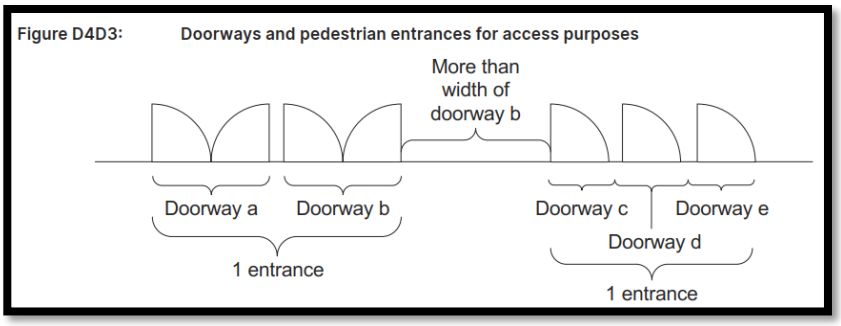
Figure 3c – For continuous paving units – domed surfaces

Where carpets or any soft flexible materials are used on the ground or floor surface –

CLAUSE	STATUS	COMMENTS
		• The pile height or pile thickness shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm. • Exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge, • At the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3mm or a rounded beveled edge no higher than 5mm or above that height a gradient of 1:8 up to a total maximum height of 10mm. Matting recessed within an accessible path of travel – • Where of metal and bristle type construction or similar, its surface shall be no more than 3mm if vertical or 5mm if rounded or beveled, above or below the surrounding surface; and • Where of a mat or carpet type material, shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3mm if vertical or 5mm if rounded or beveled. <u>Switches and Controls –</u> (i) All new switches and controls, other than power points, shall be located not less than 900mm nor more than 1100mm above the finished floor and not less than 500mm from internal corners. (ii) Rocker action and toggle switches shall be provided an accordance with Clause 14.2 in accessible residential sole-occupancy units.

D4D3 - Access to Buildings

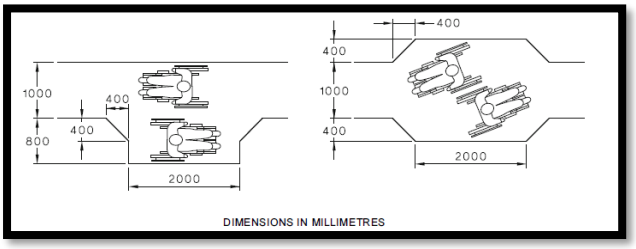
[2019: D3.2] To specify the extent of access for people with a disability that must be provided.	CR	1. Accessway must be provided to a building required to be accessible— a) from the main points of a pedestrian entry at the allotment boundary; and b) from another accessible building connected by a pedestrian link; and c) from any required accessible carparking space on the allotment. 2. In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and— a) through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and b) in a building with a total floor area more than 500m2, a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance, except for pedestrian entrances serving only areas exempted by D4D5. 3. Where a pedestrian entrance required to be accessible has multiple doorways— a) if the pedestrian entrance consists of not more than 3 doorways — not less than 1 of those doorways must be accessible; and b) if a pedestrian entrance consists of more than 3 doorways — not less than 50% of those doorways must be accessible. 4. For the purposes of (3) a) An accessible pedestrian entrance with multiple doorways is considered to be one pedestrian entrance where— (i) all doorways serve the same part or parts of the building; and (ii) The distance between each doorway is not more than the width of the widest doorway at that pedestrian entrance (see Figure D4D3); and b) A doorway is considered to be the clear, unobstructed opening created by the opening of one or more door leaves (see Figure D4D3).

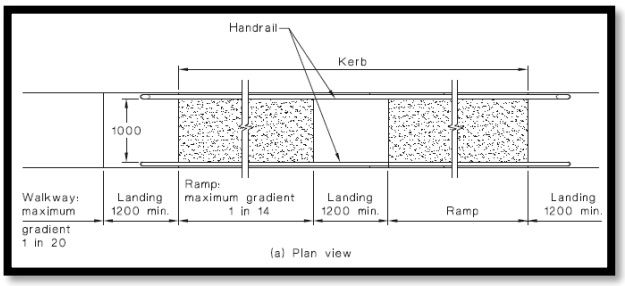
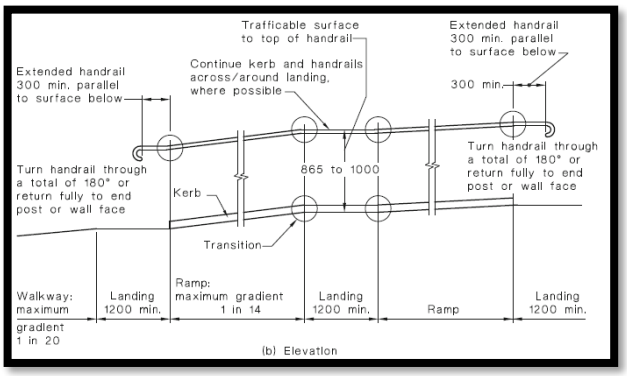
CLAUSE	STATUS	COMMENTS
		5. Where a doorway on an accessway has multiple leaves (except an automatic opening door), one of those leaves must have a clear opening width of not less than 850 mm in accordance with AS 1428.1. 

