



CODE PERFORMANCE

Access Report

Project –

51 Jamison Road, Kingswood NSW
Boarding House Development

Design Phase –

Development Application Phase

Date - April 2019
For - Liquid Design
Ref - 19058 – R1.1

Code Performance Pty Ltd
Suite C101, 16 Wurrook Circuit,
Caringbah NSW 2229

ABN: 79 205 189 287
E: admin@codeperformance.com.au
W: www.codeperformance.com.au

TABLE OF CONTENTS

| | |
|--|----|
| TABLE OF CONTENTS..... | 1 |
| 1.0 INTRODUCTION..... | 3 |
| 1.1 General..... | 3 |
| 1.2 Purpose..... | 3 |
| 1.3 Documentation Relied Upon..... | 3 |
| 1.4 Exclusions..... | 3 |
| 1.5 BCA Assessment Data..... | 3 |
| 2.0 TECHNICAL ASSESSMENT & COMMENTARY..... | 4 |
| 2.1 General..... | 4 |
| 2.2 SECTION D – ACCESS & EGRESS..... | 4 |
| Part D3 – Access For People With Disabilities..... | 4 |
| 2.3 SECTION E – SERVICES & EQUIPMENT..... | 8 |
| Part E3 – Lift Installations..... | 8 |
| 2.4 SECTION F – HEALTH & AMENITY..... | 8 |
| Part F2 – Sanitary & Other Facilities..... | 9 |
| 3.0 CONCLUSION..... | 10 |

Amendment Schedule

| Prepared By: | Reviewed By: | Comments | |
|---|--|--------------------------------|----------|
|  Nick Cribb Access Consultant Cert IV Access Consulting (IATA) B. Construction Mgmt (Hons) (UON) |  Michael Eisenhuth Director Cert IV Access Consulting (IATA) Grad Dip Build Surv. (UWS) Dip. Health & Bld. Surv. (TAFE) Associate Member – ACAA | Final report issued to client. | |
| | | Version | Date |
| | | R1.0 – DRAFT | 22.03.19 |
| R1.1 | 09.04.19 | | |

The intellectual content contained within this report remains the property of Code Performance Pty Ltd and has been prepared and may only be used for the development / buildings being the subject of this report.

1.0 INTRODUCTION

1.1 General

This Access Report has been prepared at the request of Liquid Design for the purpose of completing an assessment of the DA architectural design documentation associated with the proposed boarding house development located at 51 Jamison Road, Kingswood NSW.

1.2 Purpose

The purpose of this report is to identify the compliance status of the architectural design documentation against the following –

- Relevant accessibility related 'deemed-to-satisfy' (DTS) requirements of Building Code of Australia (BCA) 2016. These provisions are generally contained within Part D3 and Clause(s) E3.6 & F2.4 of the code.
- Accessibility related Australian Standards as referenced by BCA 2016, as relevant to this project and as directly nominated in the report.
- The Disability (Access to Premises – Building) Standards 2010 (*Premises Standards*).

1.3 Documentation Relied Upon

Architectural plans prepared by *Liquid Design*, as follows –

| Issue | Drawing # | Date | Drawing Title |
|-------|-----------|----------|----------------------------|
| D | A2000 | 28.03.19 | Proposed Basement |
| G | A2001 | 28.03.19 | Proposed Ground Floor Plan |
| G | A2002 | 28.03.19 | Proposed Level 1 Plan |

1.4 Exclusions

The content of this report relates only to the matters directly nominated in this report and does not assess / include the following –

- Any parts of the BCA / standards not directly referenced in this report.
- Disability Discrimination Act 1992 (*DDA focuses on results. Does not offer prescriptive compliance options*).
- Work Health & Safety considerations.
- Services / equipment operating capacity / design.
- Local planning policies and/or guidelines, other than those directly identified.
- Does not constitute construction approval or give consideration to the application of the Building Act 1993.

1.5 BCA Assessment Data

Listed below are our understanding of relevant BCA classification(s) in relation to the subject building / part. BCA Consultant / Building Surveyor shall have the final call in determining classifications.

BCA Building Classification(s): Class 3 - Boarding House

2.0 TECHNICAL ASSESSMENT & COMMENTARY

2.1 General

The following summarises the compliance status of the architectural design in terms of the DTS accessibility provisions of BCA 2016, as are principally contained within Part D3 and Clauses E3.6 & F2.4 of the code.

