



Disability Access Report

Mixed Use Development
349 Barrenjoey Road,
NEWPORT NSW

For: Summit Build Pty Ltd
Ref: LP_20168



Executive Summary

Development application documentation for the proposed Mixed-Use Development located at 349 Barrenjoey Road, Newport, has been reviewed against the requirements of the Building Code of Australia 2019 and The Disability Discrimination Act 1992 regarding access for people with a disability. The requirements of the Disability (Access to Premises) Standards 2010 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		
5.1	Allotment Boundary to Entrance	Compliant
5.2	Accessible Carparking to Entrance	Compliant
5.3	Accessible Carparking	Compliant
5.4	Stairs	Capable of compliance
5.5	Entrances	Capable of compliance
Interior		
6.1	Extent of Access Generally	Compliant
6.2	Circulation Areas	Compliant
6.3	Doorways	Capable of compliance
6.4	Access to Upper Level (Retail 3 & 4)	Compliant
6.5	Exempt Areas	Compliant
6.6	Floor Finishes	To be addressed during detailed design
6.7	Carpet	To be addressed during detailed design
6.8	Controls	To be addressed during detailed design
6.9	Visual Indication to Glazing	To be addressed during detailed design
6.10	Tactile Indicators	To be addressed during detailed design
6.11	Signage	To be addressed during detailed design
6.12	Thresholds	To be addressed during detailed design
6.13	Slip Resistance	To be addressed during detailed design
Sanitary Facilities		
7.1	Distribution	Compliant
7.2	Accessible Toilets	Capable of compliance
Vertical Circulation		
8.1	Lift	Capable of compliance
8.2	Walkways	Capable of compliance
8.3	Stairs	Capable of compliance
8.4	Fire Isolated Egress Stairs	Capable of compliance



Livable Housing (DCP Requirement)		
9.1	Dwelling Access	Compliant
9.2	Dwelling Entrance	Capable of compliance
9.3	Internal Corridors and Doors	Capable of compliance
9.4	Toilet	Compliant
9.5	Shower	Compliant
9.6	Reinforcement of Bathroom Walls	To be addressed during detailed design
9.7	Internal Stairways	Not applicable

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.

LINDSAY PERRY
B.Arch, M.Dis.Stud.

Internationally Certified Access Consultant GAATES ICAC BE-02-106-18
ACAA Accredited Access Consultant No. 136 |
Registered Architect NSW 7021
Livable Housing Assessor 20047 | Changing Places Assessor CP005



Revision Summary

Date	Description	Revision
29 June 2020	DA Access Report	draft
27 July 2020	DA Access Report	1
12 August 2020	DA Access Report	2



1. Project Background

This Access Report considers the proposed Mixed-Use Development located at 349 Barrenjoey Road, Newport, against the requirements of the Building Code of Australia 2019 and The Disability Discrimination Act 1992 regarding access for people with a disability. The requirements of the Disability (Access to Premises) Standards 2010 have also been addressed.

The project is a mixed-use development over three (3) levels with additional basement carparking. The ground floor level accommodates four (4) retail tenancies with a public plaza area along Robertson Road as part of an active streetscape.

Six (6) residential units are provided above the retail areas including two (2) livable housing units. A lift offers a means of access through all levels of the building and to the residential communal roof top terrace.

2. Reviewed Documentation

Documentation prepared by Crawford Architects has been reviewed as follows:

- A000 A Cover Sheet
- A001 A Location Plan
- A002 A Site Analysis
- A100 A Floor Plan Basement
- A101 A Floor Plan Ground
- A102 A Floor Plan Level 01
- A103 A Floor Plan Level 02
- A104 A Roof Plan
- A200 A Elevations
- A201 A Elevations
- A300 A Sections
- A301 A 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).

Further, The Pittwater DCP 2014 is applicable to this development. Section C1.9 Adaptable Housing and Accessibility, for mixed-use developments comprising residential accommodation requires that 20% of the units achieve Silver Level requirements of the Livable Housing Australia Design Guideline.