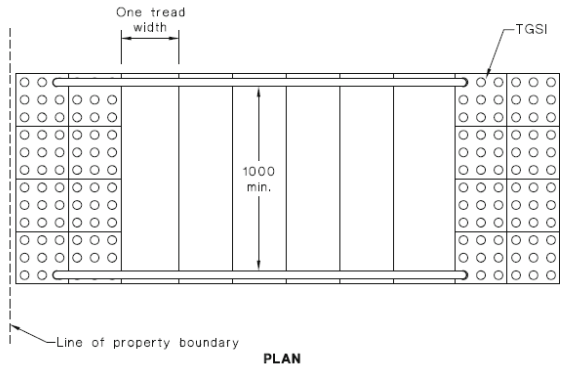
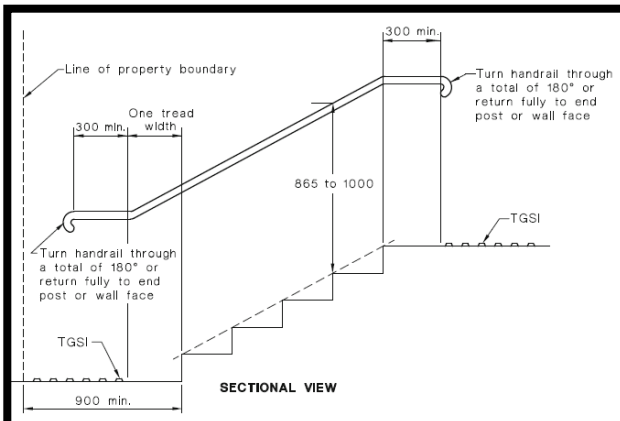
- D3.2(a) requires accessways to be provided to accessible buildings from the main points of a pedestrian entry at the allotment boundary and from any accessible car parking space or accessible associated buildings connected by a pedestrian link.
- In D3.2(b) the principal pedestrian entrance is to be accessible in all cases and not less than 50% of all pedestrian entrances, including the principal pedestrian entrance, are to be accessible. In buildings with a total floor area more than 500 m2, an inaccessible entrance cannot be more than 50 m from an accessible entrance. This ensures that situations where people have to travel an unreasonable distance between entrances are avoided. An entrance that serves only an area exempted by D3.4 need not be accessible.
- The principal pedestrian entrance is required to be accessible in all cases because it would be the most commonly used entrance by all building users. This is particularly important in public buildings where the principal entrance is often used as a focus for events or as a ceremonial entrance, particularly in hotels and theatres.
- Designers should consider the proximity of ramps or lifting devices to stairs or steps at an entrance. People who require a ramp or lifting device at an entrance should not have to travel significantly greater distances to use the entrance than people without a disability.
- Similarly, for convenience, the ramp or lifting device should be located as close as possible to any vehicular drop off point or taxi rank servicing abuilding entrance.
- Where an entrance has multiple doorways, the BCA does not require all of them to be accessible:
- If an entrance doorway is manually operated, the minimum dimensions required to provide access must be provided by the opening of a single leaf, so that a person with a disability only has to negotiate their entry through one door leaf.
- If the doorway is automatically operated, the minimum dimension can be provided using two leaves.

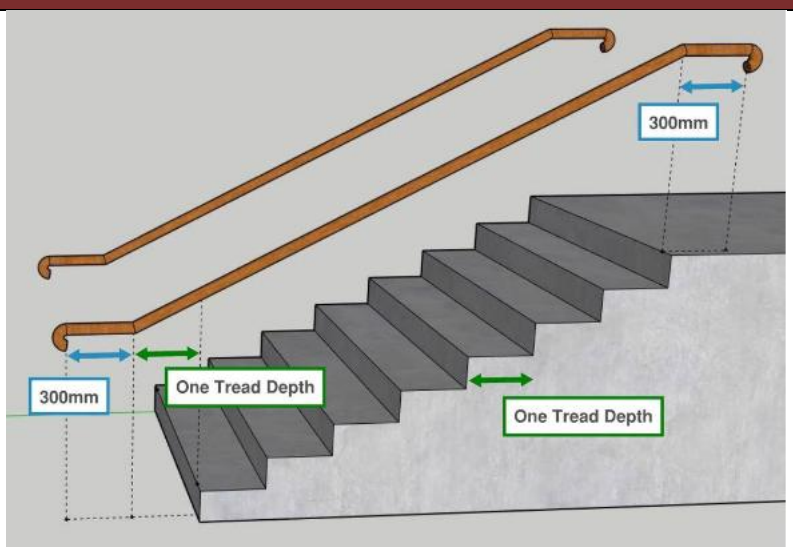
D4D4 - Parts of buildings to be accessible.

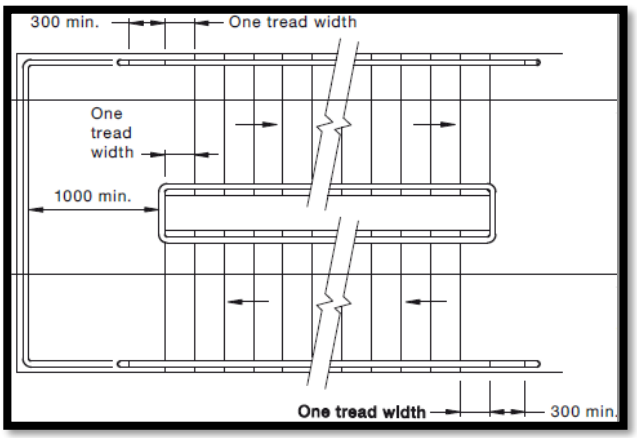
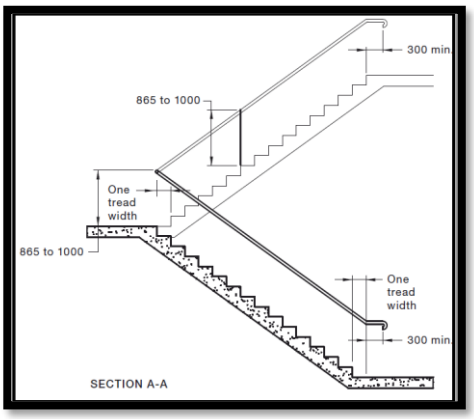
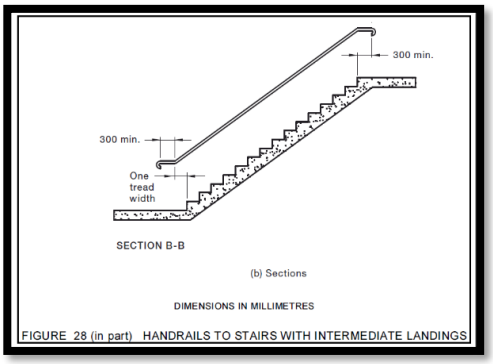
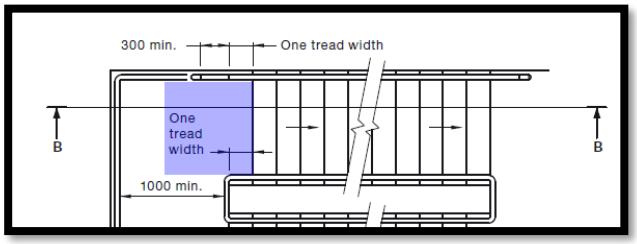
[2019: D3.3] To specify the requirements for accessways within buildings which must be accessible.	CR	In a building required to be accessible— a) Every ramp and stairway, except for ramps and stairways in areas exempted by D4D5, must comply with— (i) for a ramp, except a fire-isolated ramp, clause 10 of AS 1428.1; and (ii) for a stairway, except a fire-isolated stairway, clause 11 of AS 1428.1; and (iii) for a fire-isolated stairway, clause 11.1(f) and (g) of AS 1428.1; and b) every passenger lift must comply with E3D7 and E3D8; and c) accessways must have — (i) passing spaces complying with AS 1428.1 at maximum 20 m intervals on those parts of an accessway where a direct line of sight is not available; and (ii) turning spaces complying with AS 1428.1— A. within 2 m of the end of accessways where it is not possible to continue travelling along the accessway; and

