



Access Report

**Mixed Use Development**  
309 King Street  
NEWCASTLE NSW

For: GWH  
Ref: LP\_23104



## 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:

<b>prepared by:</b> Lindsay Perry	Draft Revision 1 Revision 2 Revision 3	25 May 2023 19 June 2023 19 January 2024 28 February 2024
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## 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** | details not available or applicable at DA stage

**To be confirmed** | inadequate information is provided to determine compliance



## Executive Summary

Development application documentation for the proposed mixed use development located at 309 King Street Newcastle, has been reviewed against current accessibility legislation.

The following table summarises our findings.

Item No.	Description	Compliance Status
<b>The Disability (Access to Premises) Standards</b>		
4.1	Access Code	Refer BCA commentary
4.2	New Work & The Affected Part	Not applicable
<b>Access and Approach</b>		
5.1	Allotment Boundary to Entrance	Compliant
5.2	Accessible Carparking to Entrance	Compliant
5.3	Link between Associated Buildings	Compliant
5.4	Accessible Carparking	Compliant configuration
5.5	Accessible Ramps	Capable of Compliance
5.6	Stairs	Capable of Compliance
5.7	Walkways	Capable of Compliance
5.8	Accessible Entrances	Capable of Compliance
5.9	Non-accessible Entrances	
<b>Interior</b>		
6.1	Extent of Access Generally	Compliant
6.2	Circulation Areas	Compliant
6.3	Doorways	Compliant configuration
6.4	Doorways to Vestibules	Compliant
6.5	Doorways to Ambulant Toilets	Compliant
6.6	Hearing Augmentation	To be addressed during detailed design
6.7	Wheelchair Seating	To be addressed during detailed design
6.8	Exempt Areas	None specified
6.9	Floor Finishes	To be addressed during detailed design
6.10	Carpet	To be addressed during detailed design
6.11	Controls	To be addressed during detailed design
6.12	Visual Indication to Glazing	To be addressed during detailed design
6.13	Tactile Indicators	To be addressed during detailed design
6.14	Signage	To be addressed during detailed design
6.15	Access to Swimming Pool	Not applicable
6.16	Handrails to Passageways (RACF)	To be addressed during detailed design
<b>Sanitary Facilities</b>		
7.1	Distribution	Compliant
7.2	Accessible Toilets	Capable of compliance
7.3	Ambulant Toilet Cubicles	Capable of compliance
7.4	Accessible Showers	Capable of compliance



Vertical Circulation		
8.1	Lifts	Compliant
8.2	Fire Isolated Egress Stairs	Capable of compliance
8.3	Slip Resistance (Ramps & Stairs)	To be addressed during detailed design
Accessible Sole Occupancy Units (RACF)		
9.1	Doorways	Compliant configuration
9.2	Bathroom	Capable of compliance
9.3	Circulation Areas	Compliant
SEPP 65 Universal Housing Requirements   Livable Housing Silver level		
10.1	Dwelling Access	Compliant
10.2	Dwelling Entrance	Compliant
10.3	Internal Corridors and Doors	Compliant
10.4	Toilet	Compliant
10.5	Shower	Compliant
10.6	Reinforcement of Bathroom Walls	To be addressed during detailed design
10.7	Internal Stairways	Not applicable
SEPP Housing 2021   Seniors Living Requirements		
11.	Location & Access to Facilities	Resolved in Original DA
11.	Accessibility	Resolved in Original DA
11.	Siting Standards	Compliant
11.	Security	To be addressed in detailed design.
11.	Letterboxes	Compliant
11.	Private Car Accommodation	Compliant configuration
11.	Accessible Entry	Compliant configuration
11.	Interior	Compliant configuration
11.	Main Bedroom	Compliant configuration
11.	Bathroom	Compliant configuration
11.	Toilet	Compliant configuration
11.	Surface Finishes	To be addressed in detailed design.
11.	Door Hardware	To be addressed in detailed design.
11.	Ancillary Items	To be addressed in detailed design.
11.	Living and Dining Room	Compliant configuration
11.	Kitchen	Compliant configuration
11.	Access to kitchen, main bedroom & bathroom	Not applicable
11.	Lifts in multi-storey buildings	Compliant
11.	Laundry	Compliant
11.	Storage	Compliant
11.	Garbage	Compliant

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.

A handwritten signature in black ink, appearing to read 'L Perry'.

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## 1 Project Background

The project is a mixed-use development at 309 King Street, Newcastle West. This report has been prepared to address the modification application for built form amendments and an adjustment in the land use mix.

The s4.55 application involves the following.

- a) Variation in the residential apartment mix and reduction in dwelling numbers
- b) Increase in seniors housing apartments
- c) Reduction in residential aged care rooms from
- d) Amendments to the building configuration and design including height and FSR amendments.

The development proposed two (2) residential towers with retail tenancies at the ground floor and common basement carparking.

Tower A is designed over thirteen (13) levels and accommodates a residential care facility over two (2) levels with independent living units (ILU) for seniors living above. Tower B has been designed over fifteen (15) levels and accommodates residential apartments with communal open space at the rooftop level.