This access report demonstrates compliance with current, applicable accessibility legislation as listed above, including silver level requirements of the Livable Housing Australia Design Guideline.

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 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 Standards AS1428.1(2009) Amendment 1, AS1428.2(1992), AS1428.4(2009) – Design for Access and Mobility
- Australian Standard AS1735.12 – Lifts, escalators and moving walks: Lifts for persons with a disability
- 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
- The Livable Housing Design Guidelines – Edition 4

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 **Disability (Access to Premises - buildings) Standards 2010** (the Premises Standards) commenced on 1 May 2011. Any application for a building approval for a new building or upgrade of an existing building on or after that date 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 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.
- **BCA 2019** for Class 2 buildings (residential), requires access from a pedestrian entrance required to be accessible to at least 1 floor containing sole-occupancy units and to the entrance doorway of each sole-occupancy unit located on that level.

Where a ramp complying with AS 1428.1 or a passenger lift is installed—

- a) to the entrance doorway of each sole-occupancy unit; and
- b) to and within rooms or spaces for use in common by the residents, located on the levels served by the lift or ramp.

Access for people with disabilities is also required to and within not less than 1 of each type of room or space for use in common by the residents, including a cooking facility, sauna, gymnasium, swimming pool, common laundry, games room, individual shop, eating area, or the like.

- **BCA 2019** for Class 6 (retail) buildings requires access for people with disabilities to and within all 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.
- The **Livable Housing Design Guidelines** include Silver, Gold and Platinum Level which cater to differing levels of accessibility.

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 Barrenjoey Road and Robertson Road to the building entrances;
- from the accessible carparking area to the building entrances.

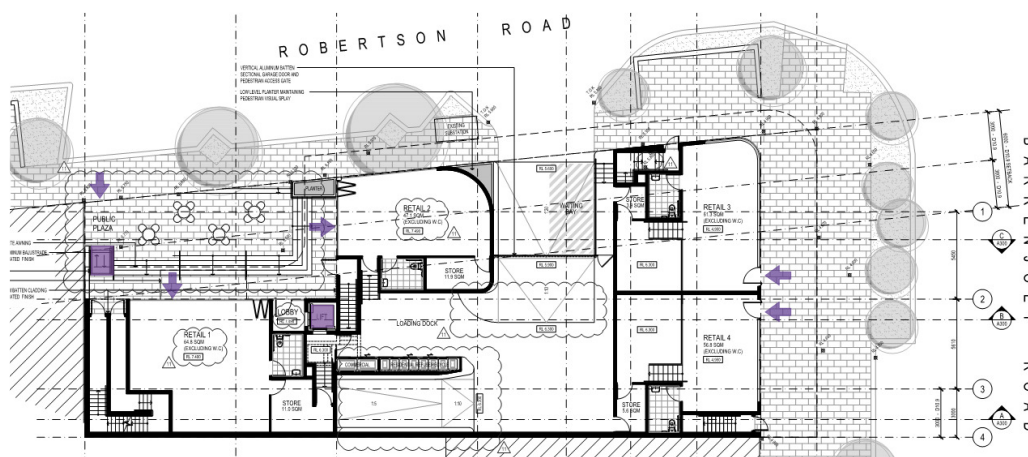


Figure 2 | Overall Site Plan

5.1 Approach from Street 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

Level access is available from the street footpaths along Barrenjoey Road and Robertson Road to Retail Tenancies 3 & 4. A platform lift provides access between the public plaza and the entrance to Retail 1, Retail 2 and the Residential Lobby.

5.2 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

Lift access is provided from the basement carparking areas to the retail and residential entrances.



5.3 Accessible Carparking

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

A total of five (5) accessible carparking spaces are provided within the development at the basement level allocated as follows: two (2) for the Silver Level Livable Housing Units; two (2) for the retail component; and one (1) visitor space.

Compliance Summary:

Capable of compliance

Carparking is provided at the basement level of the development. A total of nine (9) spaces are allocated to the retail component of the development with the remaining spaces allocated to residential units. The number of accessible spaces provides BCA compliance.