Alongside each clause heading; one of four compliance categories is provided, as follows –

- Complies – BCA design compliance is achieved.
- Does not comply – A BCA DTS compliance departure is noted. Resolution options are provided.
- N/A – Not Applicable or not directly relevant. Detail offered for application if/as relevant.
- Design Detail – Compliance commentary is provided. Such should not be considered deficiencies, but matters for consideration by the design team / assessment authority at relevant / nominated stages of design.

BCA Interpretation Note(s) –

- i. Readily moveable furniture has been treated as indicative. The person/s responsible for furnishing the building (parts) should ensure their furnishing layout/s do not cause AS1428.1 circulation deficiencies.
- ii. *Slip-resistant floor surface/s* - BCA 2016 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.

2.2 SECTION D – ACCESS & EGRESS

Part D3 – Access For People With Disabilities

BCA Clause D3.1 - General building access requirements

Buildings and parts of buildings must be accessible as required by Table D3.1 and as summarised below:

Class 3

Access is required from a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units (SOU), to the entrance doorway of each SOU on that level and to/ within any area for use in common by the residents.

Where a passenger lift is installed, access is required to the entrance doorway of each SOU, and to/ within spaces for use in use in common by the residents; located on levels served by the lift.

Class 3 – sole-occupancy units (SOU's)

Not more than 2 required accessible SOU's can be located next to each other.

Based on the number of units in this building (being 16), 2 x accessible rooms are required.

Design Detail

Access is required to and throughout the building in accordance with AS 1428.1-2009 (except where exempt by Clause D3.4), to the following extent –

- To the entry doorway of all SOU's on Ground and Level 1;
- To and within all common areas;
- To and within two (2) accessible SOU's.

Two (2) accessible SOU's are proposed to satisfy the number and location requirements of this clause.

Design detail is required as follows:

- The doors to the garbage room are recessed ~300mm. Doors are to be centred in wall to allow 150mm recess either side. Adjustment required at CC stage.

Compliance is readily achievable at construction certificate phase.

A summary of AS 1428.1-2009 requirements for accessways is provided at **Appendix 1** to assist the project team during construction.

BCA Clause D3.2 – Access to Buildings

An accessway must be provided to a building required to be accessible:

- From the main points of pedestrian entry at the allotment boundary; and
- From another accessible building connected by a pedestrian link; and
- From any required accessible carparking space on the allotment.

An accessway must be provided through the principal pedestrian entrance, and:

- through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and
- in a building with a floor area more than 500m², a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

Doors on an accessway having multiple leaves must have a clear opening width of not less than 850mm for a single leaf.

Note

Accessways are provided to the building in number, nature and location to satisfy the following criteria:

- From the main point of pedestrian entry at the allotment boundary; and
- From the accessible carparking space on the allotment; and
- through not less than 50% of all pedestrian entrances including the principal pedestrian entrance.

Compliance is readily achievable at construction certificate phase.

A summary of AS 1428.1-2009 requirements for accessways is provided at **Appendix 1** to assist the project team during construction.

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

In a building required to be accessible:

- every ramp & walkway (*except fire-isolated*) must comply with Clause 10 of AS1428.1-2009;
- every stairway (*except fire-isolated*) must comply with Clause 11 of AS1428.1-2009;
- all fire-isolated stairways are required to comply with Clause 11.1(f) and (g) and Clause 12 of AS 1428.1-2009.
- all threshold ramps to doors are to comply with Clause 10.5 of AS 1428.1-2009 ie. maximum rise of 35mm, maximum length of 280mm and maximum gradient of 1 in 8.
- accessways must have passing spaces complying with AS1428.1 at max 20m intervals where a direct line of sight is not available; and
- turning spaces complying with AS1428.1 within 2m of the end of accessways where it is not possible to continue travelling along the accessway, and at max. 20m intervals along the accessway.
- Carpet pile height or pile thickness dimension, carpet backing thickness dimension and their combined dimension shall be 11mm, 4mm & 15mm respectively.

Design Detail

Design detail is required as follows:

- Non-fire isolated stairs to be provided with full access features to accord with Clause 11 & 12 of AS1428.1-2009.
- All fire-isolated stairways are required to comply with Clause 11.1(f) and (g) and Clause 12 of AS 1428.1-2009.