Retail tenancies are provided at the Ground Floor Level of Tower B with entry from the King Street frontage. A café and lobby are provided at this level within Tower A. At the ground floor level, a central communal open space offers a pedestrian link between King and Bull Streets.



Figure 1 | Proposed Development

## 2 Reviewed Documentation

Documentation prepared by Fender Katsalidis has been reviewed as listed within Appendix 3 of this report.



### 3 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 2022 (BCA)
  - Part D3 D15 Landings (Slip Resistance)
  - Part D3 D22 Handrails
  - Part D4 – Access for People with Disabilities
  - Section E3D7 / ED38 – Lifts
  - Section F2D5 – Accessible Sanitary Facilities
- State Environmental Planning Policy – Housing 2021 – 12 August 2022
- 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
- Australian Standard AS4299 – Adaptable Housing
- State Environmental Planning Policy 65 – Residential Design Quality of Residential Apartment Development (SEPP65) – Apartment Design Guide – July 2015
- The Livable Housing Design Guidelines – Edition 4

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.



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

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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 2 (residential) buildings, access for people with disabilities is required:

- 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.
- 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, TV room, individual shop, dining room, public viewing area, ticket purchasing service, lunch room, lounge room, or the like.
- 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.

For a Class 6 (retail) building BCA requires access for people with disabilities to and within all areas normally used by the occupants.

For a Class 7a (carpark) building BCA requires access for people with disabilities to and within any level containing an accessible carparking space.

For a Class 9c (residential aged care facility) building BCA requires that common areas of the building be accessible from at least one floor of sole occupancy units and to the entrance doorway of each sole occupancy located at that level. It also requires access to and within not less than each type of room or space for use in the common areas of the development.

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### **SEPP Housing 2021**

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Housing SEPP incentivises the supply of affordable and diverse housing in the right places and for every stage of life and ensures that the home building sector is well-placed to assist the economic recovery of NSW following the COVID-19 pandemic.

It consolidates five housing-related policies being:





- State Environmental Planning Policy (Affordable Rental Housing) 2009 (ARHSEPP);
- State Environmental Planning Policy (Housing for Seniors and People with a Disability) 2004 (Seniors SEPP);
- State Environmental Planning Policy No 70 – Affordable Housing (Revised Schemes) (SEPP 70);
- State Environmental Planning Policy No 21 – Caravan Parks; and
- State Environmental Planning Policy No 36 – Manufactured Home Estates.

Chapter 3, Part 5 relates to Housing for Seniors and People with a Disability providing development standards for the design of seniors housing. Schedule 4 Standard concerning Accessibility and usability for hostels and independent living units needs to be implemented.

The Department of Planning and Environment issued an Explanation of Intended Effect (EIE) on November 2022 that outlines proposed amendments to the in-fill affordable housing, group homes, supportive accommodation and social housing provision of the SEPP Housing 2021. This includes Appendix 4: Proposed reforms to the accessibility and disability standards for independent living units. The proposed amendments have been considered in the preparation of this report.

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#### **AS1428 – Design for Access and Mobility**

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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.

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

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

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#### **AS1735– Lifts, escalators and moving walks**

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

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#### **SEPP 65 Residential Design Quality of Residential Apartment Development.**

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The Apartment Design Guide includes a requirement for livable housing. Developments are to provide a minimum 20% of apartments that achieve silver level for livable housing.

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#### **AS4299 Adaptable Housing**

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AS4299 (1993) provides housing for different community groups with different needs. It involves a move away from special accommodation for persons with a disability, avoiding social dislocation.

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#### **Livable Housing Australia Design Guidelines**

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The Livable Housing Design Guidelines, 2017 include Silver, Gold and Platinum Level which cater to differing levels of accessibility.



## 4 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.

### 4.1 Access Code

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

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#### Compliance Summary:

Refer to BCA requirements throughout subsequent sections of this report.

While the introduction of NCC 2022 causes clause numbers to differ between documents, the intent of each code remains similar.

### 4.2 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 part** 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.

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#### Compliance Summary:

Not applicable

#### Commentary:

The new work and affected part provisions are not applicable to new developments.





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## 5.2 Approach from Accessible Carparking

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

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### Compliance Summary:

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Compliant

### Commentary:

An accessible path of travel is provided to the Lift Lobbies from accessible carparking at Ground Floor.

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## 5.3 Approach between Associated Buildings

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The BCA requires that a continuous accessible path of travel be provided between associated accessible buildings.

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### Compliance Summary:

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Compliant

### Commentary:

The towers are not considered “associated accessible buildings” having distinct uses. However, an accessible path of travel is available between buildings via the basement level and street footpaths along King & Bull Streets.

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## 5.4 Accessible Carparking

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There is a requirement for the provision of accessible carparking within this development as follows:

- For the residential component of the development (Class 2), there are no BCA requirements for the provision of accessible carparking within the development.
- For a retail (Class 6) building, BCA requires one (1) accessible space for every fifty (50) carparking spaces or part thereof.
- For a residential aged care facility (Class 9c) BCA building requires one (1) accessible space for every one hundred (100) carparking spaces or part thereof.

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### Compliance Summary:

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Compliant configuration

### Commentary:

The carparking schedule (DA525) indicates that a total of three hundred and twenty eight (328) carparking spaces are provided within the development at the basement levels and ground floor. Three (3) are nominated as accessible spaces at the ground floor.