The turning bay forms the shared area for one of the accessible carparking spaces allocated to the retail tenancies. As such, there will be no bollard provided in this location. Given that the basement is a low-traffic area we consider this approach reasonable.

Recommendations:

Access requirements for the accessible carparking spaces 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.
- 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.

5.4 Stairs

Stairs are provided as a part of the pedestrian access from Robertson Road to the public plaza 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).

5.5 Platform Lift

A platform lift is provided within eh public plaza for access to the building entrances. The BCA has limitations for the use of this type of lift as follows. It must not travel more than 12m.

Compliance Summary:

Capable of compliance

The platform size, as documented, will achieve compliance with BCA.

Recommendations:

Confirmation should be sought from the manufacturers to confirm compliance with AS1735.16 prior to installation. Basic access requirements for Part 16 lifts are as follows (BCA Table E3.6a).



- a. Car size should be a minimum of 1100x1400mm to accommodate a wheelchair.
- b. Clear opening of the lift door to be minimum 900mm.
- c. Provide a handrail complying with the provisions for a mandatory handrail in AS1735.12.
- d. 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.

5.6 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.

Compliance Summary:

Capable of compliance

A single swinging doorway is provided for entry to the residential lobby and Retail 3 & 4. Bi-folding doorways are provided for entry to Retail 1 & 2.

Recommendations:

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

- 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.

For the bi-folding doors, 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.

- 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.
- 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 per AS1428.1, Clause 6.6.



6 Interior

The interior areas subject to accessibility requirements include the residential common areas being the entry foyer, lift lobbies, corridors and rooftop terrace. The following requirements do not extend to individual apartments.

6.1 Extent of Access Generally – BCA

Access for people with disabilities is required to and within the retail tenancies and to the doorway of individual sole occupancy units. An accessible path of travel is also required to the residential communal areas.

Compliance Summary:

Compliant

6.2 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

6.3 Doorways Generally

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

Compliance Summary:

Capable of compliance

Adequate circulation areas are achieved at doorways within the accessible path of travel.

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.
- 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).

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.

- e. 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.

6.4 Access to Upper Level – Retail 3 & 4

Retail 3 & 4 are provided over two (2) levels. Access to the upper level via stairs. No access is available for persons with limited mobility. The floor area of the upper level within each tenant is approximately 30sqm.

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 upper level of Retail 3 & 4 is less than 200sqm.

Compliance Summary:

Compliant

6.5 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.

In this instance, the following areas are considered exempt areas: loading dock, commercial waste area.

6.6 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.

6.7 Carpet

AS1428.1 has access requirements for carpet. Where 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.



BCA states that clause 7.4.1(a) of AS 1428.1 does not apply and is replaced with 'the pile height or pile thickness shall not exceed 11 mm and the carpet backing thickness shall not exceed 4 mm.'

Compliance Summary:

To be addressed during detailed design stage.

6.8 Controls

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.

6.9 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.

6.10 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 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.



6.11 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.

6.12 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.

6.13 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.



7 Sanitary Facilities

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

7.1 Distribution of Accessible Sanitary Facilities

The following is required to satisfy BCA requirements, noting that not all are applicable to all developments:

- 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.
- 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 certain building types.

Compliance Summary:

Compliant

A unisex accessible sanitary facility is provided within each retail tenancy. Both left and right-handed facilities are provided. There is no requirements for accessible showers, ambulant toilets or an adult change facility within this development.

7.2 Unisex Accessible Toilets

A unisex accessible sanitary compartment is provided within each retail tenancy. Overall room dimensions and the set-out of fixtures is conducive to compliance with current accessibility legislation.

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.

- 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.



8 Vertical Circulation

A passenger lift provides the main means of access between levels of the building. Two lifts are provided within the development. Stairs within the building are generally fire isolated egress stairs with the exception of stairs within Retail 3 & 4.

8.1 Lift

A lift facilitates access between all levels. The size of the lift shaft will satisfy the requirements of 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.
- 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.



8.2 Stairs

Stairs are provided within Retail 3 & Retail 4. 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

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.
- 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).



8.3 Fire Isolated Egress Stairs

Stairs are provided throughout the development to enable egress in the event of a fire.

