

Access Report

### Lower Hunter Medical Centre 271 New England Highway RUTHERFORD NSW

For: Eleven Sixty Six Ref: LP\_22178

#### **Document Control**

This report has been prepared based on the documentation available and time allocated to conduct the review. All reasonable attempts have been made to identify key compliance matters.

#### **Revision Summary:**

| prepared by:  | Draft      | 21 June 2022      |
|---------------|------------|-------------------|
| Lindsay Perry | Revision 1 | 21 September 2022 |
|               |            |                   |

#### Contact Details:

Lindsay Perry Access Pty Ltd PO Box 453 NEW LAMBTON NSW 2305 lindsay@lpaccess.com.au 0418 909 180

#### Copyright:

This content of this report, including any intellectual property, remains the property of Lindsay Perry Access Pty Ltd and cannot be reproduced without permission.

#### Clarifications:

This report is limited to items within drawings listed in this report only.

Construction is to be in accordance with the recommendations made in this access report to ensure compliance.

Any dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered during construction to account for wall linings and the like.

#### Definitions:

The following terminology has been used throughout this report:

Compliant | compliance with current accessibility legislation has been achieved Compliant Configuration | circulation and spatial planning requirements are compliant Capable of compliance | compliance is achievable through detailed design Not Yet Compliant | circulation and spatial planning requirements have not yet been met To be addressed during detailed design stage |details not available at DA stage To be confirmed | inadequate information is provided to determine compliance

#### **Executive Summary**

Development application documentation for the Lower Hunter Medical Centre located at 271 New England Highway Rutherford, has been reviewed against current accessibility legislation.

The following table summarises our findings.

| ltem<br>No.                                   | Description                       | Compliance Status                      |  |  |  |
|---|-----------------------------------|--|--|--|--|
| The Disability (Access to Premises) Standards |                                   |  |  |  |  |
| 5.1   | Access Code                       | Refer BCA commentary                   |  |  |  |
| 5.2   | New Work & The Affected Part      | Compliant                              |  |  |  |
| Access  | Access and Approach               |  |  |  |  |
| 6.1   | Allotment Boundary to Entrance    | Compliant                              |  |  |  |
| 6.2   | Accessible Carparking to Entrance | Compliant                              |  |  |  |
| 6.3   | Accessible Carparking             | Compliant configuration                |  |  |  |
| 6.4   | Accessible Entrance               | Compliant configuration                |  |  |  |
| Interior                                      | -                                 |  |  |  |  |
| 7.1   | Extent of Access Generally        | Compliant                              |  |  |  |
| 7.2   | Circulation Areas                 | Compliant                              |  |  |  |
| 7.3   | Doorways                          | Compliant configuration                |  |  |  |
| 7.4   | Hearing augmentation at Service   | To be addressed during detailed design |  |  |  |
|   | Counters                          |  |  |  |  |
| 7.5   | Hearing Augmentation              | To be addressed during detailed design |  |  |  |
| 7.6   | Exempt Areas                      | None specified                         |  |  |  |
| 7.7   | Floor Finishes                    | To be addressed during detailed design |  |  |  |
| 7.8   | Carpet                            | To be addressed during detailed design |  |  |  |
| 7.9   | Controls                          | To be addressed during detailed design |  |  |  |
| 7.10  | Visual Indication to Glazing      | To be addressed during detailed design |  |  |  |
| 7.11  | Tactile Indicators                | To be addressed during detailed design |  |  |  |
| 7.12  | Signage                           | To be addressed during detailed design |  |  |  |
| Sanitar                                       | ry Facilities                     |  |  |  |  |
| 8.1   | Distribution                      | Compliant                              |  |  |  |
| 8.2   | Accessible Toilets                | Capable of compliance                  |  |  |  |
| Vertica                                       | I Circulation                     |  |  |  |  |
| 9.1   | Passenger Lift                    | Capable of compliance                  |  |  |  |
| 9.2   | Stairs                            | Capable of compliance                  |  |  |  |
| 9.3   | Slip Resistance (Ramps & Stairs)  | To be addressed during detailed design |  |  |  |
|   |                                   |  |  |  |  |

We consider that the drawings presented for assessment, for the purposes of a development application, generally comply with current statutory requirements.

