



DDEEG

Fire Safety | Acoustics | Access | Building Solutions

**1157-1165 Burwood Highway, Upper Ferntree Gully,
VIC**

Access Design Review report – Town Planning



1157-1165 Burwood Highway, Upper Ferntree Gully, VIC

Access Design Review report – Town Planning

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Revision History

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ADR	0	21/06/2024	Town Planning Review	[Redacted]	

Executive Summary

Orro Group has appointed DDEG to undertake a design review of the project to assess the accessibility provisions during Town Planning of the design documentation for 1157-1165 Burwood Highway, Upper Ferntree Gully, VIC.

We understand that the project comprises construction of a brand-new childcare centre with a capacity for up to 120 children with basement carparking.

The body of this report (Section 3) contains the key areas for design adjustments in relation to the documentation reviewed, other mandatory access requirements that affect the design but are considered typical are detailed within Appendix A. This Appendix is intended to be used as a guide to assist with development of documentation. All references include applicable requirements from relevant Disability Access legislation.

Where opportunities exist for variations to the DTS Provisions these are summarised within Table 4 of this report.

This Access Report evaluates the access provisions against the National Construction Code (NCC), Building Code of Australia (BCA) 2022, Disability Discrimination Act (Australian Government, 1992), and the Disability (Access to Premises - Buildings) Standards – the “Premises Standards” (Australian Government, 2010).



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1 Introduction

1.1 Purpose

Orro Group has appointed DDEG to undertake a design review of the project to assess the accessibility provisions during Town Planning of the design documentation for 1157-1165 Burwood Highway, Upper Ferntree Gully, VIC.

Where opportunities exist for variations to the DTS Provisions these are summarised within Table 4 of this report.

The main body of this report (Section 3) contains the key areas for design adjustments in relation to the documentation reviewed, other mandatory access requirements that affect the design but are considered typical are detailed within Appendix A. This Appendix is intended to be used as a guide to assist with development of documentation. All references include applicable requirements from relevant Disability Access legislation.

This Access Report evaluates the access provisions against the National Construction Code (NCC), Building Code of Australia (BCA) 2022, Disability Discrimination Act (Australian Government, 1992), and the Disability (Access to Premises - Buildings) Standards – the “Premises Standards” (Australian Government, 2010).

This report is only to be used for 1157-1165 Burwood Highway, Upper Ferntree Gully, VIC, with the design as described in the referenced documentation. The report is not to be used to support any other design scheme as changes to the design may affect the evaluation. DDEG Ltd takes no responsibility for any issues associated with the misuse of this report.

1.2 Relevant Legislation

The primary legislation applicable to the development is the National Construction Code (NCC), Building Code of Australia (BCA) 2022, Disability Discrimination Act (Australian Government, 1992), and the Disability (Access to Premises - Buildings) Standards – the “Premises Standards” (Australian Government, 2010).

The BCA provides a set of Performance Requirements which must be complied with. The prescriptive deemed-to-satisfy (DTS) Provisions are also described in the BCA. A design that complies with the DTS Provisions is deemed to comply with the Performance Requirements. A Performance Solution is a design that does not comply with the DTS Provisions however is shown to comply with the Performance Requirements by way of an evaluation.

The objective of the Premises Standards (Australian Government, 2010) is to provide the building and design industry with detailed information about how they can design and construct their buildings in a way that meets their responsibilities under the Disability Discrimination Act (Australian Government, 1992).

It is acknowledged that there are limitations to these standards and their use exclusively, will not prevent a claim being made under the DDA. It is noted that the DDA is a complaints-based mechanism, whereby a claim of unlawful discrimination may be taken firstly to the Human Rights Commission and if unsuccessful to the Federal Court of Australia. This report offers a merit-based assessment of those designs and plans against the BCA Performance Requirements and referenced standards with respect to access for people with a disability.

1.3 Access to Premises Standard Limitations

People who design, build, own, lease, operate or manage a premise have a responsibility under the Disability Discrimination Act 1992 (DDA) not to discriminate against people with disabilities. While complying with the Premises Standards and BCA does not absolve discrimination or lodgement of a complaint with the Australian Human Right Commission, it is considered as reasonable defence.

Facility managers, lessees and property owners are advised that the Disability Discrimination Act 1992 (DDA) places duties on employers and service providers to consider barriers; both physical and non-physical, that people may encounter when trying to access a service or employment.

It is recommended that management implement a process of continued quality improvements with respect to maintaining safe and equitable access and to monitor the amenities to identify any unforeseen issues created by the proposed works.

1.4 Reference Documentation

The report is based on information contained in the following documents and drawings:

Table 1 Reference Documentation

Document	Prepared by	Issue
<u>Email</u> To: [REDACTED] CC: [REDACTED] Subject: Q056 - 1157 - 1165 Burwood Highway, Upper Ferntree Gully: FER Report & DDA	[REDACTED]	Tues 09/04/2024 4:56 PM
<u>Drawing Series</u> Proposed Childcare Centre 1157 - 1165 Burwood Highway, Upper Ferntree Gully Job No: UP2404FD Drawing TP03.1 <i>Proposed Site Plan - Carpark Level</i> Drawing TP03.3 <i>Proposed Childcare Centre Floor Plan</i> Drawing TP05.1 <i>Sections 1</i>	Fd Architects Pty Ltd	Revision 6 05/04/2024

1.5 Project Stakeholders

The project stakeholders are listed below:

Table 2 Relevant Stakeholders

Contact	Organisation	Role
[REDACTED]	Orro Group	Client
[REDACTED]	Fd Architects Pty Ltd	Architect
[REDACTED]	DDEG (Access)	Access Consultant

1.6 Report Limitations

The following limitations are applicable with respect to the access advice presented in this report:

- DDEG has prepared this document for the sole use of the client and for the specific purpose expressly stated in the document. No other party should rely on this document without the prior written consent of DDEG. DDEG undertakes no duty, nor accepts any responsibility, to any third party who may rely upon or use this document.
- The information contained in this document provides advice in relation to access and mobility only. No claims are made and no liability is accepted in respect of design and construction issues falling outside of the specialist field of access and mobility.
- Reports marked 'Draft' may be subject to change and are not released as final reports. DDEG accepts no liability pending release of the final version of the report.

