



lindsay perry access

Disability Access Report

**Proposed Industrial
Development**

Meatworks Avenue
OXFORD FALLS NSW

For: Mr W Edwards
Ref: LP_19216



Executive Summary

Development application documentation for the Proposed Industrial Building located in Meatworks Avenue Oxford Falls, has been reviewed against the requirements of the Building Code of Australia 2019 and The Disability Discrimination Act 1992 with regard to access for persons with a disability. The requirements of the Disability Standards for Access to Premises (Buildings) and the Access Code for Buildings have also been addressed.

We consider that the drawings presented for assessment, for the purposes of a development application, generally comply with the above-mentioned statutory requirements. The following table summarises compliance status.

Item No.	Description	Compliance Status
Access and Approach		
4.1	Allotment Boundary to Entrance	Compliant
4.2	Accessible Carparking to Entrance	Compliant
4.3	Pathways	Capable of compliance
4.4	Accessible Carparking	Compliant
4.5	Stairs	Capable of compliance
4.6	Entrance	Capable of compliance
4.7	Tactile indicators at entrance	To be addressed during detailed design
Interior		
5.1	Extent of Access Generally	Compliant
5.2	Circulation Areas	Compliant
5.3	Doorways	Ensure door to carparking complies – circulation areas
5.4	Access to Upper Level (mezzanines)	Compliant
5.5	Exempt Areas	Compliant
5.6	Floor Finishes	To be addressed during detailed design
5.7	Visual Indication to Glazing	To be addressed during detailed design
5.8	Carpet	To be addressed during detailed design
5.9	Controls	To be addressed during detailed design
5.10	Tactile Indicators	To be addressed during detailed design
5.11	Signage	To be addressed during detailed design
5.12	Thresholds	To be addressed during detailed design
5.13	Slip Resistance	To be addressed during detailed design
Sanitary Facilities		
6.1	Distribution	Compliant
6.2	Accessible Toilets	Capable of compliance
6.3	Accessible Showers	Capable of compliance
6.4	Ambulant Toilet Cubicles	Capable of compliance
Vertical Circulation		
7.1	Lifts	Capable of compliance
7.2	Stairs	Capable of compliance
7.3	Fire Isolated Egress Stairs	Capable of compliance



This report is limited to items within drawings listed in this report only. Future alterations and additions to the building will render the recommendations in this report null and void as we cannot guarantee continued compliance where changes to the building fabric are made. A high level of maintenance is recommended to ensure continued compliance with access legislation.

All dimensions quoted throughout this report and within Australian Standards are CLEAR dimensions, not structural. This needs to be considered in the preparation of the construction certificate documentation to account for wall linings and the like.

Best practice options, as noted in the report, are not mandatory but will minimise the risk of a complaint made under the DDA.

It is estimated that one in five people in Australia have a long-term disability (Australian Bureau of Statistics – 2003). This includes physical disability, intellectual disability, and sensory impairments such as vision and hearing. It does not include those with a short-term (temporary) disability or the continuing aging population.

Lindsay Perry Access have adopted a best practice, performance-based approach to access. Assessment is based on project specifics and takes into account various factors such as site topography, heritage and existing site conditions.

The recommendations throughout this report reflect the professional opinion and interpretation of Lindsay Perry. This may differ from that of other consultants. We aim to provide practical, performance-based advice based on project specifics that will maximize access for persons with a disability to the built environment.

Lindsay Perry is a qualified Access Advisor, being an accredited within Australia (ACAA No. 136) and at the international level (GAATES No. BE-02-106-18). Lindsay Perry Access Pty Ltd carries public liability insurance, professional indemnity insurance and workers compensation insurance.