Accessibility requirements are included in Appendix 1 of this report to guide the detailed design. Best Practice options are provided within Appendix 2 and we encourage their implementation into the design.



The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry Access Pty Ltd. This may differ from that of other consultants.

701

LÍNDSAY PERRY Access Consultant (ACAA Accreditation No. 136) Certificate IV in Access Consulting Internationally Certified Access Consultant ICAC BE-02-106-18 Registered Architect NSW 7021 Livable Housing Assessor 20047 | NDIS SDA Assessor SDA00049



#### Project Background

The project is a new medical centre that provides consulting rooms with associated facilities at the ground floor level and a training hub / offices at the first floor. Carparking is provided on the site with direct access to the building entrance.



Figure 1 | Proposed Development

#### 2 Reviewed Documentation

Documentation prepared by Skelcon has been reviewed as follows:

| dwg no. | drawing name                     | revision |
|---------|----------------------------------|----------|
| DD000   | Cover Page                       | 02       |
| DD001   | 3D Perspectives                  | 02       |
| DD100   | Site Analysis Plan               | 02       |
| DD101   | Site Plan                        | 03       |
| DD102   | Strata Plan                      | 02       |
| DD200   | Existing Floor / Demolition Plan | 03       |
| DD201   | Ground Floor Plan                | 04       |
| DD202   | First Floor Plan                 | 04       |
| DD300   | Elevations Sheet 1               | 03       |
| DD301   | Elevations Sheet 2               | 03       |
| DD400   | Sections Sheet 1                 | 02       |
| DD401   | Sections Sheet 2                 | 02       |
| DD500   | Shadow Diagrams                  | 02       |
| DD501   | Shadow Diagrams                  | 02       |
| DD502   | Shadow Diagrams                  | 02       |
|         |                                  |          |

#### 3 Council Requirements

Maitland City Council DCP (2011) Part 3 Design Guidelines contains requirements for accessibility. The overall principles are as follows:

- a) To ensure all new developments are constructed to accommodate the needs of those people who may use the services that the proposed land use may provide.
- b) To ensure people with a disability enjoy the same level of access, both in gaining entry to and moving within, those buildings which meet a high public demand. c) To ensure those land uses which provide a service which is likely to attract a larger proportion of people with a disability, adequately provide for the needs of these people.



- c) That the provisions of continuous access path of travel to and within a building is the primary principle.
- d) The secondary principle is the provision of car parking and other amenities.
- e) To ensure that all existing commercial buildings in Maitland are upgraded to meet the primary principle of the Plan, over time.

The requirements of the DCP have been addressed it the design of the building as demonstrated throughout this report.

#### 4 Legislation

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The National Construction Code Building Code of Australia Volume 1 2019, Amendment 1 (BCA)
  - Section D2.14 / D2.15 / D2.17 landings, thresholds and slip resistance
  - Section D3 Access for People with Disabilities
  - Section E3.6 Passenger Lifts
  - Section F2.4 Accessible Sanitary Facilities
- Australian Standard AS1428.1 (2009) Amendment 1 & 2, Design for Access and Mobility
- Australian Standard AS1428.2 (1992) Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities
- Australian Standard AS1428.4.1 (2009) Amendment 1 Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators
- Australian Standard AS2890.6 (2009) Parking Facilities Off street carparking For People with Disabilities.
- Australian Standard AS1735.12 Lifts, escalators and moving walks: Lifts for persons with a disability

A summary of the requirements of relevant legislation follows.

#### The Disability Discrimination Act 1992

The DDA requires independent, equitable, dignified access to all parts of the building for all building users regardless of disability. The DDA makes it unlawful to discriminate against a person on the grounds of disability.

#### The Disability (Access to Premises) Standards

Any application for a building approval for a new building or upgrade of an existing building triggers the application of the Premises Standards.

The Premises Standards include an **Access Code** written in the same style as the Building Code of Australia. It has a number of Performance Requirements that are expressed in broad terms and references a number of technical Deemed-to-Satisfy Provisions.