- In preparing this document DDEG may have relied upon information provided by the client and other third parties, some of which may not have been verified. DDEG accepts no responsibility or liability for any errors or omissions which may be incorporated into this document as a result.
- The recommendations, data and methodology documented in this report are based on the listed reference documentation. The recommendations apply specifically to the project under consideration, and must not be utilised for any other purpose. Any modifications or changes to the project from that described in the listed reference documentation may invalidate the advice provided in this document, necessitating a revision.
- Subject to the above conditions, this document may be transmitted, reproduced or disseminated only in its entirety.

2 Principal Building Characteristics

The building characteristics described below are informative only. The information is based on referenced documentation and is current at the time of writing this report. It is not intended to restrict or limit the design and is subject to clarification or change as the design develops.

It is the responsibility of the design team, services engineers and building surveyor to ensure compliance with all parts of the BCA DTS provisions.

2.1 Building Characteristics

The project comprises of the construction of a brand-new childcare centre with a capacity for up to 120 children with basement carparking.

Table 3 Building Parameters

BCA Parameter	
Occupancy	Childcare
BCA Classification	Class 9b (Childcare)
Extent of Access	Class 9b To and within all areas normally used by the occupants.

With consideration to the use of particular spaces and understanding that they are off-limits to the public, the following areas have been deemed inappropriate and may be exempt from access under Clause D3.4, therefore these areas have not been included as part of this assessment:

- Kitchen.
- Storage Rooms.

3 Access Design Review Findings

1157-1165 Burwood Highway, Upper Ferntree Gully, VIC		
Drawing no.	BCA DTS Provisions	Comment
-	See Appendix B.	-

4 Potential Design Variations

With consideration to the proposed use and design, we believe that there are opportunities to consider variations from the Deemed-to-Satisfy (DTS) Provisions through adopting a Performance-Based approach. These variations are itemised within Table 4 below and are at the discretion of the Relevant Building Surveyor (RBS).

Table 4 Proposed Performance Solutions and Reference Criteria

Proposed Performance Solution	Building Code of Australia	
	DTS Provision	Performance Requirement
To provide technical justification to support reduced door circulation spaces to Childrens toilets within a childcare centre through consideration that children are under constant supervisions by carers at all times. Due to the roles of carers, staff are expected to have a high degree of mobility to assist children out of the toilet area.	D4D2 inter alia AS 1428.1, Clause 13.3	D1P1(a)
To provide technical justification to waive access to staff-restricted Kitchen, Laundry and storage rooms. Consideration is given that staff members are expected to have a high degree of mobility to undertake their roles and responsibilities.	D4D2	D1P1(a)
To provide technical justification to support the active leaf within a doorway containing multiple leaves to achieve a clear openable width less than 850mm. Conditional upon each door leaf containing a min. clear width of 800mm.	D4D3(5)	D1P1(a)
To provide technical justification for reduced handrail extensions at the top and bottom landing of a stair (in lieu of extending horizontally 300mm past the top riser, and the one tread depth + 300mm past the bottom riser).	D4D3(a)(ii) inter alia AS 1428.1, Clause 11.2	D1P1(a) & D1P2(c)(ii)
To provide technical justification that supports a gender non-specific ambulant sanitary facility in lieu of providing separate male and female facilities. Conditional upon fully enclosing the compartment.	F4D4(1), F4D5(c)	F4P1

Prior to adopting any of the above variations, and proceeding further with design documentation, we strongly recommend seeking acceptance from the Relevant Building Surveyor. Should you wish to proceed with these Performance Solutions, please contact us.

5 References

- Australian Government. (1992). *Disability Discrimination Act*. Office of Legislative Drafting and Publishing.
- Australian Government. (2010). *Disability (Access to Premises-Buildings) Standards*.
- Standards Australia. (1999). *AS 1725.12 - 1999 Lifts escalators and moving walks (Part 12: Facilities for persons with disabilities)*.
- Standards Australia. (2009). *AS/NZS 1428.4.1 - 2009 Design for Access and Mobility (Part 4.1: Means to assist the orientation of people with vision impairment - Tactile ground surface indicators)*.
- Standards Australia. (2010). *AS1428.1 - 2009 Design for Access and Mobility (Part 1: General requirements for access - New building work)(Incorporating Amendment No. 1)*.
- Standards Australia and Standards New Zealand. (2009). *AS/NZS 2890.6:2009 Parking facilities Part 6: Off-street parking for people with disabilities*. Australia and New Zealand: Joint - Standards Australia and Standards New Zealand.

Appendix A Supplementary Design Advice – Mandatory Considerations

This Appendix identifies accessibility elements that relate to the body of this report, they are intended to be used as a guide only to assist with development of documentation. All references include applicable requirements from relevant Disability Access legislation.