The floor plan shows three (3) accessible spaces – one (2) is allocated to the retail use, the other two (2) to the Aged Care use.

The overall configuration of the accessible carparking shown on the floor plans achieves compliance with current legislation including dimensions of the space and associated shared areas, chevron markings and provision of a bollard.

Sections indicate a floor-to-floor level of 4400mm at the ground floor that will enable the required head height over accessible carparking.

## 5.5 Accessible Ramps

Accessible ramps form a part of the accessible path of travel to the building entrances from King and Bull Streets. A ramp is also provided within the through-site link at the eastern side of the site for access between King and Bull Streets.

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### Compliance Summary:

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Capable of compliance

### Commentary:

The ramps from Bull Street to the building entrances are designed in a switch back arrangement. The ramp within the through-site link of a straight design.

The configuration of the ramps is in keeping with accessibility requirements including gradient (nominated gradient is 1:14), length between landings and circulation areas at landings.

Ensure and the provision of handrails with extension to both sides, tactile indicators at the top and bottom of the ramp and kerbrails as necessary where ramps are not enclosed.

## 5.6 Stairs

AS1428.1 has access requirements for all public access stairs and is applicable in this instance.

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### Compliance Summary:

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Capable of compliance

### Commentary:

Stairs are provided as a part of the pedestrian access from King and Bull Streets to the building entrances and also within the communal open space and through-site link at Level 01.

The overall configuration of the stairs achieves compliance with current legislation including the gradient (1:14 nominated),



length between landings, circulation areas at landings, and required set-back from the property boundary as applicable.

Ensure and the provision of handrails with extension to both sides, tactile indicators at the top and bottom of the stair and contrasting non-slip nosing strips to treads.

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## 5.7 Walkways

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AS1428.1 defines a walkway as having a gradient between 1:33 and 1:20. The accessible path of travel refers to a pathway which is grade restricted and provides wheelchair access as per the requirements of AS1428.

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### Compliance Summary:

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Capable of compliance

### Commentary:

Walkways are provided within the communal open space and through-site link at Level 01.

The overall configuration of the walkways achieves compliance with current legislation including the gradient (1:20 nominated), length between landings, and circulation areas at landings,

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## 5.8 Accessible Entrances

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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.

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### Compliance Summary:

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Capable of compliance

### Commentary:

Automatic sliding doors are provided for entrance to each other from Bull Street. The use of this type of door is encouraged as it maximizes access for persons with a disability to the tenancy.

Double hinged doorways provide entry to the Tower A from King Street and offer compliant circulation areas. Ensure that the selected door enables a clear width of 850mm for single leaf operation.

Doorways to the Retail Tenancies are not shown on the current documentation. We note they are subject to general accessibility requirements for entrance doorways.

A level threshold hold is achievable at each of the entrances.



## 6 BCA | Interior

The development provides two (2) towers. Tower A is designed over thirteen (13) levels and accommodates a residential care facility over two (2) levels with independent living units (ILU) for seniors living above. The facility offers accommodation areas and common areas including gym, arts and craft, library, dining areas, lounge areas, party room and theatre.

Tower B has been designed over fifteen (15) levels and accommodates residential apartments with communal open space at the rooftop level.

Retail tenancies are provided at the Ground Floor Level of Tower B with entry from the King Street frontage. A café and lobby are provided at this level within Tower A.

The interior areas subject to accessibility requirements include the residential common areas being the entry foyer and corridors. The following do not apply to individual units.

### 6.1 Extent of Access Generally – BCA

Within a residential development, access for people with disabilities is required 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 or a passenger lift is installed, access is required to the entrance doorway of each sole-occupancy unit within the building. Access is also required to and within not less than 1 of each type of room or space for use in common by the residents.

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

For a residential aged care facility, access for people with disabilities is required to common areas of the building be accessible from at least one floor of sole occupancy units and to the entrance doorway of each sole occupancy located at that level. It also requires access to and within not less than each type of room or space for use in the common areas of the development. Access must also be provided to and within three (3) sole occupancy units (based on a total of 50 rooms).

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#### Compliance Summary:

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Compliant

#### Commentary:

Lifts facilitate access through all levels of each tower and to the doorways of sole occupancy units.

The design of the rooms within the residential aged care facility offers circulation and bathroom areas conducive to compliance with AS1428.1.



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## 6.2 Circulation Areas

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BCA (Clause D4D4) 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.

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### Compliance Summary:

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Compliant

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## 6.3 Doorways Generally

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

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### Compliance Summary:

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Compliant configuration

### Commentary:

Doorways within the accessible path of travel generally achieve the required circulation areas.

Doorways to external areas such as winter gardens, balconies and other communal outdoor areas are required to have a level threshold to facilitate wheelchair access.

Within the residential aged care facility, BCA D2D9(d) requires that the unobstructed width of a door must be not less than 1070mm where it opens from a sole occupancy unit onto a public corridor; 870mm in other residential areas; and 800mm in non-residential areas.

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## 6.4 Doorways within Vestibules and Air-locks

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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.

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### Compliance Summary:

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Compliant





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### 6.5 Doorways within Vestibules and Air-locks to Ambulant Toilet Cubicles

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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.