#### The National Construction Code / Building Code of Australia (Volume 1)

The Building Code of Australia (BCA) is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia. The BCA is a performance-based code and compliance can be met through satisfying the deemed-to-satisfy provisions or by meeting the prescribed performance requirements.

The BCA for Class 5 buildings requires access for people with disabilities to and within all areas normally used by the occupants.

#### AS1428 - Design for Access and Mobility

The AS1428 Suite provides design requirements for accessibility generally, covering all types of disabilities. AS1428.1 and AS1428.4.1 are referenced by the NCC / BCA.

- Australian Standard AS1428.1 (2009) Amendment 1 & 2, Design for Access and Mobility contains access requirements that are mandatory for the provision of access for persons with a disability and is referred by the BCA
- Australian Standard AS1428.2(1992) Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities provides enhanced and best practice requirements that will minimize DDA risk
- Australian Standard AS1428.4.1 (2009) Amendment 1 Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators

#### AS2890.6 - Off-street Carparking for People with Disabilities

AS2890.6 (2009) applies to the carparking areas generally.

#### AS1735- Lifts, escalators and moving walks

AS1735.12 (1992) contains requirements for passenger lifts for persons with a disability.

#### 5 The Disability (Access to Premises) Standards

Any application for a building approval for a new building or upgrade of an existing building triggers the application of the Premises Standards. The Premises Standards include an Access Code written in the same style as the Building Code of Australia. Additionally, it offers a number of concessions for existing buildings as outlined below.

#### 5.1 Access Code

The Premises Standards include an Access Code written in the same style as the Building Code of Australia.

#### Compliance Summary:

Refer to BCA requirements throughout subsequent sections of this report.

#### 5.2 New Work and The Affected Part

The Disability (Access to Premises – Buildings) Standards apply to **...a new part, and any affected part, of a building,** to the extent that the part of the building is...a Class 3, 5, 6, 7, 8, 9 or 10 building (Clause 2.1).

New work is defined as follows (Clause 2.1 (4)):

— An extension to the building or a modified part of the building.

An affected part is defined as follows (Clause 2.1 (5)):

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

#### Compliance Summary:

Compliant

Commentary:

Due to the extent of building works proposed, the affected part and new work provisions have been met in the proposed design.

#### 6 BCA | Access and Approach + External Areas Generally

The approach to the building needs to be addressed when considering access for persons with a disability. The BCA has three requirements for the approach to the building for persons with a disability. An accessible path of travel is required to the building entrance from the allotment boundary at the main points of pedestrian entry, from accessible carparking areas and from any adjacent and associated accessible building.

In this instance, the approach to the building has been considered as follows:

- from the allotment boundary at the pedestrian entrance along Arthur Street to the building entrance.
- from the accessible carparking area to the building entrance.



#### NEW ENGLAND HIGHWAY

#### 6.1 Approach from Allotment Boundary

The BCA requires that a continuous accessible path of travel be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

#### Compliance Summary:

Compliant

#### Commentary:

An accessible path of travel is provided to the building entrance from the allotment boundary along Arthur Street via the driveway area.



#### 6.2 Approach from Accessible Carparking

The BCA requires that a continuous accessible path of travel be provided from the accessible carparking areas to the main entrance.

#### Compliance Summary:

Compliant

Commentary:

An accessible path of travel is provided from the carparking area to the building entrance.

#### 6.3 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development. The number of accessible spaces within a Class 5 building requires one (1) space for every one hundred (100) carparking spaces or part thereof.

#### Compliance Summary:

Compliant configuration

Commentary:

An accessible car parking space with associated shared area is provided within the general carparking area.

Overall configuration offers compliance with current accessibility requirements.

#### 6.4 Accessible Entrance

In a building required to be accessible, an accessway must be provided through the principal pedestrian entrance, and not less than 50% of all pedestrian entrances including the principal pedestrian entrance.

#### Compliance Summary:

Compliant configuration

Commentary:

An automatic sliding door is provided for entrance to the building. The use of this type of door is encouraged as it maximizes access for persons with a disability to the tenancy.