Category	Description	Legislative Requirement	
Accessible Carparking	1	Each angled type accessible car space is to have a 2400mm width x 5400mm length.	AS/NZS 2890.6 Clause 2.2.1(a)
	2	A shared area of 2400mm width x 5400mm length is to be provided to one side of each accessible car space Two accessible car spaces may share the same shared area.	AS/NZS 2890.6 Clause 2.2.1(b)
	3	An unmarked shared area of 2400mm width x 2400mm length is to be provided at the front or rear of the accessible car space	AS/NZS 2890.6 Clause 2.2.1(c)
	4	Accessible car spaces and shared areas must be at the same level, on a firm plane surface with maximum 1:40 fall in any direction (1:33 for bituminous seal).	AS/NZS 2890.6 Clauses 2.2.1(d) & 2.3.
	5	Vertical clearances must be provided as follows: <ul style="list-style-type: none"> ▪ Minimum 2200mm AFFL throughout the vehicular path of travel between the carpark entrance and accessible car parking spaces; and ▪ Minimum 2500mm AFFL within accessible car spaces and adjacent shared areas. This may be reduced above bonnet areas to allow for structural bulk-heads, pipe work, etc. 	AS/NZS 2890.6 Clause 2.4 AS/NZS 2890.6 Figure 2.7.
	6	Each accessible car space is to be identified with a white symbol of access on a blue square background Include dimensions re: the size and positioning of the symbol.	AS/NZS 2890.6 Clause 3.1
	7	The accessible car space is to be outlined with unbroken lines of 80 – 100 mm width on all sides excepting any side delineated by a kerb, barrier or wall	AS/NZS 2890.6 Clause 3.2(a)
	8	The adjacent shared area is to be outlined with unbroken lines of 80 – 100 mm width on all sides excepting any side delineated by a kerb, barrier or wall, and marked with 45 ± 10° angled stripes of 150 – 200mm width, set 200 – 300mm apart.	AS/NZS 2890.6 Clause 3.2(b)(ii)
	9	Pavement markings are to be yellow and slip-resistant.	AS/NZS 2890.6 Clause 3.2
	10	Direction signs are to be provided at the carpark entrance or at points of change of direction, should the route to parking spaces for people with disabilities not be readily apparent from the vehicular entrance to the car park.	AS/NZS 2890.6 Clause A3(a)
	11	Direction signs to comprise the international symbol of access (facing right) and an arrow.	AS/NZS 2890.6 Clause A3(a)
	12	An accessway is to be provided from any accessible car parking space to the appurtenant building entrance	BCA Clause D4D6

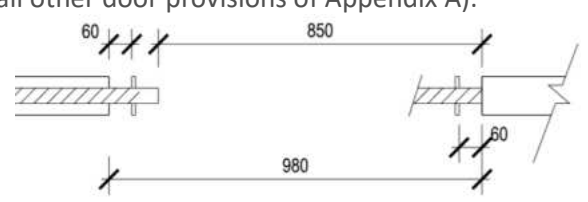
Category	Description		Legislative Requirement		
External Pathways	13	An accessible path is to be provided from the pedestrian entry at the street alignment to the principal entrance to the building.	BCA Clause D4D6		
	14	The selected ground floor pavement materials will need to be an accessible slip-resistant surface with a texture that allows it to be traversable by a wheelchair and people with an ambulant or sensory disability.	AS 1428.1 Clause 7.1		
	15	Cross-fall not to exceed 1:40.	AS 1428.1 Clause 10.1		
	16	Any abutments between new paving materials or between new and existing ground surfaces are designed without a step or lip between these abutting surfaces Note that construction tolerances are permitted i.e. 3mm for vertical abutments and 5mm for rounded or bevelled abutments.	AS 1428.1 Clause 7.2		
	17	Stormwater grates installed within accessible paths or external courtyards must have slotted openings not exceeding 13mm in width and be orientated so that the long dimension is transverse to (across) the dominant direction of travel. Alternatively, circular openings can be used, provided that openings do not exceed 13mm in diameter.	AS 1428.1 Clause 7.5		
Walkways	18	<p>The surface abutting sides of each walkway must comply with one of the following options:</p> <ul style="list-style-type: none"> ▪ Provide a firm and level surface of a different material to that of the walkway and be at the same level of the walkway, follow the grade of the walkway and extend horizontally for a minimum of 600 mm; or ▪ Kerbs in accordance with Figure 18 of AS 1428.1; or ▪ Kerb rail and handrails in accordance with Figure 19 of AS 1428.1; or ▪ A wall not less than 450mm in height. 	AS 1428.1 Clause 10(a)		
Ramps (greater than 1900mm in length)	19	Ramps greater than 1900mm in length are simply referred to as 'ramps'.	AS 1428.1 Clause 10.3.		
	20	Ramp camber/cross-falls are to be level.	AS1428.1 Clause 10.1		
	21	<p>Compliant ramp landings, including:</p> <ul style="list-style-type: none"> ▪ Landing camber/cross-falls are to be no more than 1:40 (or 1:33 if bitumen surface). ▪ A compliant door landing (dependant on the door configuration) at the top of the step ramp and before any doorway (AS 1428.1 Figures 31 and 32). ▪ Sharp transitions at the change of grade between the landings and ramp. ▪ Intermediate landings as per AS 1428.1 Table C1, which requires a landing every 9m as a minimum. 	AS 1428.1 Clause 10.8.1		
	22	A slip-resistant surface is required on all ramps and landings.	BCA Table D3D15		
		<table border="1" style="width: 100%;"> <tr> <th style="width: 50%;">Application</th> <th style="width: 50%;">Surface Condition</th> </tr> </table>	Application	Surface Condition	
Application	Surface Condition				

Category	Description			Legislative Requirement	
		Dry Rating	Wet Rating		
		Ramp steeper than 1:20, but not steeper than 1:14	P3 or R10	P4 or R11	
		Landing surface	P3 or R10	P4 or R11	
		TGSIs installed on landings	P4 or R11	P5 or R12	
	23	A ramp that intersects at a property boundary to be set back a minimum of 900mm.			AS 1428.1 Clause 10.3(f)
	24	A ramp that intersects at a corner to be set back a minimum of 400mm.			AS 1428.1 Clause 10.3(g)
	25	The unobstructed width of accessible path of travel to be a minimum 1000mm width between handrails			AS 1428.1 Clause 6.3
	26	Compliant handrails are required on both sides of ramp and landing, with compliant handrail 300mm long horizontal extensions over each landing.			AS 1428.1 Clause 10.3
	27	Kerbs or kerb rails are required on both sides of each ramps and associated landings. A wall at least 450mm high may serve as a kerb rail.			AS 1428.1 Clause 10.3(i)
	28	TGSIs are required at the lower landing and top landing of each ramp.			AS/NZS 1428.4.1 Clause 2.4
Step Ramps (Less than 1900mm in Length)	29	Ramps less than 1900mm in length are considered to be 'step ramps'.			AS 1428.1 Clause 10.6
	30	Step ramps may be used where a ramp is not greater than 1900mm long, but the profile of a step ramp must have a: <ul style="list-style-type: none"> ▪ Maximum rise of 190mm; ▪ Length not greater than 1900mm; ▪ Gradient not steeper than 1 in 10; ▪ Sharp transitions at the change of grade between the landings and ramp; and ▪ Edges of a step ramp must be protected to remove the chance of slips, trips and falls by a: <ul style="list-style-type: none"> ○ 450mm high wall or other suitable barrier, retaining garden bed walls, raised planter boxes or the like can achieve this requirement; ○ handrail and kerbrail; or ○ 45° splay on each edges (though this is not recommended in high traffic areas or smaller spaces) 			AS 1428.1 Clause 10.6
	31	Step ramp camber/cross-falls are to be level.			AS 1428.1 Clause 10.1
	32	Compliant ramp landings including: <ul style="list-style-type: none"> ▪ Landing camber/cross-falls are to be no more than 1:40 (or 1:33 if bitumen surface). ▪ A compliant door landing (dependant on the door configuration) at the top of the step ramp and before any doorway (AS 1428.1 Figures 31 and 32). 			AS 1428.1 Clause 10.8.2