- Walkways are to comply with Clause 10 of AS1428.1-2009.
- Entrance ramp is to be provided with full access features to accord with Clause 10 of AS1428.1-2009.
Note: the handrail extension to the base of the entrance ramp is indicated to be 240mm in lieu of 300mm – design adjustment required at CC stage.
- The lower entrance ramp indicates a width of ~960mm between handrails – minor adjustment required at CC stage.
- The lower landing of the entrance ramp has minor circulation space encroachments via the ramp handrail – minor adjustment required at CC stage.

Compliance is readily achievable at construction certificate phase.

A summary of AS 1428.1-2009 requirements for stairs is provided at **Appendix 1** to assist the project team during construction.

BCA Clause D3.4 – Exemptions

An area where access would be inappropriate because of the particular purpose for which the area is used, or would pose a health or safety risk for people with a disability; is not required to be fully accessible.

Info

The following parts of the building are considered to require a reduced extent of access:

- Elec / Comms
- Plant

BCA Clause D3.5 – Accessible Carparking

Accessible carparking spaces complying with AS2890.6-2009 must be provided in accordance with Table D3.5.

Design Detail

One (1) accessible carparking space is provided to satisfy the requirements of this clause.

Design detail is required as follows:

- Accessible carparking space is to accord with AS2890.6-2009.

BCA Clause D3.6 – Signage

Accessible buildings must have signage to comply with AS1428.1-2009 and as follows –

- braille and tactile signage incorporating the international symbol of access or deafness, must identify each sanitary facility and space with hearing augmentation system; and
- 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;
- 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;
- signage in accordance with AS1428.1 must be provided for accessible unisex sanitary facilities to identify left or right handed use;
- signage to ambulant accessible facility must be on the door of the facility;
- directional signage where a pedestrian entrance is not accessible,
- directional signage where a bank of sanitary facilities are not provided with an accessible sanitary facility.

Design Detail

Signage shall be installed in this project as necessary, but shall include as a minimum:

- 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, as includes braille and tactile signage.
- signage in accordance with AS1428.1-2009 must be provided for accessible unisex sanitary facilities to identify left-handed / right-handed use.

- 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.
- directional signage where a pedestrian entrance is not accessible.

All signage is to be design detailed to comply with the relevant requirements of Specification D3.6.

Compliance is readily achievable at Construction Certificate phase.

BCA Clause D3.7 – Hearing Augmentation

Hearing augmentation system must be provided where an inbuilt amplification system (other than emergency warning) is installed.

N/A No inbuilt amplification system is indicated on the plans.

BCA Clause D3.8 – Tactile Ground Surface Indicators (TGSIs)

Accessible buildings must have TGSIs complying with Sections 1 & 2 of AS/NZS1428.4.1-2009 to warn blind or vision impaired people of approaching stairways (other than fire-isolated), escalators, ramps (other than fire-isolated, step or kerb ramp), any overhead obstruction less than 2m above floor level and an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building.

Design Detail

TGSIs are to be provided to –

- any overhead obstruction less than 2m above floor level.
- top and bottom of all new stairways and ramps (except fire-isolated stairways and step/kerb/threshold ramps).
- where an accessway meets a vehicular way adjacent to any pedestrian entrance to a building.

Compliance is readily achievable at Construction Certificate phase.

BCA Clause D3.9 – Wheelchair seating spaces in Class 9b assembly buildings

Where fixed seating is provided in a Class 9b assembly building, wheelchair seating spaces complying with AS 1428.1 must be provided in accordance with Table D3.9.

N/A The building does not contain any Class 9b parts.

BCA Clause D3.10 – Swimming Pools

Not less than one means of accessible water entry/exit in accordance with Specification D3.10 for each swimming pool required by Table D3.1 to be accessible (Refer to Table D3.1 'Class 3' requirements).

An accessible entry/exit must be by means of –

- a fixed or movable ramp and an aquatic wheelchair; or
- a zero-depth entry at a maximum gradient of 1:14 and an aquatic wheelchair; or
- platform swimming pool lift and an aquatic wheelchair; or
- a sling-style swimming pool lift.

Latching devices on gates and doors forming part of a swimming pool safety barriers need not comply with AS 1428.1

N/A No swimming pool proposed.

BCA Clause D3.11 – Ramps

On an accessway; a series of connected ramps must not have a combined vertical rise of more than 3.6 m; and a landing for a step ramp must not overlap a landing for another step ramp or ramp.