## **φ**

#### 7 BCA | Interior

The building is over a two (2) levels and provides a medical centre. The client / public areas are provided at the ground floor level with staff area at the upper level. A lift facilitates access between levels.

#### 7.1 Extent of Access Generally – BCA

For a commercial development, access for people with disabilities is required to and within all areas normally used by the occupants.

#### Compliance Summary:

Compliant

Commentary:

There are three (3) hot desks provided at the ground floor level. Wheelchair access is not available to these desks. We note that the main admin office, that accommodates wheelchair access is located within close proximity to the hot desks. These are controlled staff areas and are not publicly accessed.

#### 7.2 Circulation Areas

BCA (Clause D3.3) requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 90° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

Within corridor areas, 1500x1500mm is required to facilitate a 90° turn by a wheelchair. This must be accommodated within accessible areas.

Compliance Summary: Compliant

#### 7.3 Doorways Generally

AS1428.1 has requirements for doorways within the accessible path of travel to enable independent access for people using a wheelchair.

#### Compliance Summary:

Compliant configuration

#### Commentary:

Doorways within the accessible path of travel are provided with circulation areas in keeping with current accessibility requirements.

#### 7.4 Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems at service counters where the user is screened from the service provider. We note that this may not be relevant to this project.

With the implementation of "sneeze screens" as a COVID-19 mitigation measure, the provision of hearing augmentation at service counters has become a critical accessibility issue for people with hearing impairments.

#### Compliance Summary:

To be addressed during detailed design.

#### 7.5 Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems within auditoriums, meeting rooms and the like where an inbuilt amplification system, other than the one used for emergency warning is installed. The following systems can be used:

- An induction loop to at least 80% of the floor area;
- A system requiring the use of receivers (infrared or the like) to not less than 95%.

#### Compliance Summary:

To be addressed during detailed design.

#### 7.6 Exempt Areas

BCA Clause D3.4 does not require access for people with disabilities to areas that would be inappropriate due to the particular use of the area or would pose a health and safety risk. This includes the path of travel to these areas.

#### Compliance Summary:

None specified

#### 7.7 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for beveled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details.

#### Compliance Summary:

To be addressed during detailed design stages

#### 7.8 Carpet

BCA requires a maximum carpet pile height of 11mm and carpet backing thickness not exceeding 4 mm.

#### Compliance Summary:

To be addressed during detailed design stage.

### μ

#### 7.9 Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14.

#### Compliance Summary:

To be addressed during detailed design stage.

#### 7.10 Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level per AS1428.1, Clause 6.6.

#### Compliance Summary:

To be addressed during detailed design stage.

#### 7.11 Tactile Indicators

For a building that is 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 stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway ,meeting a vehicular way if there is no kerb or kerb ramp (BCA D3.8).

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

#### Compliance Summary:

To be addressed during detailed design stage.

#### 7.12 Signage

Signage to identify sanitary facilities, hearing augmentation and required exits are to be provided in accordance with BCA Clause D3.6. This includes provision of the International Symbol for Access or International Symbol for Deafness as appropriate. Signage to comply with AS1428.1 (2009), Clause 8.

#### Compliance Summary:

To be addressed during detailed design stage.

**φ** 

#### 8 BCA | Sanitary Facilities

The BCA / Access Code for Buildings (Clause F2.4) require the provision of sanitary facilities catering for people with disabilities.

#### 8.1 Distribution of Accessible Sanitary Facilities

Accessible sanitary facilities are required as follows – these are general requirements and not project specific.

- A unisex accessible toilet at each level that provides sanitary facilities. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.
- At each bank of toilets where there is one or more toilets in additional to a unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS1428.1 must be provided for use by males and females (not required within this development).
- A unisex accessible shower is required where showers are required by F2.3. (not required within this development).
- A unisex accessible adult change facility must be provided in some public buildings (not required within this development).

#### Compliance Summary:

Compliant

#### Commentary: A unisex accessible sanitary compartment is provided at each level of the building.

#### 8.2 Unisex Accessible Sanitary Compartments

Unisex accessible sanitary compartments are required within this development.