Category	Description	Legislative Requirement														
	<ul style="list-style-type: none"> Step ramp landings must not overlap each other (BCA D4D12). 															
	33 A slip-resistant surface is required on all step ramp and landings. <table border="1"> <thead> <tr> <th rowspan="2">Application</th> <th colspan="2">Surface Condition</th> </tr> <tr> <th>Dry Rating</th> <th>Wet Rating</th> </tr> </thead> <tbody> <tr> <td>Ramp steeper than 1:14</td> <td>P4 or R11</td> <td>P5 or R12</td> </tr> <tr> <td>Step ramp steeper than 1:20, but not steeper than 1:14</td> <td>P3 or R10</td> <td>P4 or R11</td> </tr> <tr> <td>Landing surface</td> <td>P3 or R10</td> <td>P4 or R11</td> </tr> </tbody> </table>	Application	Surface Condition		Dry Rating	Wet Rating	Ramp steeper than 1:14	P4 or R11	P5 or R12	Step ramp steeper than 1:20, but not steeper than 1:14	P3 or R10	P4 or R11	Landing surface	P3 or R10	P4 or R11	BCA Table D3D15
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Landing surface	P3 or R10	P4 or R11														
Kerb Ramps	34 Ramps that are provided in pavements to negotiate raised kerbs are known as 'kerb ramps'.	AS 1428.1 Clause 10.7														
	35 Kerb ramps must have a: <ul style="list-style-type: none"> Maximum rise of 190mm; Length not greater than 1520mm; Gradient not steeper than 1 in 8; Located within or attached to a kerb; Edges of a kerb ramp must be protected to remove the chance of slips, trips and falls by a 45° splay on each edges; Sharp transitions at the change of grade between the pavement/footpath and ramp; and When looking in cross-section view, the angle between the ramp surface and that of the lower surface/drain must be at least 166°. 	AS1428.1 Clause 10.7.2														
	36 Kerb ramp camber/cross-falls are to be level.	AS 1428.1 Clause 10.1														
	37 Footpath/lower level landing area camber/cross-falls are to be no more than 1:40 (or 1:33 if bitumen surface).	AS 1428.1 Clause 10.7														
	38 A slip-resistant surface is required on all kerb ramp and landings. <table border="1"> <thead> <tr> <th rowspan="2">Application</th> <th colspan="2">Surface Condition</th> </tr> <tr> <th>Dry Rating</th> <th>Wet Rating</th> </tr> </thead> <tbody> <tr> <td>Ramp steeper than 1:14</td> <td>P4 or R11</td> <td>P5 or R12</td> </tr> <tr> <td>Landing surface</td> <td>P3 or R10</td> <td>P4 or R11</td> </tr> <tr> <td>TGSIs installed on ramp</td> <td>P4 or R11</td> <td>P5 or R12</td> </tr> </tbody> </table>	Application	Surface Condition		Dry Rating	Wet Rating	Ramp steeper than 1:14	P4 or R11	P5 or R12	Landing surface	P3 or R10	P4 or R11	TGSIs installed on ramp	P4 or R11	P5 or R12	BCA Table D3D15
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Threshold Ramps (for Doorways)	39 The profile of a threshold ramp must have a: <ul style="list-style-type: none"> Maximum rise of 35mm; Length not greater than 280mm; Gradient not steeper than 1 in 8; Be located within 20mm of the door leaf which it serves' Edges of a threshold ramp must be protected to remove the chance of slips, trips and falls by: 	AS 1428.1 Clause 10.5														

Category	Description			Legislative Requirement
		<ul style="list-style-type: none"> ○ A wall or other suitable barrier; or ○ A 45° splay on each edges 		
	40	Landing camber/cross-falls are to be no more than 1:40 (or 1:33 if bitumen surface).		AS 1428.1 Clause 10.5
	41	A slip-resistant surface is required on all threshold ramps and landings.		BCA Table D3D15
		Application	Surface Condition	
			Dry Rating Wet Rating	
		Ramp steeper than 1:14	P3 or R10 P5 or R12	
		Landing surface	P3 or R10 P4 or R11	
Floor Surfaces	42	The selected ground and floor finishes within accessible portions of the building need to be slip resistant and glare free.		AS 1428.1 Clause 7.1
	43	Any selected carpet within accessible areas need to have a short pile that is less than 6mm, as wheelchairs cannot traverse long-pile carpet.		AS 1428.1 Clause 7.4.1
	44	Any recessed matting needs to comply with AS 1428.1 Clause 7.4.2.		AS 1428.1 Clause 7.4.2
	45	All abutting surfaces between floor surfaces, door thresholds and the like must have no vertical edge exceeding 3mm or 5mm if they have rounded or bevelled edges.		AS 1428.1 Clause 7.2(a)&(b)
	46	The floor gradient in the shower recess is to be in the range of 1:60 - 1:80.		AS 1428.1 Clause 15.5.2(c)
	47	The grade for the remainder of the floor in the sanitary facility is to be in the range of 1:80 - 1:100.		AS 1428.1 Clause 15.5.2(d)
Gates (Pedestrian)	48	Pedestrian gates in accessible areas must provide a clear opening (including the active leaf for any double leaf gates) of at least 850mm.		AS 1428.1 Clause 13.2
	49	Compliant circulation spaces on each side of each gate, including: <ul style="list-style-type: none"> ▪ Latch-side clearance; ▪ Hinge-side clearance; and ▪ Approach clearance / landing space. 		AS 1428.1 Clause 13.3.1
	50	The gate circulation space must have no gradient and/or cross-fall steeper than 1:40.		AS 1428.1 Clause 13.3.1
	51	Due other safety-based legislation there are situations where a gate controller must be located higher than the accessible range of 900-1100mm, such as gates in swimming pool areas and child-care facilities (this is permitted within AS 1428.1, Clause 13.5.3). Where this is the case we recommend an Accessible Childproof Latch locking system be provided to each gate. Provision of this latch device will allow a person using a wheelchair to unlock the gate using an MLAK wheelchair access key.		AS 1428.1 Clause 13.5.3