Complies Ramps do not have a combined vertical rise of more than 3.6m. Nil step ramps are proposed.

BCA Clause D3.12 – Glazing on an Accessway

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.

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.

Design Detail Any such glazing on an accessway must be clearly marked in accordance with AS 1428.1-2009.
Compliance is readily achievable at Construction Certificate phase.

2.3 SECTION E – SERVICES & EQUIPMENT

Part E3 – Lift Installations

BCA Clause E3.6 – Passenger Lifts

Every passenger lift must:

- be one of the types identified in Table E3.6a, subject to the limitations on use specified in the Table; and
- have accessible features in accordance with Table E3.6b; and
- not rely on a constant pressure device for its operation if the lift car is fully enclosed.

Design Detail The proposed passenger lift shall have the following features –

- i. Handrail complying with the mandatory handrail provisions of AS1735.12,
- ii. Lift floor dimensions not less than 1,100mm x 1,400mm where the lift vertical travel is less than 12m.
- iii. Minimum clear door opening complying with AS1735.12,
- iv. Passenger protection system complying with AS1735.12,
- v. Lift landing doors at the upper landing,
- vi. Lift car and landing control buttons complying with AS1735.12,
- vii. Lighting in accordance with AS1735.12,
- viii. 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.

The lift shall comply with the above and AS1428.1-2009.
Consideration should be given to lift control buttons and the like (no less than 500mm from an internal corner).

Compliance is readily achievable at Construction Certificate phase.

2.4 SECTION F – HEALTH & AMENITY

Part F2 – Sanitary & Other Facilities

BCA Clause F2.4 – Accessible Sanitary Facilities

In a building required to be accessible:

- Accessible unisex sanitary compartments must be provided as per Table F2.4(a),
- Accessible unisex showers must be provided as per Table F2.4(b),
- At each bank of toilets where there is one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females.
- An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate disposal of sanitary towels.
- Circulation spaces, fixtures and fittings of all accessible sanitary facilities must comply with AS1428.1.
- 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.
- An accessible unisex facility must be located so that it can be entered without crossing an area reserved for one sex.

Design Detail

One (1) accessible sanitary facility is provided in each accessible SOU (two (2) total) to satisfy the requirements of this clause.

One (1) common area accessible sanitary facility is provided to satisfy the requirements of this clause.

Design detail is required as follows:

- All fixtures and fittings to the accessible sanitary facilities are to accord with AS 1428.1-2009 Clause 15.

Compliance is readily achievable at Construction Certificate phase.

A summary of Clause 15 of AS 1428.1-2009 is provided at Appendix 1 to assist the team during construction.

3.0 CONCLUSION

This report identifies the compliance status of the design with the relevant accessibility related DTS requirements of BCA 2016.

The outcome of the report highlights that the design contains some BCA DTS non-compliances, however, these issues can be resolved via design changes or BCA Performance Solutions as nominated at Part 3.0 of this report.

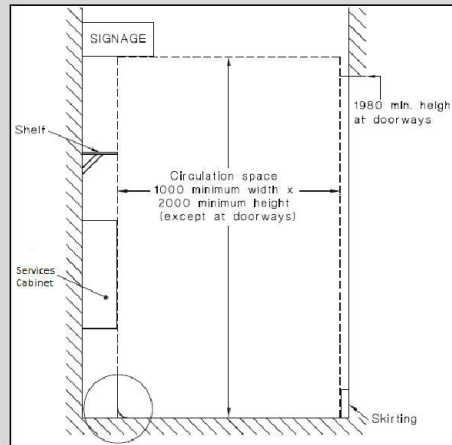
Appendix 1 – Technical Specification(s)

BCA Clause D3.1 –

Summary of AS1428.1-2009 Requirements for accessways

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,
- (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.

Floor or ground surfaces on continuous accessible paths of travel and circulation spaces –

- (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 –
 - $0 \pm 3\text{mm}$ vertical change in level – see Figure 1
 - $0 \pm 5\text{mm}$ 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.