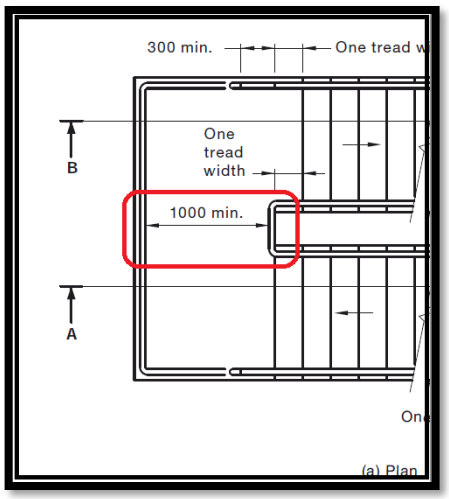
CLAUSE	STATUS	COMMENTS
		B. at maximum 20 m intervals along the accessway; and d) An intersection of accessways satisfies the spatial requirements for a passing and turning space; and e) a passing space may serve as a turning space; and  f) a ramp complying with AS 1428.1 or a passenger lift need not be provided to serve a storey or level other than the entrance storey in a Class 5, 6, 7b or 8 building— (i) containing not more than 3 storeys; and (ii) with a floor area for each storey, excluding the entrance storey, of not more than 200m2; and g) clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm'; and h) The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively. **<u>Ramps</u>** Non-Fire Isolated Ramps & Handrails are to comply with Clause 10 & 12 of AS1428.1 – 2009 including: ❖ maximum gradient exceeding 1900 mm in length shall be 1 in 14. ❖ gradient shall be constant. ❖ Provided with landings (top and bottom) ❖ Handrail complying with Clause 12 on each side of the ramp. ❖ TGSIs shall be installed in accordance with AS 1428.4.1. ❖ handrail shall not protrude into the transverse path of travel. ❖ handrail shall extend to a minimum of 300mm. ❖ Ramps and intermediate landings shall have kerbs or kerb rails on both sides.

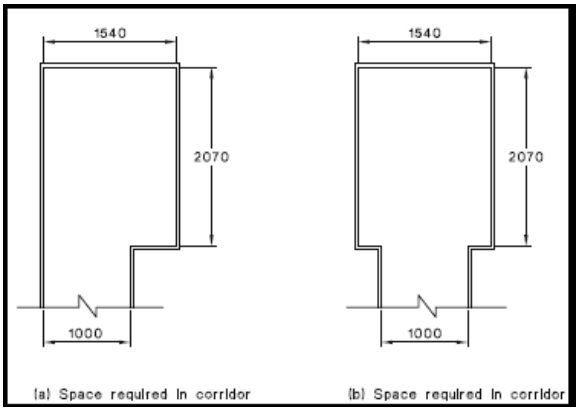
CLAUSE	STATUS	COMMENTS
		  **<u>Non-Fire Isolated Stairs</u>** Stair Handrail is to detail compliance with Clause 11 & 12 of AS28.1 – 2009. Non-Fire Isolated Stairway & Handrails are to comply with Clause 11 & 12 of AS1428.1 – 2009 including: ❖ *Landing* ❖ *Handrails either side.* ❖ *Opaque risers* ❖ *Stair nosings* ❖ *TGSIs shall be installed in accordance with AS 1428.4.1. (Refer to D3.8)* ❖ *One tread width offset* ❖ *Handrail Extension & Terminations at top and bottom.* ❖ *Consistent Handrail & height of 865mm-1000mm max* ❖ *Handrail clearances* ❖ *Handrails and balustrades shall not encroach into required circulation spaces.*

CLAUSE	STATUS	COMMENTS
		12 HANDRAILS The design and construction of handrails shall comply with the following: (a) Handrails and balustrades shall not encroach into required circulation spaces. (b) The cross-section of handrails shall be circular or elliptical, not less than 30 mm or greater than 50 mm in height or width for not less than 270° around the uppermost surface as shown in Figures 29(a) and 29(b). Elliptical handrails shall have the greater dimension in the horizontal axis as shown in Figure 29(b). (c) Exposed edges at ends and corners of handrails shall have a radius of not less than 5 mm. (d) The top of handrails shall be not less than 865 mm nor more than 1000 mm above the nosing of stairway tread or the plane of the finished floor of the walkway, ramp or landing. (e) The height of the top of the handrail, measured in accordance with Item (d), shall be consistent through the ramp (or stairs) and any landings. (f) If a balustrade is required at a height greater than the handrail, both shall be provided. (g) Handrails shall be securely fixed and rigid, and their ends shall be turned through a total of 180°, or to the ground, or returned fully to end post or wall face, as shown in Figures 26(C) and 26(D). (h) The clearance between a handrail and an adjacent wall surface or other obstruction shall be not less than 50 mm. This clearance shall extend above the top of the handrail by not less than 600 mm. (i) Handrails shall have no obstruction to the passage of a hand along the rail, as shown in Figures 29(a) and 29(b). (j) The inside handrail at landings shall always be continuous, as shown in Figure 28(a).  PLAN  SECTIONAL VIEW DIMENSIONS IN MILLIMETRES

CLAUSE	STATUS	COMMENTS
		 **<u>Fire Isolated Stairs</u>** Fire Isolated Stairway & Handrails are to comply with Clause 11.1 (f) & (g) & 12 of AS1428.1 – 2009 including: • Landing • Nosings • Luminance contrast • Handrails and balustrades shall not encroach into required circulation spaces. • Handrail clearances • Handrail Extension & Terminations at top and bottom. • Consistent Handrail & height of 865mm-1000mm max • Clause D2.17(a)(vi) states: in a required exit serving an area required to be accessible, designed and constructed to comply with clause 12 of AS 1428.1. • The FIS are to detail the ends turned through a total of 180°, or to the ground, or returned fully to end post or wall face, as shown in Figures 26(C) and 26(D). • The stairs are to be designed to incorporate one-tread offsets at intermediate landings, see below AS1428.1 extract (Figure 28):

CLAUSE	STATUS	COMMENTS
		   The stairways are to be designed to incorporate one-tread offsets at intermediate landings, see below AS1428.1 extract (Figure 28): 