Category	Description	Legislative Requirement	
	<p>See the Accessible Childproof Latch for further details on the AC Latch.</p> <p>The MLAK must be accessible from both sides of any gates using this system.</p>		
Doors	52	The clear openable width of all doorways in accessible parts of the building shall contain a minimum clear width of 850mm.	AS 1428.1 Clause 13.2
	53	The clear opening of ambulant toilet doorways must provide a minimum clear opening of 700mm.	AS 1428.1 Clause 16.3
	54	The threshold at all entry doors must incorporate a smooth transition without a step or lip (BCA Table D4D2 & D4D3). But, AS 1428.1 Clause 7.2 allows for some construction tolerance – 3mm for vertical abutments and 5mm for rounded or bevelled abutments.	BCA Clause D4D2 & D4D3 AS 1428.1 Clause 7.2
	55	All door controls are to be located between 900–1100mm above the level of the finished floor.	AS 1428.1 Clause 13.5.3
	56	Snib locking/privacy devices throughout the project (not just to toilets) must have a minimum length of 45mm from the centre of the spindle.	AS 1428.1 Clause 15.2.9(b)
	57	All accessible doors require door handles and controls to be in accordance with AS 1428.1 Clause 13.5. 'D' type lever door handles are preferred with a clearance behind the handle of 35 – 45mm.	AS 1428.1 Clause 13.5
	58	The force to open, close or hold open accessible doors must not exceed 20N – please note that hinged doors with closers should be provided adjustable closers that are compatible with the selected door to ensure that the force to open the door does not exceed 20N.	AS 1428.1 Clause 13.5.2(e)
	59	Manual door controls (i.e. staff security swipe card readers) are to be mounted in appropriate locations in accordance with Clause 13.5.3 of AS 1428.1. Specifically, they are to be located between 900mm and 1250mm (if only required to be touched) or 900mm to 1200mm (if required to be pushed) above the finished floor level and no closer than 500mm from any internal corner and 1000mm to 2000mm from the hinged door leaf (in any position).	AS 1428.1 Clause 13.5.3
	60	<p>All accessible doorways require a minimum luminance contrast of 30% provided between at least one of the following:</p> <ul style="list-style-type: none"> ▪ Door leaf and door jamb; ▪ Door leaf and adjacent wall; ▪ Architrave and wall; ▪ Door leaf and architrave; or ▪ Door jamb and adjacent wall. 	AS 1428.1 Clause 13.1



Category	Description	Legislative Requirement
	61 Sliding door furniture to comply with the diagram below (and all other door provisions of Appendix A): 	AS 1428.1 Clause 13.2
Electrical – General	62 All light switches and other door controls (e.g. BGA’s, card readers, security swipe card readers, push-to-exit buttons, automatic door controls, etc.) along accessible paths of travel need to be located in accordance with AS 1428.1 Clauses 14.1 and 13.5.3.	AS 1428.1 Clause 13.5.3, Clause 14.1
	63 Push-button door controls to have a minimum diameter of 25mm.	AS 1428.1 Clause 13.5.4
	64 All electrical switches and controls to be located between 900mm and 1100mm AFFL and no closer than 500mm from an internal corner. This includes heating and cooling thermostats, alarm panels, intercom systems and ceiling fan controls (or the like).	AS 1428.1 Clause 14.1
Accessible Change Rooms	65 Any spaces that have change rooms must provide an accessible change room with the minimum dimensions of 1540mm x 2070mm clear turning space within the room/cubicle.	AS 1428.1 Clause 6.5.3
	66 The doorway into the facility must also comply with all door access provisions discussed in this Appendix.	AS 1428.1 Clause 13
Accessible WC & Showers	67 All unisex accessible WCs and showers need to satisfy the minimum dimensions of AS 1428.1 Clause 15. Please note that all required fixtures and fittings associated with the accessible WC & shower will also need to satisfy AS 1428.1 Clause 15 (i.e. WC pan & seat, WC backrest, flushing controls, toilet roll holder, grabrails, washbasin, taps, mirror, shelf, dispensers, clothes hanging hooks, sanitary disposal units, switches, GPOs, shower recess, floor wastes, shower seat, shower head, shower grabrails, etc.).	AS 1428.1 Clause 15
Ambulant Toilets	68 Ambulant toilets need to satisfy the minimum dimensions of AS 1428.1 Clause 16. Please note that all required fixtures and fittings associated with the ambulant toilets will also need to satisfy AS 1428.1 Clause 16 (i.e. door controls, WC pan & seat, toilet roll holder, grabrails, clothes hanging hooks, etc.).	AS 1428.1 Clause 16
Electrical - Accessible Sanitary Facilities and Accessible	69 Push-button controls or push pad switches to have a minimum diameter of 25mm.	AS 1428.1 Clause 14.2
	70 Rocker action and toggle switches in accessible sanitary facilities or any accessible accommodation rooms are to have a minimum dimension of 30mm x 30mm.	AS 1428.1 Clause 14.2