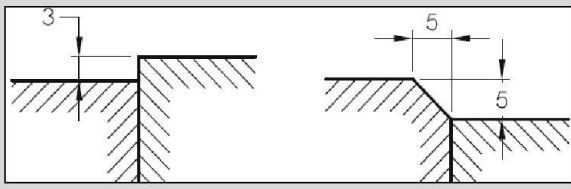


Figure 1

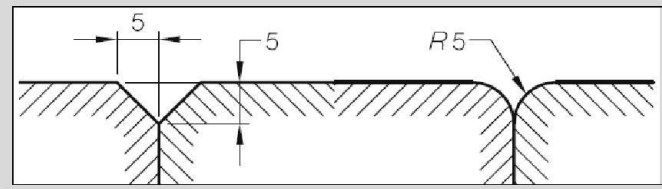


Figure 2

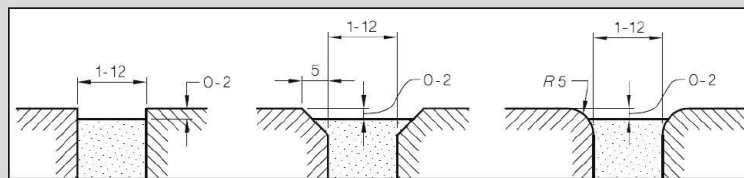


Figure 3a – For continuous paving units – level surfaces

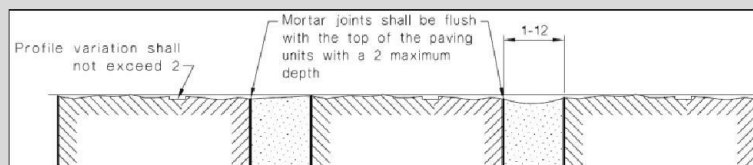


Figure 3b – For continuous paving units – irregular surfaces

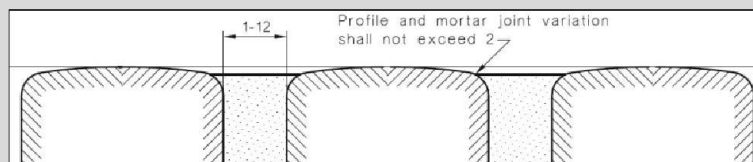


Figure 3c – For continuous paving units – domed surfaces

- (iii) Where carpets or any soft flexible materials are used on the ground or floor surface –
 - 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.
- (iv) 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 bevelled, 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 bevelled.

Switches and Controls –

- (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 in accordance with Clause 14.2 in accessible residential sole-occupancy units.

BCA Clause D3.3 –

Summary of AS1428.1-2009; 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 10.5 - 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).

BCA Clause F2.4 –

Summary of AS1428.1-2009 requirements for Accessible & Ambulant Sanitary Facilities

Water Taps – Must have:

- Taps shall have lever handles, sensor plates or other similar control,
- Lever handles to be min. 50mm clear from adjacent surface,
- Where hot water is provided, the water to be delivered through the mixing spout.

WC pan clearances

- WC pan clearance including set-out, seat height and seat width as per Figure 38 of AS1428.1.

Seat – As follows:

- full round type with minimal contours,
- be securely fixed when in use,
- seat fixings that create lateral stability,

- load rated to 150kgs,
- min. luminance contrast of 30%.

Backrest – As follows:

- be capable of withstanding 1100 N,
- height to the lower edge of backrest to the top of the WC pan of 120mm to 150mm,
- vertical height of 150mm-200mm and a width of 350mm and 400mm,
- front edge of the centre of the backrest to be at an angle of 95° to 100°.

Flushing control

- Flushing controls shall be user activated, either hand operated or automatic. Hand-operated controls to comply with Figure 40, or on the centre-line of the toilet within the vertical limit zone. Controls within this zone shall not be within the area required for grabrails.
- Controls shall be proud of the surface and activate the flush before being level with the surrounding surface.

Toilet paper dispenser

- Toilet paper dispenser to be located within zone specified in Figure 41. Dispenser shall not encroach on required grabrail clearances.

Grabrails

- Concealed, high level cisterns or flush valves require a continuous grabrail across the rear wall and the side wall closest to the pan as per Figure 42.
- Low-level non-concealed cistern or flush valves require the grabrail to terminate each side of the cistern as per Figure 42.