#### Compliance Summary:

Capable of compliance

Commentary:

A unisex accessible sanitary compartment is provided at each level of the building.

Overall room dimensions are conducive to compliance with current accessibility legislation (no fixtures shown).

Ensure both left-and right-handed facilities are provided.

### 9 BCA | Vertical Circulation

A lift and stairs provide the means of access between levels of the building. They are proposed in a central location near the building entrance.

#### 9.1 Passenger Lift

Where passenger lifts are provided within a building to facilitate access between levels, they must meet the minimum requirements of the NCC / BCA with regard to the internal lift car size, which is dependent upon the total vertical distance that the lift travels.

#### Compliance Summary:

Capable of compliance

Commentary:

A lift is provided for access between levels. The overall size of the lift shaft is capable of accommodating a lift car of adequate dimensions for compliance with BCA.

#### 9.2 Stairs

AS1428.1 has access requirements for all stairs other than fire isolated egress stairs and is applicable in this instance.

#### Compliance Summary:

Capable of compliance

Commentary:

Stairs are provided adjacent to the lift. Ensure provision of handrails with extensions both sides, tactile indicators top and bottom and contrasting non-slip nosing strips to treads.

The stair should be designed so that the handrail extensions do not protrude into the traverse path of travel – AS1428.1 (2009) requires a setback of 600mm from an internal corridor.

#### 9.3 Slip Resistance (Stairs and Ramps)

The BCA defines the following slip resistance requirements for stairs and ramps:

| Application                  | Surface Conditions |           |
|------------------------------|--------------------|-----------|
|                              | Dry                | Wet       |
| Ramp steeper than 1:14       | P4 or R11          | P5 or R12 |
| Ramp steeper than 1:20 but   | P3 or R10          | P4 or R11 |
| not steeper than 1:14        |                    |           |
| Tread or Landing surface     | P3 or R10          | P4 or R11 |
| Nosing or landing edge strip | P3                 | P4        |
|                              |                    |           |

#### Compliance Summary:

To be addressed during detailed design stage.

### 10 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the Lower Hunter Medical Centre located at 271 New England Highway Rutherford. Spatial planning and general arrangements of facilities will offer inclusion for all building users.

Disability is often defined as any limitation, restriction or impairment which restricts everyday activities and has lasted or is likely to last for at least 6 months. Disabilities can be very varied. They can be physical, cognitive, intellectual, mental, sensory, or developmental. They can be present at birth or can occur during a person's lifetime. They can also be permanent or temporary. In Australia, almost one in five people – 4.3 million – have a disability with one in three having severe or profound core activity limitation.

Equity and dignity are important aspects in the provision of access to buildings for all users. With respect to people with a disability, equity and dignity are sometimes overlooked in the construction of new buildings or refurbishment works. The design approach needs to maintain a high level of equity for people with disabilities and meet the performance requirements of the BCA. The performance requirements adopt two main concepts in the provision of access for people with a disability being <u>to the</u> <u>degree necessary</u> and <u>safe movement</u>. Both of these concepts need to be achieved within the context of equitable and dignified access.

In this respect, a wide range of disabilities needs consideration and a compromise reached between requirements of different disability groups. Measures need to be implemented to ensure inclusion of all users, not a particular disability group in isolation.

We consider that the drawings presented for assessment, for the purposes of a development application, demonstrate that compliance with current statutory requirements affecting accessibility is achievable subject to detailed design at the construction certificate stage (refer to Appendix 1 for requirements).

### **φ**

Appendix 1 | Accessibility Requirements

The following accessibility requirements are to be incorporated into the detailed design to ensure compliance of the built form.

#### Accessible Carparking

Access requirements for the accessible carparking are as follows and should be addressed during preparation of the construction certificate documentation.