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 stars 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; be 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.



9 Silver Level LHA Requirements

To satisfy Pittwater DCP requirements, a minimum of 20% of the residential units are required to achieve silver level for of the LHA Design Guideline.

As there are six (6) existential units with the development, two (2) are required to achieve silver level of the LHA Design Guidelines. In this instance, Unit 4 and Unit 5, located at Level 1, have been designed to meet the silver level requirements.

Livable housing requirements are summarised below:

9.1 Dwelling Access

There is a safe, continuous, step-free pathway from the street entrance and/or parking area to a dwelling entrance that is level.

- Path of travel should be minimum 1000mm wide with no steps; an even, slip resistant surface; crossfall not more than 1:40; and maximum slope of 1:14.
- Where ramps are required, landings at 9m intervals are to be provided and are to be not less than 1200mm in length.
- Where a carparking space is relied upon as the safe and continuous pathway to the dwelling, it should be at least 3200mm wide....
- Step ramps where provided to have a maximum gradient of 1:10, clear width of 1000mm and maximum length of 1900mm.
- Where ramps adjoin gates or doorways, landings no less than 1200mm in length, exclusive of the door swing, are required.

Compliance Summary:

Compliant

Pedestrian pathways achieve a gradient less than 1:14.

9.2 Dwelling Entrance

There is at least one level (step-free) entrance into the dwelling to enable home occupants to easily enter and exit the dwelling.

- Entrance doors to have a clear opening with of 820mm and have a level transition (5mm allowable tolerance – where in excess of 5mm, threshold ramp up to 56mm high is allowable)).
- Reasonable shelter from the weather is required.
- 1200x1200mm level landing area required on the arrival side of the door.

Compliance Summary:

Capable of compliance

Entrances offer shelter and the required landing area. Door sizes and threshold details to be addressed during detailed design.

We recommend the use of an 870mm door leaf to achieve a clear opening of 820mm.

9.3 Internal Corridors and Doors

Internal doors and corridors facilitate comfortable and unimpeded movement between spaces.



- Doorways on the entry level used for living, dining, bedroom, bathroom, kitchen, laundry and sanitary compartment purposes to have a clear opening with of 820mm and level transition between surfaces (5mm allowable tolerance).
- Corridors to be 1000mm wide.

Compliance Summary:

Capable of compliance

Corridors offer adequate clear width. Door sizes and threshold details to be addressed during detailed design.

We recommend the use of an 870mm door leaf to achieve a clear opening of 820mm.

9.4 Toilet

The ground (or entry) level has a toilet to support easy access for home occupants and visitors.

- A toilet on the ground / entry floor is required to have a circulation area in front of the toilet pan 900x1200mm.
- Toilet pan is to be provided in a corner of a room.

Compliance Summary:

Compliant

9.5 Shower

The bathroom and shower are designed for easy and independent access for all home occupants.

- A bathroom is required to have a non-slip hobless shower, located on the corner of the room.

Compliance Summary:

Compliant

Ensure level access into the shower.

9.6 Reinforcement of Bathroom & Toilet Walls

The bathroom and toilet walls are built to enable grabrails to be safely and economically installed.

- Walls to enable safe installation of grabrails to toilet, bath and shower.
- Reinforcement to be in the form of 25mm noggins or plywood sheeting with 12mm thickness.

Compliance Summary:

To be addressed during detailed design stages.

9.7 Internal Stairways

Where installed, stairways are designed to reduce the likelihood of injury and also enable future adaptation.

Compliance Summary:

Not applicable



10 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the proposed Mixed-Use Development located at 349 Barrenjoey Road, Newport. 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 **to the degree necessary** and **safe movement**. 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.

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.

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.



lindsay perry access

Lindsay Perry

B.Arch., M. Dis. Stud.
Accredited Access Consultant
Registered Architect NSW 7021

- ☎ 0418 909 180
- ✉ lindsay@lpaccess.com.au
- 📍 PO Box 453,
New Lambton NSW 2305
- 🌐 www.lpaccess.com.au