Category	Description		Legislative Requirement
Rooms within Class 1b, 3 or 9c	71	Power-points (GPOs) in accessible sanitary facilities are to be located between 600mm and 1100mm AFFL and no closer than 500mm from an internal corner (AS 1428.1 Clause 14.2).	AS 1428.1 Clause 14.2
Hearing Augmentation Systems	72	Any public address system or inbuilt amplification system must be provided a hearing augmentation system in accordance with the BCA D4D8. If this is the case, we recommend that you engage an experienced hearing augmentation system consultant and/or an acoustics consultant to ensure that a suitable and effective system is specified and installed. Quite often, systems may prove ineffective due to being the wrong type for the operational needs, or overlapping of systems from adjoining areas. Hearing augmentation system options include: <ul style="list-style-type: none"> ▪ Audio frequency induction loop systems (hearing aid T switches can be used, or receivers provided to those without a T switch on their hearing aids). ▪ Frequency modulation (individual receivers worn by users to receive radio waves (i.e. FM)). ▪ Infra-red (individual receivers worn by users to receive infra-red beam by a direct line of sight). 	BCA Clause D4D8
	73	If an FM or Infra-Red transmitter / receiver system is proposed, the system must cover at least 95% of the floor area of the room or space served by the inbuilt system, and a minimum number of Receivers must be provided in a ratio depending on the number of people who may be accommodated in the room (AS 1428.5 recommends these to be either headphones, stetoclips, earbuds/ear pieces and approximately 20% as neck loops). Ultimately, the building surveyor must determine the number of people to be accommodated within each space, which will determine the required number of receivers within each space.	BCA Clause D4D8
	74	Any screen or scoreboard capable of displaying public announcements must be capable of supplementing any public address system (other than a public address system used for emergency warning purposes) (BCA Clause D4D8).	BCA Clause D4D8
Hearing Augmentation Systems & Sound Field Amplification Systems	75	A Sound Field Amplification System (SFAS) itself is not a hearing augmentation system, rather it should be considered as an enhancement to a hearing augmentation system.	AS 1428.5 Clause 4.7.2
	76	There are clear benefits of a Sound Field Amplification System (SFAS) for people with a mild hearing loss. But there are some recognised limitations with the use of a SFAS for people with moderate hearing loss, where a hearing augmentation system (an Assisted Listening System) such as a modulated FM system, loop system or infra-red system	AS1428.5 Clause 4.1, Clause 4.7.2

Category	Description	Legislative Requirement
	may be a better solution. This is recommended in AS 1428.5 (AS 1428.5 also says that a SFAS is not a replacement for an Assisted Listening System (ALS)).	
Preferred Hearing Augmentation System for Commercial Meeting Rooms and Training Spaces	77 Where Hearing Augmentation is required under BCA D4D8(a)(i)&(ii) for commercial meeting rooms and training spaces up to 900sqm we recommend Phonak Roger Touchscreen Microphone. The Roger Touchscreen can be used as a desk microphone for persons with hearing aids to hear the presenter, or used as a transmitter for amplified devices. It connects directly to children’s hearing aid receivers supplied to them by Australian Hearing. The Touchscreen can be used as a portable system or provided as a room solution.	BCA Clause D4D8
	78 For more information regarding this system contact: Hearing Loop Australia ph: 1300 669 721 or visit: www.hearingloop.com.au	
Luminance Contrast & Architectural Finishes	79 Luminance contrast is defined as ‘the light reflected from one surface or component, compared to the light reflected from another surface or component’. It is not the difference in the colour or the colour contrast, but the difference in the light reflective values (LRVs) of each colour.	AS 1428.1 Clause 4.11
	80 Ensure minimum luminance contrast requirements (%) can be achieved, as required to the following elements: <ul style="list-style-type: none"> ▪ Doorways – 30%; ▪ Contrast nosing strips against stairway treads – 30%; ▪ Warning TGSIs against background surface: <ul style="list-style-type: none"> ○ 30% for integrated type (i.e. TGSIs tiles in one colour) ○ 45% for discrete type (i.e. those cones that are individually installed and a different colour to the floor surface, but are in one colour throughout each cone) ○ 60% for composite-discrete type (i.e. cones that are individually installed and a different colour to the floor surface, but the uppermost surface of each cone is a differing colour to the sides); ▪ Visual indicators to glazing against background surface within 2m of glazing on the opposite side – 30%; ▪ Accessible WC pan seat against background surface (e.g. pan, wall or floor) – 30%; and ▪ Signage against background surface on which the signage is mounted, and tactile characters and symbols against background surface on which the characters are mounted – 30%. 	AS 1428.1 Clause 6.6, Clause 11.1(f)(h), Clause 13.1, Clause 15.2.3(e) AS/NZS 1428.4.1 Clause 2.2(b) BCA Spec 15

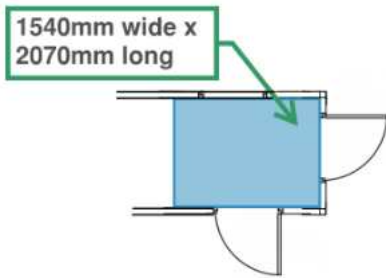
Category	Description	Legislative Requirement
Passenger Lifts	81 The lift is to comply with BCA Clause E3D7 and include all of the relevant access provisions outlined within BCA Clause E3D8, which includes the following provisions: <ul style="list-style-type: none"> ▪ All lifts which travel more than 12m require a lift car floor dimension of not less than 1400mm x 1600mm ▪ All lifts which travel less than 12m require a lift car floor dimension of not less than 1100mm x 1400mm ▪ At least one 600mm long handrail complying AS 1735.12 ▪ Automatic clear door opening of 900mm minimum complying with AS 1735.12 ▪ Passenger protection system complying with AS 1735.12 Clause 4.2 ▪ Lift car and landing control buttons complying with AS 1735.12 Clause 7 ▪ Lift car buttons are required on the left and right side of the lift car where it has a width or depth less than 1400mm; ▪ Lighting in accordance with AS 1735.12 Clause 10 ▪ 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 ▪ For lifts serving more than 2 levels add the following <ul style="list-style-type: none"> ○ Automatic audible information within the lift car to identify the level each time the car stops, which needs to be in a range between 20–80 dbA at a maximum frequency of 1500Hz. ○ Audible and visual indication at each lift landing to indicate the arrival of the lift car, which needs to be in a range between 20–80 dbA at a maximum frequency of 1500Hz. ○ (note the building surveyor may advise you that one lift car is required to be a minimum of 2000mm long to accommodate a stretcher facility) 	AS 1735.12 Clause 2, Clause 4.2, Clause 7, Clause 5.3.1, Clause 10 BCA Clause E3D7 BCA Clause E3D8
Platform Lifts	82 The lift is to comply with BCA E3D7 and include all of the relevant access provisions outlined within BCA Table E3.6b, which includes the following provisions: <ul style="list-style-type: none"> ▪ All lifts which travel more than 12m. - Lift floor dimension of not less than 1400mm x 1600mm (note the building surveyor may advise you that one lift car is required to be a minimum of 2000mm long to accommodate a stretcher facility) ▪ All lifts which travel less than 12m. - Lift floor dimension of not less than 1100mm x 1400mm ▪ Handrail complying with the provisions for a mandatory handrail in AS 1735.12 	AS 1735.12 Clause 2, Clause 4.2, Clause 7, Clause 5.3.1, Clause 10 BCA Clause E3D7 BCA Clause E3D8