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#### Compliance Summary:

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Compliant

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### 6.6 Hearing Augmentation

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For buildings that are required to be accessible, the BCA (Clause D4D8) 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**. Hearing augmentation systems at service counters are also required **where the user is screened from the service provider**.

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#### Compliance Summary:

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To be addressed during detailed design.

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### 6.7 Wheelchair Seating

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The BCA Table D4D10 requires not less than 3 wheelchair spaces for every 150 persons or part thereof (1 single space and a group of 2 spaces).

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#### Compliance Summary:

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To be addressed during detailed design

#### Commentary:

If seating within the theatre (residential aged care facility) is fixed, wheelchair seating areas will need to be provided.

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### 6.8 Exempt Areas

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BCA Clause D4D5 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.

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#### Compliance Summary:

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None specified

#### Commentary:

Within this development, the following areas are considered to be exempt from requiring access for people with disabilities: plant and service areas generally, store rooms, bin rooms, staff BOH areas within the residential aged care facility (dirty utility, clean utility, and the like).



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## 6.9 Floor Finishes

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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.

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### Compliance Summary:

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To be addressed during detailed design stages

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## 6.10 Carpet

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

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### Compliance Summary:

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To be addressed during detailed design stage.

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## 6.11 Controls

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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.

We recommend that video intercoms be installed at 1200mm affl - this is within the range of common view per AS1428.2 (1992).

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### Compliance Summary:

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To be addressed during detailed design stage.

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## 6.12 Visual Indication to Glazing

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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.

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### Compliance Summary:

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To be addressed during detailed design stage.

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## 6.13 Tactile Indicators

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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 D4D9).



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).

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**Compliance Summary:**

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To be addressed during detailed design stage.

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**6.14 Signage**

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Signage to identify sanitary facilities, hearing augmentation and required exits are to be provided in accordance with BCA Clause D4D7. 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.

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**Compliance Summary:**

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To be addressed during detailed design stage.

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**6.15 Access to Swimming Pool**

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The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible (D4D2).

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

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**Compliance Summary:**

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Not applicable

**Commentary:**

There are two (2) pools provided within the development – an indoor pool is provided within Tower A and an outdoor pool within Tower B. Both are located at Level 1. Each pool has a perimeter less than 40m. Therefore, by definition, no accessible entrance to the pools is required.

Given the provision of seniors housing within Tower A, we recommend that a form of accessible entrance be provided to this pool to meet the requirements of all residents.

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**6.16 Handrails to Passageways – Residential Aged Care Facilities**

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In an aged care building, handrails must be provided along both sides of every passageway or corridor used by residents fixed not less than 50mm clear of the wall and where practical continuous for the full length of the corridor.

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**Compliance Summary:**

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To be addressed during detailed design



## 7 BCA | Sanitary Facilities

The BCA / Access Code for Buildings (Clause F4D5) require the provision of sanitary facilities catering for people with disabilities.

### 7.1 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 addition to a unisex accessible sanitary compartment at the bank of toilets, a sanitary compartment suitable for a person with an ambulant disability must be provided for use by males and females.
- A unisex accessible shower is required where showers are required by F4D7.
- A unisex accessible adult change facility must be provided in some public buildings (not required within this development).

Within Class 2 buildings, where sanitary compartments are provided in common areas, not less than one (1) unisex accessible sanitary compartment is required.

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#### **Compliance Summary:**

Compliant

#### **Commentary:**

Accessible sanitary facilities are provided within the development as follows:

#### **Ground Floor Retail:**

- Unisex accessible sanitary compartment
- Male ambulant toilet
- Female ambulant toilet

#### **Ground Floor Resi Bicycle Store:**

- Male shower / toilet
- Female shower / toilet

#### **Ground Floor Rehab Gym:**

- Unisex accessible sanitary compartment

#### **Tower A Level 1 - Pool:**

- Unisex accessible sanitary compartment
- Male ambulant toilet
- Female ambulant toilet



**Tower A Level 2:**

- A unisex accessible sanitary compartment (common area)

**Tower A Level 3:**

- A unisex accessible sanitary compartment (common area)

**Tower A Level 13 – Sky Dining**

- Unisex accessible sanitary compartment

**Tower B Level 15 (communal Open Space):**

- Two (2) accessible sanitary compartments.

---

**7.2 Unisex Accessible Sanitary Compartment**

---

Unisex accessible sanitary compartments are provided within this development.

---

**Compliance Summary:**

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Capable of compliance

**Commentary:**

The overall room dimensions and set-out of fixtures within the unisex accessible sanitary facilities documented is conducive to compliance with current accessibility legislation.

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

---

**7.3 Cubicles for People with an Ambulant Disability**

---

Ambulant toilets are required within this development.

---

**Compliance Summary:**

---

Capable of compliance

**Commentary:**

Overall cubicle dimensions and the set-out of fixtures is conducive to compliance with current accessibility legislation.



## 8 BCA | Vertical Circulation

Lifts provide the main means of access between levels of the building. Stairs within the building are fire isolated egress stairs.

### 8.1 Passenger Lifts

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:

Compliant

#### Commentary:

Two lifts are provided within Tower A and three within Tower B for access between levels. The overall size of the lift shafts are capable of accommodating lift car sizes of adequate dimensions for compliance with BCA.