CLAUSE	STATUS	COMMENTS
		The stairways are to maintain a 1.0m clearance as required by clause 12(a) of AS1428.1 - Handrails and balustrades shall not encroach into required circulation spaces, AND Clause 12(j) of AS1428.1 - The inside handrail at landings shall always be continuous, as shown in Figure 28(a). Allowance is to be made for the Handrails and clearance between them. Compliance readily achievable.  **<u>Passing and Turning Space</u>** passing spaces on accessways to ensure that a person does not have to retrace their journey for an unreasonable distance to pass another person if the accessway is not sufficiently wide for passing to occur at any point. The minimum dimensions for a passing space are contained in AS 1428.1. Space for passing to occur need only be provided where there is not a direct line of sight to the end of the accessway. Turning spaces on accessways to ensure that a person does not have to reverse for an unreasonable distance if they encounter a dead-end or need to retrace their journey. The minimum dimensions for a turning space are contained in AS 1428.1. Turning spaces are required within 2 metres of the end of an accessway if it is not possible to continue to travel along the accessway, and at least every 20 metres along an accessway whether there is a direct line of sight. A passing space may also serve as a turning space and the circulation space required at an intersection of accessways is enough for passing or turning to occur. In this situation a dedicated passing or turning space would not be required at those locations.

CLAUSE	STATUS	COMMENTS
		Clause 6.5.3 >90° to 180° The space required for a wheelchair to make a >90° to 180° turn shall be not less than 2070 mm in the direction of travel and not less than 1540 mm wide, as shown in Figure 5. NOTE: For landing dimensions, see Clause 10.8.  Suitable passing and turning spaces are to be provided in the building to comply with this clause AS1428.1-2009. Corridors to levels to have a minimum 1,540mm wide by 2,070mm long space within 2m of the end of the corridor to permit wheelchairs users to do an 180° turn. **Carpet** The carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shown in Figure 8 of AS 1428.1 do not apply and are replaced with 11 mm, 4 mm and 15 mm respectively.

Clause 10 & 11 Requirements (Ramps & Stairs)

Clause 10.2 – Walkways

Walkways shall comply with the following:

- The floor or ground surface abutting the sides of the walkway shall provide a firm and level surface of a different material to that of the walkway at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm unless one of the following is provided:
  - Kerb in accordance with Figure 18.
  - Kerb rail and handrail in accordance with Figure 19.
  - A wall not less than 450 mm in height.
- Landings at top and bottom and at:
  - 25m intervals or less for 1:33,
  - 15m intervals or less for 1:20,
- For walkways shallower than 1 in 33, no landings are required.

Clause 10.3 – Ramps

Ramps shall comply with the following:

- Max 1:14 gradient for ramps exceeding 1.9m,
- Gradient constant throughout with max. 3% tolerance and max 1:14 gradient,
- Landings at top and bottom and at:
  - 9m intervals or less for 1:14,
  - 15m intervals or less for 1:20,
- Change in direction to have 90° angle of approach as per Figure 13,
- Handrails on each side as per Clause 12,
- Set back min. 900mm from boundary,
- Intersections at internal corridors to be set back min. 0.4m,

CLAUSE	STATUS	COMMENTS

- Handrails to extend min. 300mm horizontally past transition point at top and bottom, except where inner handrail is continuous at intermediate landings,
- Kerbs and kerb rails on both sides at min. height of 65mm, not be between 75mm and 150mm high and have no gaps or slots greater than 20mm within the range of 75mm to 150mm,
- Kerbs and kerb rails to be located so that ramp-side face is either flush or no greater than 100mm away from handrail (Figure 19), min. 150mm high if handrails have vertical posts (Figure 19 a, b, c), and be min. 200mm between 65mm-75mm kerb to support posts (Figure 19 d).

Clause 10.5 - Threshold ramps

- Threshold ramps at doorways to have a max. rise of 35mm, max length of 280mm, max gradient of 1:8 and be located within 20mm of the door leaf.
- Edges of the threshold ramp shall be tapered or splayed at max 45° if not abutting a wall.

Clause 10.6 - Step ramps

- Step ramps shall have max. rise of 190mm, max. length of 1.9m, max. gradient of 1:10.
- Edges of the step ramp to have 45° splay where there is pedestrian traffic or otherwise be protected by suitable barrier such as a min. 450mm wall or kerb / kerb rail with open balustrade.
- Step ramps to have slip-resistant surfaces.

Clause 10.8 - Landings

Landings for walkways (up to 1:33) and ramps shall comply with one of the following:

- min. 1.2m if no change in direction as per Figure 25(A),
- min. 1.5m where change in direction not exceeding 90° internal corner to be truncated for min. 500mm in both directions as per Figure 25(B),
- 180° turn, landing as per Figure 25(C).
- Landings for step ramps shall be min. 1.2m in length as per Figure 22(A) and (B). Where a change in direction, the length of the step ramp landing to be min. 1.5m as per Figure 22(A). At doorways, landings as per Clause 13.3 for circulation spaces at doorways shown in Figure 25(D).
- Landings at kerb ramps shall be min. 1.2m in length, or 1.5m X 2.0m at 'T' junctions. Where a single change in direction is required, landings to be min. 1.5m X 1.5m.

Clause 11.1 - Stair construction

Stairs to be constructed as follows:

- Set back min. 0.9m from boundary,
- Where intersection is at an internal corridor, the stair to be set back as per Figure 26(A),
- Have opaque risers,
- Nosings shall not project beyond the face of the riser and the riser may be vertical of 25mm backwards splay,
- Nosing profiles to have a sharp intersection, be rounded up to 5mm radius or be chamfered up to 5mm x 5mm,
- 50mm – 75mm strip to full length of nosing, set back a max. 15mm from the front of the nosing, with a 30% min. luminance contrast. If not set back, luminance contrast to extend down the riser by max 10mm.
- TGSIs installed as per AS1428.4.1.

Clause 11.2 - Stairway handrails

Handrails to be continuous throughout the stair flight and around landings and have no obstructions 0.6m above, and as follows:

- Design & construction as per Clause 12,
- Installed both sides,
- No vertical sections and shall follow angle of the stairway nosings,
- Extend at bottom of stairs one stair tread depth and min. 300mm horizontally, (300mm extension not required if handrail is continuous,
- Dimensions of heights of handrails taken vertically from the nosing or landing to the top of the handrail.

Clause 12 - Handrails

Design and construction to comply with:

- Handrails and balustrades shall not encroach into required circulation,
- Circular or elliptical cross-section, not less than 30mm or more than 50mm for more than 270°. Elliptical handrails to have greater horizontal dimensions,
- Exposed edges or corners have min. radius of 5mm,
- Top of handrail to be between 865mm and 1.0m above nosing or landing,
- Height to be constant throughout,
- If balustrade is required at a height greater than the handrail, both shall be provided,
- Handrails to be securely fixed and rigid with ends turned through a total of 180°, or to the ground, or returned fully to end post or wall face (Figures 26 C and D),
- Min. 50mm clearance to adjacent wall or other obstruction, for a height of 600mm,
- Handrails to have no obstructions to the passage of a hand along the rail,

Inside handrail at landings to always be continuous as per Figure 28(a).