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Revision Summary

Date	Description	Revision
5 September 2019	DA Disability Access Report	draft
6 September 2019	DA Disability Access Report	1

1. Project Background

This Access Report considers the Proposed Industrial Building located in Meatworks Avenue Oxford Falls, against the requirements of the Building Code of Australia 2019 (BCA), Disability (Access to Premises) Standards 2010 and The Disability Discrimination Act 1992 (DDA), with regard to access for persons with a disability.

The building comprises Stage 2 of an overall development for the site. Stage 1 buildings do not form a part of this development application. The proposed building is provided over two (2) levels with mezzanine areas at each level within individual units. A rooftop terrace is provided as a common area. An ancillary building at the north-western end of the main building houses the common vertical circulation and amenities. Each tenancy is also provided with individual stairs between mezzanine levels and accessible sanitary facilities.



Figure 1 | Overall Stage 2 Site Plan

An access report is required as part of the development application to Northern Beaches Council.

2. Reviewed Documentation

Documentation prepared by Gelder Architects has been reviewed as follows:

- DA01 C Ground Floor Stage 2
- DA02 D Ground Floor Mezzanine Stage 2
- DA03 C Level 1 Mezzanine Stage 2
- DA04 C Roof Level Terrace
- DA05 C Upper Roof Terrace
- DA06 B Elevations
- DA07 B Elevations
- DA08 C Sections



3. Council Requirements

Northern Beaches Council requires the following to be submitted as part of the development application.

Access Reports, prepared by accredited access professionals, must be submitted to demonstrate compliance with relevant access standards for applications involving Class 2-9 buildings, and are to address access provisions of the BCA, Disability (Access to Premises - Buildings) Standards 2010 and relevant Australian Standards. Access reports are to (where appropriate):

- demonstrate equitable access to the main entrance of the building and within all areas of the building required to be accessible to the occupants of the building and the general public,
- demonstrate parking spaces, and access thereto, consistent with the relevant provisions of AS2890.6 or AS4299 (as applicable),
- demonstrate adaptable housing units (including plans in pre and post adaptable stage) in accordance with AS4299.
- demonstrate consistency with the relevant minimum requirements of the Livable Housing Design Guidelines.

Lindsay Perry is an accredited access professional, being an accredited within Australia (ACAA No. 136) and at the international level (GAATES No. BE-02-106-18).

This access report demonstrates compliance with current, applicable accessibility legislation.

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 Building Code of Australia 2019 (BCA) Section D3 – Access for People with Disabilities
- The Building Code of Australia 2019 (BCA) Section D2 (in part) – thresholds and slip resistant
- The Building Code of Australia 2019 (BCA) Section E3.6 – Lifts
- Australian Standards AS1428.1(2009) Amendment 1, AS1428.2(1992), AS1428.4(2009) – Design for Access and Mobility
- 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 **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 **DDA 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 **BCA 2019** for Class 8 buildings requires access for people with disabilities to and within areas normally used by the occupants.
- **AS1428 – Design for Access and Mobility**
Part 1 (2009) of this standard contains access requirements that are mandatory for the provision of access for persons with a disability and is referred by the BCA. Part 2 (1992) provides enhanced and best practice requirements. Requirements for tactile indicators are included in Part 4.1 (2009) of this standard.
- **AS2890.6** applies to the carparking areas generally.
- **AS1735.12** contains requirements for passenger lifts for persons with a disability.

5. Access and Approach

The approach to the building needs to be considered 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 the internal roadway which forms the allotment boundary for Stage 2;
- from the accessible carparking area to the building entrance.

We note that Stage 1 of the development provides on-grade access from the site entry to the immediate site boundaries of the Stage 2 works as documented in the access report prepared for the Stage 1 works (Accessibility Solutions (NSW) Pty Ltd, dated 15 March 2013).

4.1 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

Direct access is provided to Units 30 – 34 inclusive from the Internal Roadway at the Ground Floor Level (RL 82.50).