### 8.2 Fire Isolated Egress Stairs

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

#### Commentary:

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

We note the provision of offset treads to maintain a constant height along the length of the handrail per AS1428.1 (2009). Ensure a handrail is provided to at least one side of each stair and contrasting non-slip nosing strips are provided to treads.

### 8.3 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 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.



## 9 BCA | Accessible Sole Occupancy Units (RACF)

Within a residential aged care facility (BCA Class 9c), the BCA has requirements for the provision of accessible sole occupancy units. Within this development, access for people with disabilities is required to and within three (3) sole occupancy units (based on a total of 50 rooms).

The design of an accessible sole occupancy unit includes the provision of doorways, bathrooms and circulation areas in accordance with AS1428.1 (2009).

### 9.1 Doorways

Doorways within the accessible rooms (including the entrance door) should comply with the requirements of AS1428.1 as a part of the accessible path of travel.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

All of the rooms are provided with doorways that have the required circulation areas (entry doorway and bathroom doorway).

### 9.2 Bathroom

Bathroom within the accessible rooms should comply with the requirements of AS1428.1.

---

**Compliance Summary:**

---

Capable of compliance

**Commentary:**

All of the rooms are provided with a bathroom conducive to an accessible layout – we note that due to operational / patient care arrangements, the set of fixtures may be based on operational procedure.

### 9.3 Circulation Areas

It is best practice to provide circulation areas within the accessible apartments for wheelchair access. A minimum 1540mm wide circulation at the foot of the bed (for compliance with AS1428.2, Clause 6.1) is recommended.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Required circulation areas are achievable within each of the rooms.



## 10 Universal Housing Requirements (SEPP 65)

The NSW Government promotes better apartment design across NSW through the State Environmental Planning Policy No. 65 – Design Quality of Residential Apartments Development.

Section Q4 Universal Design provides three (3) objectives as follows.

### Objective 4Q-1

*Universal design features are included in apartment design to promote flexible housing for all community members*

Design guidance: Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features

### Objective 4Q-2

*A variety of apartments with adaptable designs are provided.*

Design guidance: Adaptable housing should be provided in accordance with the relevant council policy

### Objective 4Q-3

*Apartment layouts are flexible and accommodate a range of lifestyle needs.*

Design guidance

Apartment design incorporates flexible design solutions which may include:

- rooms with multiple functions
- dual master bedroom apartments with separate bathrooms
- larger apartments with various living space options
- open plan 'loft' style apartments with only a fixed kitchen, laundry and bathroom

Within this development, a total of twenty-eight (28) apartments are provided that are capable of achieving silver level livable housing requirements per the Livable Housing Design Guidelines – Fourth Edition as follows:

- Apartment Type 1B (3 off) – Levels 4, 9 and 10
- Apartment Type 2B (13 off) – Levels 1-11
- Apartment Type 3B (4 off) – Levels 1-4
- Apartment Type 3D (4 off) – Levels 5-8
- Apartment Type 3E (4 off) – Levels 1-4





Livable housing requirements are summarised below:

### 10.1 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.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

The NCC / BCA requirement for an accessible path of travel to the doorway of individual sole occupancy units will meet LHA requirements for the dwelling access.

The car parking is not relied on for access to the units and as such, there are no specific LHA requirements for carparking.

### 10.2 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.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Entrances offer shelter and the required landing area. Door size of 850mm is nominated on the detailed plans (820mm required) and a level threshold is achievable at all doorways.

### 10.3 Internal Corridors and Doors

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

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Door size of 850mm is nominated on the detailed plans (820mm required). Corridors offer a clear width in excess of 1000mm.



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#### 10.4 Toilet

---

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

---

**Compliance Summary:**

---

Compliant

**Commentary:**

A toilet with the required circulation areas to the front of the pan (900x1200mm) is provided within each of the livable apartment types. The circulation area is clear of door swings in each instance.

---

#### 10.5 Shower

---

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

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Each of the livable apartment types provides a shower in the corner of the room and no hobs are documented.

---

#### 10.6 Reinforcement of Bathroom & Toilet Walls

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

---

**Compliance Summary:**

---

To be addressed during detailed design stages.

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#### 10.7 Internal Stairways

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

---

**Compliance Summary:**

---

Not applicable



## 11 SEPP Housing 2021 – Seniors Living Requirements

The independent living units (ILU) with Tower A have been designed to reflect the requirements of the SEPP Housing 2021 for seniors housing.

There are thirteen (13) unit types – detailed plans of all the unit types show the required circulation areas and spatial requirements of the SEPP as demonstrated below.

### 11.1 SEPP Clause 93 – Location & Access to Facilities

A SEPP development must offer access to services such as shops, banks, retail services, commercial services, recreational facilities, community facilities and doctors. These facilities are to be located within 400m of the site via a pathway that provides a suitable access pathway.

#### Compliance Summary:

Resolved as part of the original Development Application.

### 11.2 SEPP Clause 104– Accessibility

A SEPP development should have obvious and safe pedestrian links from the site that provide access to public transport services or local facilities. A development should provide attractive, yet safe, environments for pedestrian and motorists with convenient access and parking for residents and visitors.