CLAUSE	STATUS	COMMENTS

D4D5 - Exemptions

[2019: D3.4] The following areas are not required to be accessible: a) An area where access would be inappropriate because of the particular purpose for which the area is used. b) An area that would pose a health or safety risk for people with a disability. c) Any path of travel providing access only to an area exempted by (a) or (b).	CR	This provision provides details on buildings or parts of buildings not required to be accessible under the BCA. This clause details exemptions to the requirements for access to certain areas within buildings where providing access would be inappropriate because of the nature of the area or the tasks undertaken. These areas could include rigging lofts, waste containment areas, foundry floors, loading docks, fire lookouts, Class 8 electricity network substations, plant and equipment rooms and other similar areas. Assessment of these areas is on a case-by-case basis. Exemptions are to be reviewed on a case-by-case basis and when detailed design is achieved. Although, we do highlight that the following parts of the building have been offered access exemption (not exhaustive): ✓ Electrical rooms. ✓ Comms Room ✓ Existing parts not being altered ✓ Plant & equipment room(s). ✓ Service rooms. ✓ Fan Room Supply/Exhaust Air rooms ✓ Main Switch Rooms ✓ Waste Collection Rooms ✓ Diesel Pump Room ✓ Chamber Substation While these areas may be assessed as not required to be accessible, nothing in the BCA prevents a designer from providing greater access than the required provisions, should they desire to do so.

D4D6 Accessible carparking

[2019: D3.5, Table D3.5] Accessible carparking spaces—	CR	NA

D4D7 - Signage

[2019: D3.6] To assist people with a disability to easily identify the facilities, services, exits and	CR	1. In a building required to be accessible— a) braille and tactile signage complying with Specification 15 must— b) signage including the international symbol for deafness in accordance with AS 1428.1 must be provided within a room containing a hearing augmentation system identifying—

CLAUSE	STATUS	COMMENTS
features provided in a building.		c) signage in accordance with AS 1428.1 must be provided for accessible unisex sanitary facilities to identify if the facility is suitable for left or right-handed use; and d) signage to identify an ambulant accessible sanitary facility in accordance with AS 1428.1 must be located on the door of the facility; and e) 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; and f) where a bank of sanitary 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 sanitary facility. 2. In a building that is subject to F4D12 and is required to be accessible, directional signage complying with Specification 15 to direct a person to the location of the nearest accessible adult change facility within that building must be provided at the location of each— a) bank of sanitary facilities; and b) accessible unisex sanitary facility, other than one that incorporates an accessible adult change facility. Signage shall be installed in this project as necessary, but shall include as a minimum: 1. braille and tactile signage incorporating the international symbol of access or deafness, must identify each sanitary facility and space with hearing augmentation system; and 2. identify each door required by Clause E4.5 to be provided with an exit sign and state **"Exit"** and **"Level"** followed by the floor number. 3. signage incorporating the international symbol of access or deafness, must be provided within a room containing a hearing augmentation system identifying the hearing augmentation type, area covered and location of receivers. 4. signage in accordance with AS1428.1 must be provided for accessible unisex sanitary facilities to identify left or right-handed use. 5. signage to ambulant accessible facility must be on the door of the facility. 6. directional signage where a pedestrian entrance is not accessible, 7. directional signage where a bank of sanitary facilities is not provided with an accessible sanitary facility.
Specification 15: Braille and tactile signs		

CLAUSE	STATUS	COMMENTS

S15C1 Scope [2019: Spec D3.6: 1]

This Specification sets out the requirements for the design and installation of braille and tactile signage as required by D3D26, D4D7 and Specification 27.

S15C2 Location of braille and tactile signs [2019: Spec D3.6: 2]

Signs including symbols, numbering and lettering must be designed and installed as follows:

a) Braille and tactile components of a sign must be located not less than 1200 mm and not higher than 1600 mm above the floor or ground surface.

b) Signs with single lines of characters must have the line of tactile characters not less than 1250 mm and not higher than 1350 mm above the floor or ground surface.

c) Signs identifying rooms containing features or facilities listed in D4D7 must be located—

   (i) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and

   (ii) where (i) is not possible, the sign may be placed on the door itself.

d) Signs identifying a door required by E4D5 to be provided with an exit sign must be located—

   (i) on the side that faces a person seeking egress; and

   (ii) on the wall on the latch side of the door with the leading edge of the sign located between 50 mm and 300 mm from the architrave; and

   (iii) where (ii) is not possible, the sign may be placed on the door itself.

S15C3 Braille and tactile sign specification [2019: Spec D3.6: 3]

1. Tactile characters must be raised or embossed to a height of not less than 1 mm and not more than 1.5 mm.
2. Title case must be used for all tactile characters, and—
   a) upper case tactile characters must have a height of not less than 15 mm and not more than 55 mm, except that the upper-case tactile characters on a sign identifying a door required by E4D5 to be provided with an exit sign must have a height of not less than 20 mm and not more than 55 mm; and
   b) lower case tactile characters must have a minimum height of 50% of the related upper-case characters.
3. Tactile characters, symbols, and the like, must have rounded edges.
4. The entire sign, including any frame, must have all edges rounded.
5. The background, negative space or fill of signs must be of matt or low sheen finish.
6. The characters, symbols, logos and other features on signs must be matt or low sheen finish.
7. The minimum letter spacing of tactile characters on signs must be 2 mm.
8. The minimum word spacing of tactile characters on signs must be 10 mm.
9. The thickness of letter strokes must be not less than 2 mm and not more than 7 mm.
10. Tactile text must be left justified, except that single words may be centre justified.
11. Tactile text must be Arial typeface.

S15C4 Luminance contrast [2019: Spec D3.6: 4]

The following applies to luminance contrast:

a) The background, negative space, fill of a sign or border with a minimum width of 5 mm must have a luminance contrast with the surface on which it is mounted of not less than 30%.

b) Tactile characters, icons and symbols must have a minimum luminance contrast of 30% to the surface on which the characters are mounted.

c) Luminance contrasts must be met under the lighting conditions in which the sign is to be located.

CLAUSE	STATUS	COMMENTS

S15C5 Lighting [2019: Spec D3.6: 5]

Braille and tactile signs must be illuminated to ensure luminance contrast requirements are met at all times during which the sign is required to be read.