- a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks. For a single space, a total width of 4800mm is required.
- b. Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.
- c. The maximum allowable crossfall of accessible carparking area to be 1:40. This crossfall applies both parallel and perpendicular to the angle of parking.
- d. For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7.
- e. Designated accessible carparking is to be identified using the International Symbol for Access (ISA) between 800and 1000mm high placed as a pavement marking in the centre of the space between 500-600mm from its entry point. The perimeter of the space is to be identified by an unbroken yellow & slip resistant line 80-100mm wide (except where there is a kerb or wall)
- f. Shared space to be identified using yellow slip-resistant & unbroken stipes 150 to 200mm wide with spaces 200 to 300mm between stripes. Stipes to be at an angle of 45° to the side of the space.

#### Accessible Entrances

Access requirements for entrances are as follows.

- a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.
- b. Doors are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel.
- c. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces refer to Figure 6.



- d. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)
- e. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.
- f. Where double door sets are provided, one door leaf is to be capable of being held in the closed position to provide door opening widths and circulation to comply with AS 1428.1.
- g. For a best practice approach to access, and to assist people with a vision impairment locate the entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.

#### Circulation Areas Generally

BCA (Clause D3.3) requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

Turning spaces 1540mm wide by 2070mm long are required within 2m of the end of corridors to enable a wheelchair to turn through 90° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

Within corridor areas, 1500x1500mm is required to facilitate a 90° turn by a wheelchair. This must be accommodated within accessible areas.

#### Doorways

Access requirements for doorways within the accessible path of travel are as follows:

a. Doorways within the accessible path of travel to have a minimum clear opening width of 850mm (AS1428.1(2009), Clause 13.2). We recommend the use of a 920 leaf door as a minimum to achieve adequate clear width.

For double doors, the operable leaf must achieve this clear opening width to facilitate single leaf operation.

- b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.
- c. Doors between indoor and outdoor spaces to have a level threshold for seamless transition.



- d. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- e. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5). Note that within a childcare centre, this is applicable to the unisex accessible sanitary facilities only.
- f. Door handles and related hardware shall be able to be unlocked and opened with one hand per AS1428.1 (2009), Clause 13.5.1. The handles shall enable a person who cannot grip to operate the door without their hand slipping from the handle. We recommend the use of lever handles.
- g. For manual controls to automatic doorways, buttons to be located no closer than 500mm from an internal corner and between 1000mm and 2000mm from the hinged door leaf or surface mounted sliding door in the open position. Height of controls to be 900-1100mm affl.
- h. Doorways to external areas to achieve a level threshold as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces.
- i. Doorways to have operational forces per AS1428.1 (2009), Clause 13.5.2. A maximum allowable force of 20N is required to operate the door.

#### Hearing Augmentation

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems within auditoriums, meeting rooms and the like where an inbuilt amplification system, other than the one used for emergency warning is installed. An induction loop to at least 80% of the floor area is required.

The hearing augmentation system is to be identified using the International Symbol for Deafness.

#### Hearing Augmentation at Service Counters

For buildings that are required to be accessible, the BCA (Clause D3.7) requires hearing augmentation systems at service counters where the user is screened from the service provider. We note that this may not be relevant to this project.

With the implementation of "sneeze screens" as a COVID-19 mitigation measure, the provision of hearing augmentation at service counters has become a critical accessibility issue for people with hearing impairments.

The hearing augmentation system is to be identified using the International Symbol for Deafness.

#### **Floor Finishes**

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for bevelled edges) as part of the accessible path of travel. Refer to AS1428.1(2009), Clause 7.2 for further details.

#### Carpet

BCA requires that the pile height or pile thickness does not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.

#### Controls

Controls such as light switches, GPOs, alarm keypads, card swipes, etc are to be located within the accessible height range of 900-1100mm above the floor level and not within 500mm of an internal corner to comply with AS1428.1(2009), Clause 14.

#### Visual Indication to Glazing

Provide decals to all full height glazing that can be mistaken for a doorway to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.

#### **Tactile Indicators**

For a building that is 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 stairway (other than a fire isolated stair); an escalator; a moving walkway; a ramp (other than a fire isolated ramp, step ramp, kerb ramp or swimming pool ramp); and in the absence of a suitable barrier, an overhead obstruction less than 2m above the floor level or an accessway ,meeting a vehicular way if there is no kerb or kerb ramp (BCA D3.8).