#### Compliance Summary:

Resolved as part of the original Development Application.

## Part 1 Standards Concerning Accessibility & Usability for Hostels and Independent Living Units

### 11.3 Schedule 4, Clause 1 – Application

The standards set out in this Part apply to any seniors housing that consists of hostels or independent living units.

### 11.4 Schedule 4, Clause 2 – Siting Standards

This Clause contains 3 parts regarding siting standards as follows.

#### (1) Wheelchair Access

Where the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous path of travel within the meaning of AS1428 to an adjoining public road.

#### (2) If the whole of the site does not have a gradient of less than 1:10:

- a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and



- b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.

### (3) Common Areas

Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

The applicable siting standards for this development are (1) and (3). The site has an overall gradient less than 1: 10 and community facilities are provided at Level 1 – indoor pool, gym and spa.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

All of the units within the development are accessible to people with disabilities. Each unit has direct access to the street footpaths along both Bull and King Streets – lifts provide access to all levels..

---

**11.5 Clause 3 – Security**

---

Pathway lighting is to be designed and located to avoid glare for pedestrians and adjacent dwellings. Lighting to be minimum 20 lux at ground level.

---

**Compliance Summary:**

---

To be addressed during detailed design.

---

**11.6 Clause 4 – Letterboxes**

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Letterboxes are required to be lockable, in a central location and be accessible to persons using a wheelchair via an accessible path of travel as per AS1428.1.

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**Compliance Summary:**

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Compliant

**Commentary:**

The mail room is provided at Level 1 within the ILU Lobby in an accessible location.

An accessible path of travel is provided from the letterboxes to the entrance individual units.

---

**11.7 Clause 5 – Private Car Accommodation**

---

If car parking (not being for employees) is provided,

- Carparking spaces must comply with the requirements for parking for persons with a disability set out in AS2890.6 and,



- 10% of the total number of car parking spaces (or at least one space if there are fewer than 10 spaces) must be designed to enable the width of the spaces to be increased to 3.8m and,
- Any garage must have a power operated door.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Carparking for the ILUs is provided at the basement levels. There are a total of one hundred and seven (107) spaces dedicated to the ILU – one per unit.

The Department of Planning and Environment **Explanation of Intended Effect** (EIE) that was issued last year requires that in a communal carpark, 10% of spaces must comply with AS2890.6.

At Basement Level 1, there is the ability to adapt 10% of the residential carparking for compliance with the above mentioned requirements. Six (6) dedicated spaces have already been nominated.

Banks of three (3) carparking spaces are provided where the centre space can be converted to a shared area with bollard as required in the future. This strategy is clearly noted on the floor plans.

---

**11.8 Clause 6 – Accessible Entry**

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Every entrance to each residence, whether it be the front entry or not, must comply with Clauses 4.3.1 and 4.3.2 of AS4299. Clauses 4.3.1 and 4.3.2 of AS4299 require the entry door to comply with AS1428.2 – the minimum clear opening width of the doorway is to be 850mm and allow for wheelchair maneuverability (provide minimum 1550mm long area in front of the doorway).

Door hardware is to comply with AS1428. In this regard, entry door hardware is to be in the accessible height range of 900-1100mm above finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

---

**Compliance Summary:**

---

Compliant configuration

**Commentary:**

Detail floor plan layouts of the ILUs show adequate circulation areas provided (shown hatched).

Door leaf sizes of 920mm should be used as a minimum which will achieve clear width of 850mm.

The requirement for door hardware should be implemented during detailed design.



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### 11.9 Clause 7 – Interior

---

Widths of internal corridors 1000mm and circulation at internal doorways must comply with AS1428.1.

---

#### Compliance Summary:

---

Compliant configuration

#### Commentary:

The design of the ILUs provides circulation areas in accordance with AS1428 at required doorways (the secondary bathroom is not required to be accessible). This includes doorways to external balconies as applicable.

All corridors within the ILUs meet the required width of 1000mm minimum.

---

### 11.10 Clause 8 – Main Bedroom

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At least one bedroom is required to have adequate space for a wardrobe and a queen size bed with minimum 1200mm wide circulation at the foot of the bed, 1000mm between the bed and wall / wardrobe or any other obstruction. There are also requirements for locations of GPOs and telephone outlets and illumination levels.

---

#### Compliance Summary:

---

Compliant configuration

#### Commentary:

The main bedroom within each ILU type offers adequate circulation areas – shown in the detailed floor plans.

Additional requirements listed above to be implemented during detailed design.

---

### 11.11 Clause 9 – Bathroom

---

At least one bathroom must be located on the entry level and have circulation areas that complies with AS1428.1, slip resistant floor, shower minimum 1100x1160mm with future provision for accessible features, washbasin capable of adaption to comply with AS1428.1 and a wall cabinet with illumination levels as described.

---

#### Compliance Summary:

---

Compliant configuration

#### Commentary:

Ensuites to the main bedroom within each of the ILUs are conducive to the requirements of an accessible bathroom, meeting the requirements of the SEPP.



Additional requirements listed above to be implemented during detailed design.

We note that the SEPP allows for future adaption of bathroom areas that reflect the individual needs of the residents.