Category	Description	Legislative Requirement
	<ul style="list-style-type: none"> ▪ Automatic clear door opening of 900mm minimum complying with AS 1735.12 ▪ Passenger protection system complying with AS 1735.12 Clause 4.2 ▪ Lift car and landing control buttons complying with AS 1735.12 Clause 7 ▪ Lift car buttons are required on the left and right side of the lift car where it has a width or depth less than 1400mm (BCA Table E3.6 (b) & AS 1735.12 Clause 7.2.1) ▪ Lighting in accordance with AS 1735.12 Clause 10 ▪ 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 	
Signage	<p>83 All statutory accessible signage needs to be designed and installed in accordance with BCA Specification D4D7/Premises Standards and AS 1428.1 Clause 8.</p>	<p>AS1428.1 Clause 8 BCA Spec 15</p>
	<p>84 Typical statutory accessible signage is as follows:</p> <ul style="list-style-type: none"> ▪ On the cubicle door of each ambulant toilet; ▪ On the wall adjacent to the latch-side of the outer air-lock door to the male toilets; ▪ On the wall adjacent to the latch-side of the outer air-lock door to the female toilets; ▪ On the wall adjacent to the latch-side of the door of the unisex accessible toilet door (showing 'LH' or 'RH' indicating the transfer direction); ▪ To identify a room with a hearing augmentation system, identifying the type of system, the area covered and if any receivers are being used, where the receivers can be obtained; ▪ Directional signage at a non-accessible entrance to direct a person to the location of the nearest accessible entrance; and ▪ Directional signage at a bank of toilets without an accessible facility to direct a person to the location of the nearest accessible facility. 	<p>AS 1428.1 Figure 9 BCA Clause D4D7</p>
	<p>85 Accessible signage is required adjacent to each required exit door (provided with an exit sign above). Each sign must indicate the word "Exit" and description of the level, for example "Level G". An example from 'Braille Sign Supplies' is provided below:</p>	<p>BCA Clause D4D7 BCA Spec 15</p>

Category	Description	Legislative Requirement
	 	
	86 There must also be further confirmation on the provision for Signage for each area covered by Hearing Augmentation and where the equipment is available. Signage should be: <ul style="list-style-type: none"> ▪ At the entrance to an area covered by a Hearing Augmentation system (including the external recreation area); ▪ If areas do not have full coverage a map must be provided on the sign showing the location of the Hearing Augmentation coverage; ▪ At any reception counter or location where Hearing Augmentation Receivers can be collected for use and that the 'T' switch on a hearing aid can be used; ▪ Signage must comply with AS 1428.1, AS 1428.5 and D34D8 of the BCA, and include the International Symbol of Hearing; and ▪ Signage must state the type of Hearing Augmentation system used (i.e. FM) and where to collect the Receivers. 	AS 1428.1 Clause 8 AS 1428.5 BCA Spec 15
Stairs	87 Stairways are considered to be a 'stair' when they have 2 or more steps and there is less than 750mm between the steps.	BCA Clause D3D14 (a)(a) Clause D3D15
	88 Stairs that intersects at a property boundary shall be set back a minimum of 900mm.	AS 1428.1 Clause 11.1(a)
	89 Stairs that intersects at a corner shall be set back to ensure the handrails do not project into the transverse path.	AS 1428.1 Clause 11.1(b)
	90 Handrails shall be provided on both sides of the stairs with appropriate handrail terminations/extensions in accordance with AS 1428.1 Clauses 11.2, Clause 12(g), Figure 26(B), Figure 26C and Figure 28.	AS 1428.1 Clause 11.2, Clause 12(g), Figure 26(B), Figure 26C, Figure 28
	91 The minimum clear width between handrails must be 1000mm.	AS 1428.1 Figure 26(A)
	92 Handrails shall be installed directly above the nosing of the stairway tread or plane of the finished floor of the walkway, ramp or landing.	AS 1428.1 Clause 12(d)
	93 Provide TGSIs in accordance with AS/NZS 1428.4.1 to top and bottom landings of stairs.	AS/NZS 1428.4.1 Clause 2.4
	94 Contrasting strips required between 50mm and 75mm in depth, extending across the full width of each stair nosing with a minimum luminance contrast of 30% to the	AS 1428.1 Clause 11.1(f)(g)