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background color (45% for discrete tactile indicators and 60% for discrete two-tone tactile indicators).

#### Signage

Access requirements for signage are as follows. Note that this does not include general wayfinding signage.

- a. Braille and tactile signage formats as outlined within BCA Specification D3.6 that incorporate the international symbol of access or deafness, as appropriate, in accordance with AS 1428.1 must be provided to identify the following:
  - a sanitary facility, except a sanitary facility associated with a bedroom in a Class 1b building or a sole-occupancy unit in a Class 3 or Class 9c building
  - a space with a hearing augmentation system

### φ.

- each door required by E4.5 to be provided with an exit sign and state level
- an accessible unisex sanitary facility and identify if the facility is suitable for left or right handed use
- an ambulant accessible sanitary facility 1 and be located on the door of the facility
- where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access to direct a person to the location of the nearest accessible pedestrian entrance
- where a bank of sanitary facilities is not provided with an accessible unisex sanitary facility, directional signage incorporating the international symbol of access 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
- b. Braille and tactile components of the sign to be located not less than 1200mm and not higher than 1600mm affl.
- c. Signage to be located at the latch side of the doorway with the leading edge of the sign 50-300mm from the architrave. Where this is not possible, the sign can be located on the door.

Sample signs are as follows. These are examples only – ensure selected signage complies with BCA Specification D3.6 including provision of Braille locator for multiple lines of text and characters.



#### Unisex Accessible Sanitary Compartment

Access requirements for the accessible toilet facilities are as follows. For compliance with AS1428.1(2009), the minimum room dimensions of the accessible toilet are to be 1900x2300mm plus additional area for the handbasin. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.

- a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.
- b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.



c. Where more than one unisex accessible toilet is provided within the building, they should be in a mirrored configuration to allow for both left and right handed use.

#### WC Pan:

- a. Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.
- b. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- c. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.
- d. Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (eg pan, wall or floor) and remain in the upright position when fully raised.
- e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

#### Basin:

- f. For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.
- g. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.

#### Door:

- h. Doorways to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility – for details refer to AS1428.1, Figure 31.
- i. Door hardware to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

#### Controls:

j. Controls such as light switches within the accessible toilet facilities to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1(2009), Clause 14. Controls should be located not less than 500mm to a corner.

#### **Passenger Lifts**

The following access requirements apply to the lifts. These requirements are for disabled access only and do not include requirements for stretchers.

- a. Lift is to comply with AS1735.12 and be fully automatic as required by the BCA, Clause E3.6.
- b. Minimum internal dimensions of the lift car to be 1100mm wide x 1400mm deep BCA, Clause E3.6 for a lift that travels less than 12m.
- c. Clear opening of the lift door to be minimum 900mm.
- d. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- e. All lift control buttons are to be in the accessible height range of 900-1100mm affl and have a minimum 30% luminance contrast to the background colour. This includes buttons within the lift car and at each public lift lobby. All buttons are to be provided with information in Braille and tactile formats.
- f. Auditory / voice cues are to be provided within the lift car to assist persons with a vision impairment.
- g. Series of door opening devices that will detect a 75mm diameter rod across the door opening between 50 mm and 1550mm above the floor level.
- h. Emergency hands-free communication, including a button that alerts a call centre of a problem, a light to signal that the call has been received by the call centre and a light indicating assistance is being dispatched.

#### Stairs – Internal

Access requirements for public access stairs are as follows and should be addressed during construction to ensure compliance.

- a. Stair construction to comply with AS1428.1, Clause 11.1.
- b. Stairs to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open risers.
- c. Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS2418.1 Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.
- d. Provide handrails, with extensions, to both sides of the stair (AS1428.1, Clause 11.2). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as



arthritis. Handrails should be continuous around the landings where possible.

Handrails are required on both sides of the stair to cater for left and right-handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

- e. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- f. Stair nosings shall not project beyond the face of the riser.
- g. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D3.8 and AS1428.4.1.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. For discrete tactile indicators, 45% luminance contrast is required (60% where two-tone indicators are used).