---

**11.12 Clause 10 – Toilet**

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A self-contained residence is required to have a toilet on the ground (or main) floor that complies with the requirements for sanitary facilities of AS4299. That is, a visitable toilet with 1250mm length and 900mm wide in front of toilet pan, clear of door swings and fixtures.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

The toilet within the ensuite of each ILU meets the requirements of AS4299.

---

**11.13 Clause 11 – Surface Finishes**

---

Balconies and external paved areas must have slip resistant surfaces

---

**Compliance Summary:**

---

To be addressed during detailed design.

---

**11.14 Clause 12 – Door Hardware**

---

Door handles and hardware for all doors must be provided in accordance with AS4299.

Door hardware is to be operable with one hand and in the height range of 900-1100mm above the floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

---

**Compliance Summary:**

---

To be addressed during detailed design.

---

**11.15 Clause 13 – Ancillary Items**

---

Switches such as light switches must be located within the accessible height range of 900-1100mm above the floor level as required by AS4299.

---

**Compliance Summary:**

---

To be addressed during detailed design.



## Part 2 Additional Standards for independent living units

### 11.16 Schedule 4, Clause 14– Application

The standards set out in this Part apply to any seniors housing that consists of independent living units.

### 11.17 Clause 15 – Living and Dining Room

Living areas within each residence are required to have circulation areas in accordance with AS4299, Clause 4.7. In this regard, an area with 2250mm diameter is required, clear of furniture.

A telephone outlet adjacent to a general power outlet and illumination level of 300 lux is also a requirement for living areas.

#### Compliance Summary:

Compliant

#### Commentary:

The open plan arrangement of living / dining areas within each of the ILUs provides sufficient area to satisfy SEPP requirements for circulation spaces within living and dining rooms.

The requirement for telephone outlet, general purpose outlet and lux levels should be implemented during detailed design.

### 11.18 Clause 16 – Kitchen

A kitchen in a self-contained dwelling must have:

- Circulation space in accordance with AS4299, Clause 4.5.2 (1550mm between opposing benches)
- A width at door approaches complying with Clause 7 of this schedule
- Fittings and fittings in accordance with the relevant sub clauses of AS4299, Clause 4.5.

#### Compliance Summary:

Compliant

#### Commentary:

Kitchens within each of the ILU have adequate width to accommodate 1200 mm clear between opposing benches as per the EIE – the island bench can be modified to achieve 1550mm if required.

Additional requirements for kitchens as listed above, should be implemented during detailed design.





#### 11.19 Clause 17 – Access to kitchen, main bedroom, bathroom and toilet

In multi-storey residences, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

---

**Compliance Summary:**

---

Not applicable

#### 11.20 Clause 18 – Lifts in multi-storey developments

In a multi storey building containing self-contained dwellings, lift access must be provided to dwellings above the ground level by way of a lift complying with Clause E3.6 of the BCA.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Lifts are provided for access between levels of the development and offer compliance with regard to the overall size of the lift shaft.

#### 11.21 Clause 19 – Laundry

A self-contained dwelling must have a laundry that has:

- A width at door approaches that complies with Clause 7 of this schedule.
- Provision for the installation of an automatic washing machine and a clothes dryer.
- A clear space in front of appliances of at least 1300mm
- Slip resistant floor
- An accessible path of travel to any clothesline.

---

**Compliance Summary:**

---

Compliant

**Commentary:**

Laundries within each ILU are provided with adequate circulation being in a cupboard configuration.

Requirements such as floor finish and access to clothes lines to be implemented during preparation of the construction certificate documentation to ensure compliance.



---

### 11.22 Clause 20 – Storage

---

A self-contained dwelling must be provided with a linen cupboard in accordance with AS4299, Clause 4,1,1,5. It should be at least 600mm wide that have adjustable shelving.

---

#### Compliance Summary:

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Compliant

#### Commentary:

A linen cupboard is provided within each ILU type.

The requirement for adjustable shelving is to be implemented during detailed design.

---

### 11.23 Clause 21 – Garbage

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A garbage storage area must be provided in an accessible location.

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#### Compliance Summary:

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Compliant

#### Commentary:

The refuse room at each level is provided in an accessible location.



## 12 Conclusion

This report demonstrates that the fundamental aims of accessibility legislation are achievable within the proposed development. 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.

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).



## Appendix 1 | Accessibility Requirements



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

### Accessways Generally

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

- 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.
- f. Grated drains within the accessible path of travel are to have circular openings no greater than 13mm in diameter and slotted openings not greater than 13mm wide – elongated openings must traverse the direction of travel.

### Walkways

AS 1428.1 has access requirements for walkways as follows:

- a. The minimum unobstructed width of walkways is to be 1000mm (AS1428.1, Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2.
- b. Walkways are to be constructed with no lip or step at joints between abutting surfaces (a construction tolerance of 3mm is allowable, 5mm for bevelled edges -refer to Figure 6 of AS1428.1).
- c. The maximum allowable crossfall of a walkway is to be 1:40.
- d. Surface of the walkway to be slip-resistant.



- e. The ground abutting the sides of the walkway should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided (refer to AS1428.1 Clause 10.2).
- f. Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180°, landings to be 1540mm in length – refer to AS1428.1(2009), Clause 10.8.