S15C6 Braille [2019: Spec D3.6: 6]

The following applies to braille:

a) Braille must be grade 1 braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority.

b) Braille must be raised and domed.

c) Braille must be located 8 mm below the bottom line of text (not including descenders).

d) Braille must be left justified.

e) Where an arrow is used in the tactile sign, a solid arrow must be provided for braille readers.

f) On signs with multiple lines of text and characters, a semicircular braille locator at the left margin must be horizontally aligned with the first line of braille text.

Clause 8 - 8.1 Form of signs

The BCA contains requirements for Braille and tactile signage in Specification D3.6. Where signs are required, the form of signs shall be as follows:

a) Where required, raised tactile and/or Braille signage shall be provided as follows:
   (i) Sanitary facilities shall be identified with the following:
      A) Raised and visual versions of the international symbol of access.
      B) Raised and visual versions of the male and female symbols.
      C) Raised text that shall be in title case (e.g. Male Toilet).
      NOTE: Title case has the first letter of each word capitalized and the rest are lower case. Short articles, prepositions and conjunctions are not capitalized.
      D) Braille that fully describes the visual information displayed by symbols and raised text.
         NOTES:
         1) For example, a sign for a male accessible toilet will include the words Male Toilet as visual, raised text and Braille as well as the raised visual male symbol.
         2) An example of a sign is given in Figure 9(a).
   (ii) Signs for unisex accessible facilities shall be provided with the letters LH or RH to indicate a left-hand or right-hand side transfer onto the WC pan.
      The minimum font size shall be 20 mm san serif.
      NOTES:
         1. An example of right-hand side (RH) transfer is shown on Figure 9(a).
         2. Helvetica and Arial are san serif fonts.
   (iii) Entry doors to airlocks serving areas containing sanitary facilities shall be identified by the use of raised text and Braille, together with raised and visual symbols identifying each sanitary facility within.
      NOTES:
         1. One symbol for each facility need only be used.
         2. Where the facilities for male and female are separate, a dividing line should be placed between each symbol.

b) Elements of a sign shall be set out singularly, or in a modular form.
   NOTE: Examples of modular form are shown in Figures 9(a), 9(d), 9(e) and 9(f).

c) Elements of a sign shall be arranged horizontally or vertically and shall include raised text and Braille, together with raised and visual symbols. Where words are used, they shall be displayed horizontally.
   NOTE: Other symbols may be used in association with the text.

d) Facilities shall be identified by the use of raised text, Braille, and symbols if required. The identification shall be between 1200 mm and 1600 mm above finished floor levels.

e) A sanitary compartment for people with ambulant disabilities shall be identified in accordance with Figure 9(c).

Braille shall be Unified English Braille (UEB), Grade 1, uncontracted, and shall be in accordance with the technical specifications set out by the Australian Braille Authority (ABA). Braille numerals shall be preceded by a Braille numerical sign.

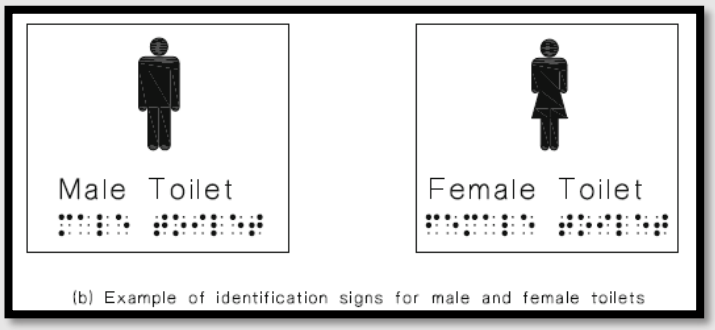
The International Symbol of Access and the International Symbol for Deafness (see Clause 8.2.2) may be used without raised explanatory text such as 'accessible' or 'hearing loop installed'.

CLAUSE	STATUS	COMMENTS

(a) Example of identification sign for a unisex accessible toilet with a right-hand (RH) transfer

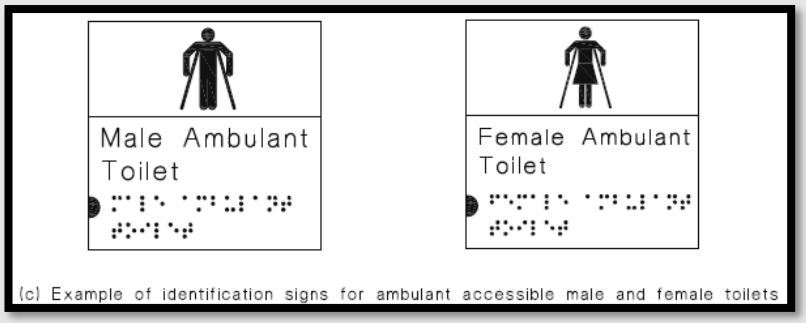
NOTES:
1. The Braille indicator is only used where there are multiple lines of text. It indicates the location of the first line of Braille.
2. Visual message: The sign displays a unisex accessible toilet with right-hand (RH) transfer.
3. Minimum required raised tactile message: 'Unisex Toilet RH' in raised tactile print and symbols.
4. Minimum required Braille message: 'Unisex accessible toilet RH' for right-hand transfer.

FIGURE 9 (in part) MODULAR FORM OF SIGNS



(b) Example of identification signs for male and female toilets

NOTES:
1. Visual message: The signs display male toilet and female toilet.
2. Minimum required raised tactile message: 'Male Toilet', 'Female Toilet' in raised tactile print and symbols.
3. Minimum required Braille message: 'Male Toilet', 'Female Toilet'.



(c) Example of identification signs for ambulant accessible male and female toilets

NOTES:
1. Visual message: The signs display ambulant accessible male and female toilets.
2. Minimum required raised tactile message: 'Ambulant Male Toilet', 'Ambulant Female Toilet' in raised tactile print and symbols.
3. Minimum required Braille message: 'Male Ambulant Toilet', 'Female Ambulant Toilet'.