Circulation space – Shall be as per Figure 43 of AS1428.1-2009, except for the following intrusions:

- Toilet paper dispenser,
- Grabrails,
- Washbasins with 100mm intrusion,
- Hand dryers and towel dispensers,
- Soap dispensers,
- Shelves,
- Wall cabinets with 150mm intrusion, mounted between 0.9m and 1.25m,
- Clothes hanging devices,
- Portable sanitary disposal units (Figure 43),
- Other wall mounted fixtures with 150mm intrusion, mounted between 0.9m and 1.25m.
- The overlapping of circulation space shall be in accordance with Clause 15.6.

Baby change tables

- Where installed, baby change tables shall not encroach into the required circulation space when in the folded position and have a max height of 820mm with clearance underneath of min. 720mm when open.

WC doors

- To be either hinged or sliding,
- Outward-opening doors shall have a mechanism to hold in the closed position without the use of a latch,
- Doors provided with an in-use indicator and a bolt or catch. If fitted with a snib, the snib handle is to be min. length of 45mm from the centre of the spindle.
- Latch mechanism are to be openable from the outside in the case of an emergency.
- Force required as per Clause 13.5.2(e),
- Door handles and hardware as per Clause 13.5.

Washbasins for unisex accessible sanitary facilities

- A hand-washing facility shall be provided inside the toilet cubicle

Washbasins – As follows:

- Shall be located inside the cubicle,
- Washbasin outside pan circulation,
- Water taps as per Clause 15.2.1,
- Exposed hot water supply pipes to be insulated or located so as not a hazard,
- Projection of washbasins from wall and taps, bowl and drain outlet as per Figures 44 (A) and (B),
- Water supply pipes and waste outlets not to encroach on required clear space under basin.
- Each washbasin fixture to have unobstructed circulation space as per Figure 46, or Figure 45 for SOU's.

Mirrors

- Mirror to be located above or adjacent to washbasin.
- Where provided, a vertical mirror with a reflective surface not less than 350mm wide to extend from a height not less than 0.6m to not more than 1.85m.
- In an accessible residential unit, the mirror to be centred over the washbasin.

Shelves – To be provided adjacent to washbasin, as follows:

- A vanity top at a height of 800mm-830mm and min. width of 1200mm and depth of 300mm-400mm without encroaching circulation space,
- A separate fixture, within any circulation spaces at a height of 0.9m-1.0m, and external to all circulation space 0.79m-1.0m.

Soap dispensers, towel dispenser and similar fittings

- Soap and towel dispensers and hand dryers shall be operable by one hand and installed so the operative component or outlet between 0.9m and 1.1m and no closer than 0.5m from an internal corner.

Clothes-hanging devices

- A clothes-hanging device shall be installed 1.2m to 1.35m high and not less than 0.5m from an internal corner.

Sanitary disposal unit

- Where provided, sanitary disposal units to be as per Figure 43 for portable units or 0.5m from the pan for recessed units.

Switches and general purpose outlets

- Where provided near the washbasin, switches and GPOs to be located as per Clause 14 and as close to the shelf as possible.

Showers

- Shower recesses and circulation space to a height not less than 0.9m as per Figure 47. Grabrails, shower hose fittings, taps, soap holder, shelf and seat are the only fixtures permitted in these spaces.

Circulation spaces in accessible sanitary facilities

- Circulation spaces in accessible sanitary facilities shall be in accordance with Clause 15.2.8 and Figures 43-47 and 50.
- Circulation spaces, including door circulation space, may be overlapped.
- Fixtures shall not encroach circulation space except:
 - a. Washbasin in WC circulation as per Figure 43,
 - b. Washbasin in shower circulation as per Figure 50,

c. Washbasin in door circulation as per Figure 51(A) and 51(B).

- Clearances beneath washbasin as per Clause 15.3.

Summary of AS1428.1-2009 requirements for Ambulant Sanitary Facilities

General

- Ambulant sanitary facilities shall be in accordance with Figures 53(A) and 53(B).

Grabrails

- Grabrails shall be installed in accordance with Clause 17 and Figure 53(A).

Doors

- Doors to sanitary compartments for people with ambulant disabilities shall have openings with a minimum clear width of 700 mm, and shall comply with Figure 53(B).
- Doors shall be provided with an in-use indicator and a bolt or catch. Where a snib catch is used, the snib handle shall have a minimum length of 45 mm from the centre of the spindle. In an emergency, the latch mechanism shall be openable from the outside.

Coat hook

- A coat hook shall be provided within the sanitary compartment and at a height between 1350 mm to 1500 mm from the floor.