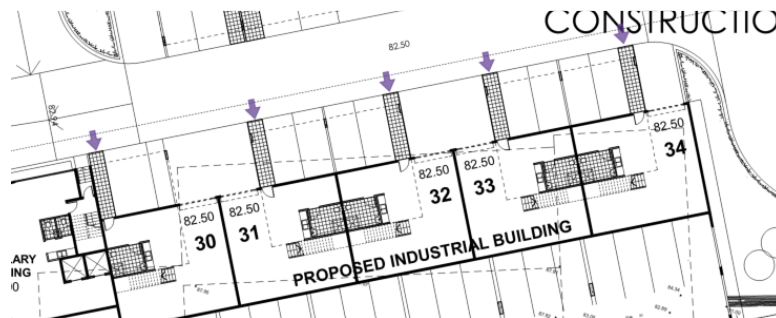


Figure 2 | Approach to Building

Access to the Ancillary Building – and units at other levels – is provided from the Internal Roadway at the Ground Floor Mezzanine Level (RL 85.00).



Figure 3 | Approach to Ancillary Building

4.2 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:

Capable of compliance

The location of accessible carparking is not indicated on the drawings however we assume it will be provided in the main carparking area. Level access is available to the lifts from carparking areas generally.



4.3 Pathways Generally

The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

Compliance Summary:

Capable of compliance

Recommendations:

For compliance with AS1428.1, the following access requirements apply and should be addressed during preparation of the construction certificate documentation to ensure compliance.

The pedestrian areas appear to be conducive to the provision of access for persons with a disability.

- a. The minimum unobstructed width of all pathways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. All pathways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, or 5mm for bevelling edges).
- c. The maximum allowable crossfall of pathways is to be 1:40.
- d. The ground abutting the sides of the pathways should follow the grade of the pathway and extend horizontally for 600mm. We note that this is not required where there is a kerb or handrail provided to the side of the pathway.
- e. Pathways to have passing bays complying with AS1428.1 at maximum 20m intervals where a direct line of site is not available. They are required within 2m of the end of the pathway where it is not possible to continue travelling along the pathway.

A passing space shall have a minimum width of 1800 for a minimum length of 2000mm. Refer to AS1428.1, Clause 6.4.

4.4 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development.

Compliance Summary:

Compliant

Two (2) accessible carparking spaces are provided at the Grond Floor Mezzanine Level. The number of spaces provided is on keeping with BCA requirements. Configuration of the spaces is per AS2890.6 (2009).

**Recommendations:**

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

- 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, 1:33 (for outdoor spaces). 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) –ground and vertical signage is required. Signage is to comply with AS1428.1.

4.5 Stairs

Stairs are provided as a part of the pedestrian access to the Ancillary Building at the Ground Floor Level. AS1428.1 has access requirements for all public access stairs and is applicable in this instance.

Compliance Summary:

Capable of compliance

Recommendations:

Access requirements for stairs are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

- a. Stairs to comply with AS1428.1(2009), Clause 11.2.
- b. Where the stair intersects the property boundary, the stair shall be set back a minimum of 900mm so that handrail extensions and tactile indicators do not protrude into the traverse path of travel.
- c. 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 riser.
- d. Provide handrails, with extensions, to both sides of the stair (AS1428.1 (2009), Clause 11.2 & 12). Handrails to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis.



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. In this instance, the use of a double handrail is encouraged so that two users can travel in opposite directions and maintain their grip on the handrail.

- 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.

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).

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

4.6 Entrances

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.

In a building with a total floor area more than 500 sqm a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

Compliance Summary:

Capable of compliance

Single swinging doorways are provided for entry to Units 30-34 inclusive at the Ground Floor Level. *We recommend that the pathways be widened to accommodate door circulation per AS1428.1 (2009) at each doorway.*

Double swinging doorways are provided for entry to the Ancillary Building at the Ground Floor Mezzanine Level.

Recommendations:

The following access requirements apply to the entrance and should be addressed during preparation of the construction certificate documentation to ensure compliance.