FIGURE 9 (in part) MODULAR FORM OF SIGNS

CLAUSE	STATUS	COMMENTS

(d) Example of wayfinding sign to a unisex accessible toilet with left–hand (LH) transfer

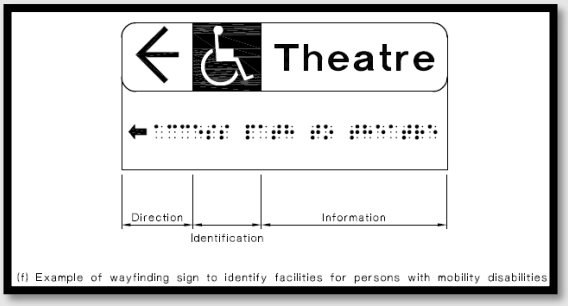
NOTES:
1. Visual message: The sign displays the direction to a unisex accessible toilet with left hand (LH) transfer.
2. Minimum required tactile message: 'Unisex Toilet LH' with raised tactile wayfinding arrow, print and symbols.
3. Minimum required Braille message: 'Unisex accessible toilet LH' with a wayfinding arrow of Braille cell proportion.

FIGURE 9 (in part) MODULAR FORM OF SIGNS

(e) Example of wayfinding sign to a unisex accessible toilet

NOTES:
1. Visual message: The sign displays an accessible path of travel using a lift to level 3 to a unisex accessible toilet.
2. Minimum required tactile message: 'Unisex Toilet Level 3' with raised tactile symbols and print.
3. Minimum required Braille message: 'Unisex accessible toilet on Level 3' with a wayfinding arrow of Braille cell proportion.

FIGURE 9 (in part) MODULAR FORM OF SIGNS



(f) Example of wayfinding sign to identify facilities for persons with mobility disabilities

NOTES:
1 Visual message: The sign displays the direction of an accessible path of travel to a theatre.
2 Minimum required tactile message: Raised tactile wayfinding arrow, print and symbols.
3 Minimum required Braille message: 'Access path to theatre' with a wayfinding arrow of Braille cell proportion.

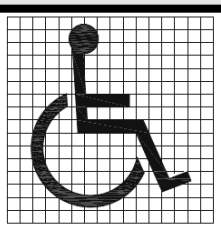
FIGURE 9 (in part) MODULAR FORM OF SIGNS

<u>8.2 Symbols indicating access for people with disabilities.</u>
<u>8.2.1 International symbol of access</u>
The form of the international symbol of access shall be as follows:
a) The symbol of access shall consist of two elements: a stylized figure in a wheelchair pointing to the right on a plain square background.

CLAUSE	STATUS	COMMENTS

b) The proportional layout of the symbol of access shall be in accordance with Figure 10.
c) The colour of the Figure shall be white on a blue background in accordance with Figure 11. The blue shall be B21, ultramarine, of AS 2700, or similar.
d) For signs indicating the direction to a facility, an arrow shall be used in combination with the international symbol of access.

NOTE: Signs identifying a facility may be used either with or without directional arrows.



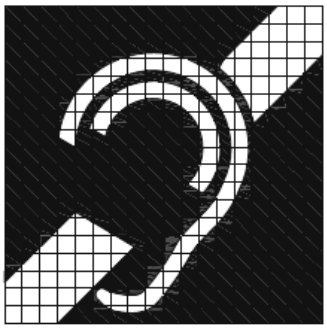
NOTE: The grid is for positional purposes only.

FIGURE 10 PROPORTIONAL LAYOUT FOR INTERNATIONAL SYMBOL OF ACCESS

FIGURE 11 COLOUR CONTRAST FOR SYMBOL OF ACCESS

8.2.2 International symbol for deafness

The form of the international symbol for deafness shall be as follows:
a) The symbol for deafness shall consist of two elements: a stylized ear and diagonal slash on a plain square background.
b) The proportional layout of the symbol for deafness shall be in accordance with Figure 12.
c) The colour of the symbol shall be white on a blue background. The blue shall be B21, ultramarine, of AS 2700, or similar.



NOTE: The grid is for positional purposes only.

FIGURE 12 PROPORTIONAL LAYOUT FOR INTERNATIONAL SYMBOL FOR DEAFNESS

D4D8 - Hearing augmentation

[2019: D3.7] To assist people with hearing impairment to be made aware of communications	NA	Not Applicable

CLAUSE	STATUS	COMMENTS
associated with a building's use.		

D4D9 - Tactile indicators

[2019: D3.8] Accessible buildings must have signage to comply with AS1428.1-2009 and as follows	CR	Provide tactile ground surfaced indicators complying with AS/NZS 1428.4.1-2009 1. 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— a) a stairway, other than a fire-isolated stairway; and b) an escalator; and c) a passenger conveyor or moving walk; and d) a ramp other than a fire-isolated ramp, step ramp, kerb ramp or swimming pool ramp; and e) in the absence of a suitable barrier— (i) an overhead obstruction less than 2 m above floor level, other than a doorway; and (ii) an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building, excluding a pedestrian entrance serving an area referred to in D4D5, if there is no kerb or kerb ramp at that point, except for areas exempted by D4D5. 2. Tactile ground surface indicators required by (1) must comply with sections 1 and 2 of AS/NZS 1428.4.1. 3. A hostel for the aged, nursing home for the aged, a residential aged care building, Class 3 accommodation for the aged, Class 9a health-care building or a Class 9c aged care building need not comply with (1)(a) and (d) if handrails incorporating a raised dome button in accordance with AS/NZS 1428.4.1 are provided to warn people who are blind or have a vision impairment that they are approaching a stairway or ramp. ******* ❖ *Where the distance of the landing is 3000 mm or more to the nearest nosing edge, the warning indicators shall be over a distance of 600mm–800mm.* ❖ *Where the distance of the landing is less than 3000 mm to the nearest nosing edge, the warning indicators shall be over a distance of 300–400mm.*

CLAUSE	STATUS	COMMENTS

D4D10 - Wheelchair seating spaces in Class 9b assembly buildings

[2019: D3.9] D3.9 provides requirements for the provision of wheelchair seating spaces in Class 9b assembly buildings	NA	Not Applicable

D4D11 - Swimming pools

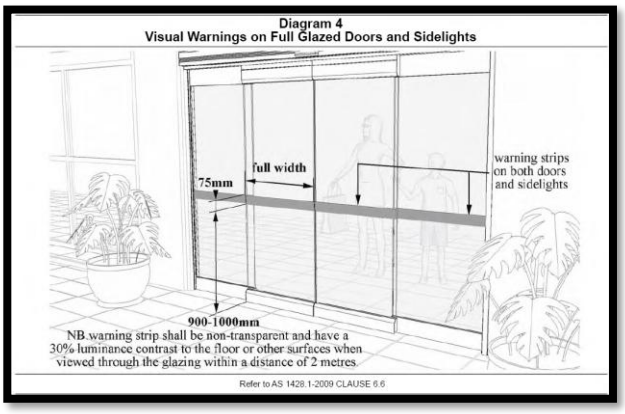
[2019: D3.10] To specify the requirements for accessible swimming pools.	NA	Not Applicable

D4D12 Ramps

[2019: D3.11] To specify the requirements for ramps forming part of an accessway.	CR	On an accessway— a) a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.