Category	Description			Legislative Requirement
		background in accordance with AS 1428.1 Clause 11.1(f) and Clause 11.1(g).		
	95	Stairs not to have open or translucent risers.		AS 1428.1 Clause 11.1(c)
	96	Stairs to have first ascending stair tread (or going) set back one tread width from the mid-landings.		AS 1428.1 Figure 28(a)
	97	Stair nosings must not have any projections or overhangs and nosing profiles need to be appropriately designed.		AS 1428.1 Clause 11.1(d)(e)
	98	Winder steps are not permitted within a required stairway in a commercial building.		BCA Clause D3D14(1)(h)
	99	A slip-resistant surface is required on all stair treads and landings. This must comply with BCA Table D3D15, and this would include consideration for TGSIs on landings:		BCA Table D3D15
		Application	Surface Condition	
			Dry Rating	Wet Rating
		Tread or landing surface	P3 or R10	P4 or R11
		Nosing or landing edge strip	P3	P4
		TGSIs installed on landings	P4 or R11	P5 or R12
Stairs (Fire-Isolated Stairs and Exit Stairs)	100	Fire-isolated stairs must have contrasting strips on each stair tread.		AS 1428.1 Clause 11.1(f)(g) BCA Clause D4D4(a)(iii)
	101	Exit stairs (including fire-isolated stairs) must have at least one handrail compliant with Clause 12 of AS 1428.1.		AS 1428.1 Clause 12 BCA Clause D3D22(1)(a)
	102	Exit stairs (including fire-isolated stairs) must have handrail terminations that comply with one of the options provided in Figure 26(C) & 26(D) (they do not need to be extended 300mm horizontally like general stairways).		AS 1428.1 Figure 26(C) Figure 26(D)
	103	A slip-resistant surface is required on all stair treads and landings. This must comply with BCA Table D3D15:		BCA Table D3D15
			Application	Surface Condition
			Dry Rating	Wet Rating
		Tread or landing surface	P3 or R10	P4 or R11
		Nosing or landing edge strip	P3	P4
Warning Tactile Ground Surface Indicators (TGSIs)	104	The design of warning type TGSIs must comply with AS/NZS 1428.4.1.		AS/NZS 1428.4.1
	105	Warning type TGSIs must be installed: <ul style="list-style-type: none"> ▪ On the top and bottom landings of all ramps (between 1:14 and 1:20 grade): 300mm from the point of transition between the ramp and landing; 		AS/NZS 1428.4.1 Clause 2.5, Clause 2.6, Clause A3.2

Category	Description	Legislative Requirement
	<ul style="list-style-type: none"> ▪ On the top and bottom landings of stairways (other than fire-isolated stairways): 300mm from the vertical face of the lowest stair tread and 300mm from the edge of the upper most stair tread (where the handrails are continuous within the stairway); ▪ On intermediate landings of all stairs (other than fire-isolated stairways), where the handrails are non-continuous: 300mm from the vertical face of the ascending stair tread and 300mm from the edge of the descending stair tread; ▪ Where there is an overhead hazard with less than 2000 mm clearance and no other suitable barrier is provided, such as a handrail/kerbrail arrangement or seating; ▪ Where there are suspended hazards that protrude into a continuous accessible path of travel, such as a telephone booth, drinking fountain, fire hose reel or the like. These fixtures should be designed (and installed) off the continuous accessible path of travel to avoid the use of TGSIs; ▪ Where there is vehicle impact hazard and no other suitable barrier is provided, such as a handrail/kerbrail arrangement; ▪ 300mm back from life-threatening hazards where serious falls may occur, such as on railway platforms or wharves; ▪ On kerb ramps at pedestrian crossing points (300mm from hazard); and ▪ In conjunction with directional TGSIs, to indicate that a point of importance has been reached, such as: <ul style="list-style-type: none"> ○ the location of a bus sign or tram stop; or ○ the location of a change of direction on a pedestrian crossing island. 	BCA Clause D4D9
106	Note: TGSIs should not be installed unnecessarily, as they do not compensate for poor design. Good design practice should minimize the need for TGSIs.	AS/NZS 1428.4.1 Clause A3.1
107	<p>To achieve compliance with the BCA/Premises Standards Clause D4D9, Warning type TGSIs are not required for the following:</p> <ul style="list-style-type: none"> ▪ Step ramps (being not steeper than 1:10, not longer than 1900mm and no higher than 190mm rise). ▪ In fire-isolated stairways and ramps. ▪ Kerb ramps (without a risk or vehicle hazards). ▪ Swimming pool ramps. ▪ A Class 3 hostel or nursing home for the aged, a Class 3 or Class 9c residential aged care building or a Class 9a health care building (where handrails are provided a domed raised button to warn people who are blind or 	BCA Clause D4D9

Category	Description	Legislative Requirement
	have a vision impairment that they are approaching the ramp or stairs).	
Turning Spaces	108 For a turn between 60° to 90° either a space of greater than 1500 x 1500mm or a 500 x 500mm splay must be provided.	AS 1428.1 Clause 6.5.1, Clause 6.5.2
	109 A turning space not less than 1540mm wide x 2070mm long is required within 2m of the end accessways: 	AS 1428.1 Clause 6.5.3 BCA Clause D4D4(c)
Visual Indicators	110 Solid and non-transparent visual indicators are required on glass doors, side panels or other glazed areas, without a horizontal transom member, that are capable of being mistaken for doorways or opening. This includes any glazing being frosted or translucent.	AS 1428.1 Clause 6.6
	111 The dimensions for installation of the visual indicators should be provided on each applicable window in the drawings, or a typical detail should be prepared (i.e. 75mm wide for the full width, with the lower edge of the band located 900-1000mm above finished floor level).	AS 1428.1 Clause 6.6
Wall Set-Outs	112 The dimensions specified within the access standards (some of which are mentioned within this report), such as clear widths of accessible paths/corridors and door circulation spaces, need to be clear of any fixtures or fittings in accordance with AS 1428.1 Clause 6.3. Therefore, builders' wall set outs need to take into account all fixtures and finishes, skirting boards, architraves etc and not rely upon 'stud to stud' dimensions.	
Architectural Drawings	113 Internal elevations of all accessible toilets, accessible showers and ambulant toilets, should be provided in the next stage of documentation to ensure compliance with all requirements of Clause 15 and Clause 16 of AS 1428.1. Elevations should indicate relevant dimensions of fixtures and fittings. Drawings should make reference to AS 1428.1. Accessible toilets must be provided in combinations of RH and LH transfer options.	