- a. Entrances 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 thresholds 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. Doors 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.

4.7 Tactile Indicators at Entrance

BCA Clause 3.8 (a) (v) states that 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 – in the absence of a suitable barrier – an accessway meeting a vehicular way adjacent to any pedestrian entrance to a building...if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4.

If no kerb is provided between the entrance and the driveway area, tactile indicators are required.

Compliance Summary:

To be addressed during detailed design stages.

This may be applicable to the entrances of Units 30-34 inclusive – from the roadway and Units 35-42 inclusive for the carparking area.

Recommendations:

The following access requirements apply and should be addressed during preparation of the construction certificate documentation to ensure compliance.



- a. Where no kerb is provided, install tactile indicators for compliance with BCA Clause D3.8 and AS1428.4.

Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators to be 600-800mm deep across the width of the path of travel set back 300mm from the edge of the driveway / roadway.

5 Interior

The interior areas subject to accessibility requirements extend to all areas normally used by the occupants.

5.1 Extent of Access Generally – BCA

Access for people with disabilities is required to and within all areas normally used by the occupants.

Compliance Summary:

Compliant

While stair only access is available to mezzanine levels within individual units, we consider this offers compliance with BCA as each area is less than 200sqm.

For the large commercial / industrial tenancy at the roof terrace level, we note that a lift has been provided within the tenancy.

5.2 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.

Compliance Summary:

Compliant

5.3 Doorways Generally

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

Compliance Summary:

Compliant – with the exception of the doorway between the Carparking area and Ancillary Building at the Ground Floor Mezzanine Level (RL 85.00). Inadequate latch side clearance is provided for compliance with AS1428.1.



Recommendations:

Access requirements for doorways within the accessible path of travel are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance

- 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.

- 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. Doorways to have minimum 30% luminance contrast as described in AS1428.1(2009), Clause 13.1.
- d. Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5).
- e. 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.
- f. 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.

5.4 Doorways within Vestibules and Air-locks

AS1428 has requirements for circulation areas between doorways within vestibules / airlocks to enable independent access for people using a wheelchair. Clause 13.4 requires a minimum dimension of 1450mm between doors. Where a doorway encroaches into the space, 1450mm plus the door leaf width is required.

Compliance Summary:

Compliant (applicable to common amenities at the roof terrace level)

5.5 Doorways within Vestibules and Air-locks to Ambulant Toilet Cubicles

AS1428 has requirements for circulation areas between doorways within vestibules / airlocks as part of the path of travel to ambulant toilet cubicles to enable independent access for people using a mobility aid. Figure 34(b) requires a minimum dimension of 900mm between doors. Where a doorway encroaches into the space, 900mm plus the door leaf width is required.

Compliance Summary:

Compliant (applicable to common amenities at the roof terrace level)



5.6 Access to Mezzanines within Individual Units

A mezzanine is provided within each of the units. Access to the area is via stairs. Therefore, no access is available for persons with a non-ambulant disability. Given the area of the mezzanine in each case, we consider the areas compliant per BCA.

BCA Clause D3.3(f)(ii) states that a ramp or lift need not be provided to serve a storey or level of not more than 200sqm, if the building is not more than three storeys. In this instance, the mezzanine area is less than 200sqm.

Compliance Summary:

Compliant

5.7 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.

5.8 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. This should be implemented during construction to ensure compliance.

Compliance Summary:

To be addressed during detailed design stages.

5.9 Carpet

AS1428.1 has access requirements for carpet. Where **new** carpet is used as the floor surface, pile height should not exceed 4mm. Exposed edges will be fastened to the floor surface. Carpet trims shall have a vertical face not more than 3mm high.

Compliance Summary:

To be addressed during detailed design stage.

5.10 Controls

New controls such as light switches, GPOs, alarm keypads, card swipes, intercoms, 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. This should be implemented during construction to ensure compliance.