#### **Slip Resistance**

The BCA defines the following slip resistance requirements for stairs and ramps:

| Application                  | Surface Conditions |           |
|------------------------------|--------------------|-----------|
|                              | Dry                | Wet       |
| Ramp steeper than 1:14       | P4 or R11          | P5 or R12 |
| Ramp steeper than 1:20 but   | P3 or R10          | P4 or R11 |
| not steeper than 1:14        |                    |           |
| Tread or Landing surface     | P3 or R10          | P4 or R11 |
| Nosing or landing edge strip | P3                 | P4        |
|                              |                    |           |

### **φ**

Appendix 2 | Best Practice Options for Consideration

## **β**

We recommend a best practice approach to accessibility that goes beyond minimum standards and embraces the intent of the DDA. The following measures will promote inclusion and participation for all users.

#### Automatic Entrance Doors

The provision of automatic sliding doorways maximizes access for people with a disability. Further, delivery drivers, people carrying parcels and the elderly also benefit from the provision of automatic doors.

Automatic doors provide safe, convenient access for everyone, regardless of age or ability in keeping with universal design principles. They also offer COVID-19 mitigation measures, reducing the transfer of germs and bacteria.

#### Accessible Service Counters

The provision of an accessible section of counter will benefit people using wheelchairs and people of short stature.

AS1428.2 contains access requirements for service counters and recommends the height of the counter be between 750mm ( $\pm$ 20) and 850mm ( $\pm$ 20) above the finished floor level and have foot and knee clearance under the counter. The minimum width of an accessible counter and clearance below is recommended as 900mm.

#### Luminance Contrast

Luminance contrast assists people with a vision impairment to navigate the built environment. Mandatory items that require luminance contrast are tactile indicators, accessible toilet seats and doorways as outlined in other sections of this report. The following can also be provided as a best practice measure to ensure ease of use:

- Minimum 30% luminance contrast between floors and walls or between walls and skirting boards;
- Minimum 30% luminance contrast between the ground surface and obstructions such as columns, bollards and street furniture;
- To assist people with a vision impairment, locate the building entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.
- Minimum 30% luminance contrast between the floor and the entrance mat (this allows people with vision impairment to locate the entrance;
- Minimum 30% luminance contrast between walls and handrails.

#### Visual Indication to Glazing (additional measures)

To ensure full height glazing that can be mistaken for a doorway is highlighted, we recommend the provision of a "double decal" as per international precedent. This involves the provision of two (2) decal strips that have a minimum 30% luminance contrast to each other. As such, the background colour does not need to be relied upon.

#### Furniture and Joinery Hardware

The use of D-type pull handles to furniture and joinery that provide a minimum 35mm clearance between the rear face of the handle and the face of the drawer is generally recommended to promote accessibility and inclusion.

#### Wayfinding - Signage

Signs and symbols should be provided to inform all users. A signage system which informs all users is encouraged. The use of pictograms and directional cues is recommended as is the use of luminance contrast to ensure the message is clear and legible.

#### Terminology (Best-practice recommendation)

The use of positive terminology such as "accessible" should be used when referring to accessible facilities such as toilets and carparking. This term is preferable to "disabled" which is commonly used. This principle is to be adopted through the design and documentation of a project and on signage throughout the completed building.

#### **Emergency Call Button in Sanitary Compartments**

If provided, emergency call button should be located at 600+/- 20mm above the finished floor level in front of the toilet roll holder to enable ease of access for someone who has fallen off the pan. People do fall off the pan, in particular those with no or limited upper trunk control.

#### Lighting and Glare

Minimum interior lighting levels should generally consider AS1428.2 (1992) Clause 19. Consistent lighting levels should be provided throughout, without pools of light or dark areas. AS1428.2 (1992) recommends the following minimum illumination levels:

- Entrances 150lx
- Passages and walkways 150lx
- Stairs 150lx
- Toilets and Locker rooms 200lx
- Counter tops 250lx
- General displays 200-300lx

Glare and excessively reflective surfaces should be avoided. This includes glare from windows.

www.lpaccess.com.au