D4D13 - Glazing on an accessway

[2019: D3.12] 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.	CR	Any such glazing on an accessway must be clearly marked in accordance with AS 1428.1-2009. Where there is no chair rail, handrail, or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid contrasting line. The contrasting line shall be not less than 75mm wide and shall extend across the full width the glazing panel. The lower edge of the contrasting line shall be located between 900mm and 1000mm above the plane of the finished floor level.

CLAUSE	STATUS	COMMENTS
		Any contrasting line on the glazing shall provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side. This provision requires there to be a contrasting strip, chair rail, handrail, or transom across all frameless or fully glazed doorways and surrounding glazing capable of being mistaken for an opening. The purpose of this requirement is to assist a person who has a vision impairment to be able to identify the presence of the glazing and avoid injury caused by contact with the glazing. A contrasting strip with a series of dots, unconnected patterns or shapes that do not provide high levels of contrast would not meet the requirements of this provision. 

PART E3 LIFT INSTALLATIONS

E3D7 Passenger lift types and their limitations

[2019: E3.6, Table E3.6a, Table E3.6b] To require that lifts necessary for use by people with a disability are suitable.	CR	NA

E3D8 Accessible features required for passenger lifts

[2019: Table E3.6a, Table E3.6b]	CR	NA

CLAUSE	STATUS	COMMENTS

PART F4 SANITARY AND OTHER FACILITIES

F4D5 Accessible sanitary facilities

[2019: F2.4] Section D requires equitable and dignified access to buildings and the services they provide. Section D and Part F2 are also intended to apply inclusively to people with a disability (see FP2.1). Not only must people with a disability be able to access a building's sanitary facilities, but those facilities must also be usable by them.	CR	In a building required to be accessible— a) accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with F4D6; and b) accessible unisex showers must be provided in accordance with F4D7; and 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, not less than one sanitary compartment suitable for a person with an ambulant disability for use by males and not less than one sanitary compartment suitable for a person with an ambulant disability for use by females, each in accordance with AS 1428.1, must be provided; and d) An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary products; and e) the circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with F4D6 and F4D7 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) an accessible unisex sanitary compartment or an accessible unisex shower need not be provided on a storey or level that is not required by D4D4(f) to be provided with a passenger lift or ramp complying with AS 1428.1.

F4D6 Accessible unisex sanitary compartments

[2019: Table F2.4a]	CR	1. Where required by F4D5(a), the minimum number of accessible unisex sanitary compartments for each class of building is as follows: a) **For a Class 1b building**— b) **For a Class 2 building,** where sanitary compartments are provided in common areas, not less than 1. c) **For Class 3 and Class 9c buildings**— d) **For Class 5, 6, 7, 8 or 9 buildings**, where F4D4 requires closet pans—

CLAUSE	STATUS	COMMENTS
		(i) 1 on every storey containing sanitary compartments; and 2. where a storey has more than 1 bank of sanitary compartments containing male and female sanitary compartments, at not less than 50% of those banks.

F4D7 Accessible unisex showers

[2019: Table F2.4b]	NA	Not Applicable

F4D12 Accessible adult change facilities

[2019: F2.9]	NA	Not Applicable

LIMITATIONS OF THE REPORT

This report does not assess the following:

- ✓ National Construction Code 2022, Volume 2.
- ✓ Does not provide concessions, alternative solutions, or exemptions from the requirements of the BCA.
- ✓ Statutory Signage.
- ✓ Access and facilities for people with disabilities are addressed, however compliance with the Disability Discrimination Act 1992 (DDA) is outside the scope of this report. It should be noted that BCA compliance does not necessarily meet the requirements of the Disability Discrimination Act (DDA).
- ✓ Compliance with the requirements of any Performance Solution.
- ✓ Review or specification of slip-resistance classification(s) for floor surface finishes/materials. Surface finish should be sought by an independent specialist slip safety consultant.
- ✓ Readily movable furniture has been treated as indicative only unless otherwise noted within the report as it not considered to form part of the building as addressed by the BCA.
- ✓ Reporting on hazardous materials, OH&S matters, or site contamination
- ✓ Assessment of any structural elements or geotechnical matters relating to the building, including any structural or other assessment of the existing fire-resistant levels of the building.
- ✓ Consideration of any fire services operations (including hydraulic, electrical, or other systems)
- ✓ Assessment of plumbing and drainage installations, including stormwater.
- ✓ Assessment of mechanical plant operations, electrical systems, or security systems
- ✓ Heritage significance.
- ✓ Consideration of energy or water authority requirements.
- ✓ Consideration of Council's local planning policies.
- ✓ Consideration of Council's conditions of any consent.
- ✓ Environmental or planning issues.
- ✓ Requirements of statutory authorities.
- ✓ Pest inspection or assessment building damage caused by pests (general/visual pest invasion or damage will be reported, however invasive or intrusive inspections have not been carried out).
- ✓ Other Sections of the BCA are not considered.
- ✓ Provision of any construction approvals or certification under the Environmental Planning & Assessment Act 1979, Environmental Planning and Assessment (Development Certification and Fire Safety) Regulation 2021, Environmental Planning and Assessment Regulation 2021.
- ✓ Glazing, shading, lighting calculations and the like required by Section J of the BCA not been carried out.
- ✓ BCA 2022 does not directly specify slip-resistance classification(s) for all *accessible paths of travel*; however, we highlight the need under AS 1428.1-2009 for all *accessible paths of travel* to have a slip-resistant surface. We recommend you should seek surface finish advice from an independent specialist slip safety consultant.

This report does not include, or imply compliance with:

- ✓ Sections B, C, D, E, F, G, H, I or J of the BCA.
- ✓ the Disability Discrimination Act.
- ✓ Work Health and Safety Act.
- ✓ Requirements of other Regulatory Authorities including, but not limited to, Telstra, NBN Co, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads, and Maritime Services (RMS), Roads and Transport Authority, Local Council, ARTC, Department of Planning and the like.

CONCLUSION

The primary purpose of this report was to identify the non-compliance matters contained in the proposed design against the current Accessible Provisions of the NCC 2022 and to provide compliance recommendations to overcome the DTS non-compliances.

The result of the report identifies that the design has some non-compliances with the DtS provisions of the NCC, however can be readily resolved by minor design changes or Performance Solution(s).

Subject to the recommendations, the current design can comply with the accessibility provisions of the NCC. Performance Solutions could be further developed and verified by an appropriately qualified Access Consultant.

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