Compliance Summary:

To be addressed during detailed design stage.



5.11 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.

Compliance Summary:

To be addressed during detailed design stage.

5.12 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).

The use of tactile indicators should be minimized through good design.

Tactile indicators are generally required to be 600-800mm deep across the width of the hazard and set back 300mm from the edge of the hazard (refer AS1428.4.1, Figure A1). 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.

5.13 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.

Recommendations:

Signage to include information in Braille and tactile signage formats as outlined within BCA Specification D3.6.

- a. Braille and tactile components of the sign to be located not less than 1200mm and not higher than 1600mm affl.
- b. Signage identifying rooms with accessible features or facilities nominated in Clause D3.6 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. This is to allow use of the Braille without obstructing pedestrian traffic through the doorway.

- c. For signage identifying an exit, “exit” and the level must be stated on the sign. It must 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.

5.14 Thresholds

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless in a building required to be accessible by Part D3, the doorway opens to a road or open space; and is provided with a threshold ramp or step ramp in accordance with AS 1428.1.

Compliance Summary:

To be addressed during detailed design stages.

5.15 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 not steeper than 1:14	P3 or R10	P4 or R11
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.

5.16 Luminance Contrast (Best-practice recommendation)

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;
- Minimum 30% luminance contrast between the ground surface and obstructions such as columns, bollards and street furniture;
- 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.

This is not a mandatory requirement and will not affect compliance.



6 Sanitary Facilities

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

6.1 Distribution of Accessible Sanitary Facilities

The following is required to satisfy BCA requirements:

- A unisex accessible toilet at each level. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.
- A unisex accessible shower is required where showers are required by F2.3. In this regard, BCA only requires accessible showers within hospitals, early childhood centres, theatres and sporting venues. Showers are not *required* within commercial, retail or industrial premises. If ***required by Clause F2.3***, where one or more showers are provided, 1 accessible shower for every 10 or part thereof must be provided.
- To minimize the risk of a complaint made under the DDA, we recommend that where showers are provided for general use, an accessible shower should be provided.
- At each bank of toilets where there is one or more toilets in addition to an 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
- One unisex accessible adult change facility must be provided:
 - in an accessible part of a shopping centre having a design occupancy of not less than 3,500 people (calculated on the basis of floor area);
 - a sporting venue that has a design occupancy of not less than 35,000 spectators or contains a swimming pool that has a perimeter greater than 70m;
 - a museum or art gallery having a design occupancy of not less than 1,500 patrons;
 - a theatre or the like having a design occupancy of not less than 1,500 patrons;
 - a passenger use area of an airport terminal building providing public transport services.

Compliance Summary:

Compliant

A unisex accessible sanitary compartment, that includes an accessible shower, is provided within individual units – and therefore at each level with sanitary facilities as per BCA requirements.

A unisex accessible sanitary compartment is provided within the roof terrace common areas.

Ambulant toilet cubicles (male and female) are provided within the roof terrace common areas and at each level of the large commercial / industrial tenancy (three levels).

An Accessible Adult Change Facility is not required in this development.



6.2 Unisex Accessible Sanitary Compartments

There are multiple unisex accessible sanitary compartments provided throughout the proposed development. The overall room dimensions and set-out of fixtures are capable of achieving compliance with relevant accessibility legislation.

Both left and right-handed facilities are provided throughout the development.

Compliance Summary:

Capable of compliance

Recommendations:

Access requirements for the accessible toilet facilities are as follows and should be addressed during preparation of the construction certificate documentation to ensure compliance.

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.

Where more than one accessible toilet is provided, a mirrored arrangement should be adopted to allow for the option of left and right handed use.

- 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.

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. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).

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.

Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

- c. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.
- 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.
- f. Accessible toilet to be identified using the International Symbol for Access. Pictograms / lettering to have a minimum 30% luminance contrast to the background colour. Signage is to comply with AS1428.1, Clause 8 and include information in tactile and Braille formats (as required by the BCA).
- g. 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.
- h. 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.
- i. 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.
- j. 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.

6.3 Unisex Accessible Shower Facility

A shower is provided within most accessible sanitary compartments. The overall room dimensions and set-out of fixtures are capable of achieving compliance with relevant accessibility legislation.

Compliance Summary:

Capable of compliance

Recommendations:

Showers are to comply with AS 1428.1, Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.

Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.

The minimum dimension of an accessible shower to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.

Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.



6.4 Cubicles for People with an Ambulant Disability

Ambulant cubicles are indicated within male and female sanitary facilities to the common areas at the roof terrace and within the large commercial industrial tenancy offering BCA compliance for distribution of ambulant toilet facilities.

Compliance Summary:

Capable of compliance

Recommendations:

Options for the configuration of the ambulant cubicles are illustrated in AS1428.1, Figure 53.

The following should be addressed during preparation of the construction certificate documentation to ensure compliance.

- a. Provide an ambulant cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.
- b. Minimum width of ambulant cubicles to be 900-920mm.
- c. Provide grabrails to ambulant cubicles to comply with AS1428.1, Clause 17 and Figure 53A.
- d. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.
- e. Provide signage to the ambulant cubicles to comply with AS1428.1, Clause 16.4.

7 Vertical Circulation

Lifts, located within the Ancillary Building at the north-western end of the proposed building, provide the main access between levels of the building. Two lifts are provided that caters for lift redundancy measures. Additionally, a lift is provided with the large Commercial / Industrial Tenancy.

Stairs within individual tenancies are considered as public access stairs and therefore subject to compliance with AS1428.1 (2009).

Stairs within the common areas of the building are fire isolated egress stairs.

7.1 Lifts

A total of three (3) lifts are provided within the development – two within common areas and one within the large tenancy. This facilitates access between levels for people with non-ambulatory disabilities. The overall size of each lift will satisfy the requirements of BCA / AS1735.12.

Compliance Summary:

Capable of compliance

**Recommendations:**

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.
Minimum internal dimensions of the lift car to be 1400mm wide x 1600mm deep BCA, Clause E3.6 – for a lift that travels over 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.

7.2 Stairs

Stairs are provided within individual units for access between levels / to mezzanine areas. AS1428.1 has access requirements for all public access stairs and is applicable in these locations.

Compliance Summary:

Capable of compliance

Recommendations:

Access requirements for public access stairs are as follows and should be addressed during preparation of the construction certificate documentation 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).

7.3 Fire Isolated Egress Stairs

Stairs are provided throughout the development to enable egress in the event of a fire. These are generally provided within common area of the development.

Designated fire egress stairs are not considered public access stairs and therefore are not subject to the requirements of AS1428.1 with the exception of contrasting nosing strips and handrail requirements. These are required per AS1428.1.

Compliance Summary:

Capable of compliance

Recommendations:

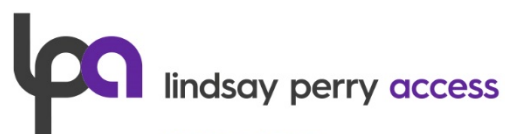
- a. Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.
- b. Stair nosings shall not project beyond the face of the riser.



- c. Handrails in a required exit serving an area required to be accessible, are to be designed and constructed to comply with AS 1428.1, Clause 12 (BCA D2.17).

Note: handrails within fire-isolated stairs are required to one side only and do not require the provision of handrail extensions. They must have a diameter between 30-50mm; be between 865-1000mm high above the nosing; have a consistent height along the length of the stair – no vertical sections; have a clearance to the wall not less than 50mm; have no obstruction along the length of its passage; and have an end that turns through 180, turns to the ground, or returns fully to an end post.

We recommend the use of the staggered stair to maintain a constant height along the length of the handrail per AS1428.1 (2009), Clause 12.



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