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### **Accessible Ramps – External**

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AS 1428.1 has access requirements for accessible ramps as follows:

- a. Ramp to comply with AS1428.1, Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm (1500mm for curved ramps) and maximum length between landings to be 9m (for 1:14 gradient). Increased circulation areas are required at landings to facilitate wheelchair maneuverability.
- b. Accessible ramp is to have a maximum rise of 3.6m (BCA Clause D4D12)
- c. The ramp is required to be set back a minimum 900mm from the property boundary (AS1428.1, Clause 10.3 (f)). This allows tactile indicators and handrail extensions to occur within the boundary and not protrude into the footpath area.
- d. Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1, Clause 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 ramp to cater for left and right handed disabilities.
- e. Where ramp is not enclosed, provide kerb rails in accordance with AS1428.1. The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.
- f. Provide tactile indicators at the top and bottom of the ramps to comply with BCA Clause D4D9 and AS1428.4. Tactile indicators to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4, Figure A1).



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## Stairs – External

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AS 1428.1 has access requirements for all public access stairs as follows:

- a. Stairs to comply with AS1428.1(2009), Clause 11.2.
- 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 riser.
- c. 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.

- d. 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.
- e. Stair nosings shall not project beyond the face of the riser.
- f. Provide tactile indicators at the top and bottom of the stair to comply with BCA Clause D4D9 and AS1428.4.

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

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.

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## Accessible Carparking

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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 800 and 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 stripes 150 to 200mm wide with spaces 200 to 300mm between stripes. Stripes to be at an angle of 45° to the side of the space.

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### Accessible Entrances

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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.





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### **Circulation Areas Generally**

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BCA 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.

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### **Doorways**

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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.
- j. For residential aged care facilities, BCA D2D9(d) requires that the unobstructed width of a door must be not less than 1070mm where it opens from a sole occupancy unit onto a public corridor; 870mm in other residential areas; and 800mm in non-residential areas.

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#### Doorways within Vestibules and Airlocks

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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.

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#### Doorways within Vestibules and Airlocks to Ambulant Toilets

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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.

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#### Hearing Augmentation

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For buildings that are required to be accessible, the BCA (Clause D4D8) 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.

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#### Hearing Augmentation at Service Counters

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For buildings that are required to be accessible, the BCA (Clause D4D8) 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.



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### 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.

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### 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.

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### 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.

We recommend that video intercoms be installed at 1200mm affl - this is within the range of common view per AS1428.2 (1992).

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### 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.

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### 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 D4D9).

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).

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### 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 15 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
  - each door required by E5D5 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 15 including provision of Braille locator for multiple lines of text and characters.



### Handrails to Passageways in RACF

Handrails must be provided along both sides of every passageway or corridor used by residents (BCA D2.17(b)(11)). They are to be fixed not less than 50mm clear to the wall and where practical continuous for their full length.



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### Access to Swimming Pool

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The BCA requires access for persons with a disability to swimming pools with a total perimeter greater than 40m that are associated with as Class 1b, 2, 3, 5, 6, 7, 8, or 9 building that this required to be accessible .

For pools required to be accessible by this clause, not less than one accessible entry / exit must be provided by means of a fixed or moveable ramp and an aquatic wheelchair; or a zero depth entry at a maximum gradient of 1:14; or a platform swimming pool lift; or a swing style swimming pool lift.

For pools with a perimeter greater than 70m, the use of a swing stile swimming pool lift is not permitted.

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### Unisex Accessible Sanitary Compartments

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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.

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### **Unisex Accessible Shower**

Access requirements for the accessible shower facilities are as follows. These are **CLEAR** dimensions. Provision for wall linings needs to be considered.

- a. Accessible 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.
- b. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.
- c. 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.
- d. Circulation space in front of the shower is to be provided as illustrated in AS1428.1, Figure 47.

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### **Ambulant Toilet Cubicles**

Requirements for the ambulant toilets are as follows.

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



- b. Provide an ambulant cubicle within each bank of male and female toilets in compliance with AS1428.1, Clause 16.
- c. Minimum width of ambulant cubicles to be 900-920mm.
- d. Minimum distance between the front of the WC pan and cubicle door / wall is 900mm,
- e. Seat height to be 460-480mm.
- f. Provide grabrails to ambulant cubicles to comply with AS1428.1, Clause 17 and Figure 53A.
- g. Provide toilet paper holder within the accessible reach zone (within 300mm of the front of the pan at a height less than 700mm).
- h. Doors to have a minimum opening width of 700mm and comply with AS1428.1, Figure 53B.
- i. Provide signage to the ambulant cubicles to comply with AS1428.1, Clause 16.4.

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### Passenger Lifts

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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
- b. Minimum internal dimensions of the lift car to be 1400mm wide x 1600mm deep a lift that travels over 12m or,  
Minimum internal dimensions of the lift car to be 1100mm wide x 1400mm deep 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.

### Fire Isolated Egress Stairs

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.

- 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

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; ne a consistent height along the length of the stair – no vertical sections; have a clearance to eh 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.

### 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





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### Accessible Sole Occupancy Units

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The following accessibility features are required within the accessible sole occupancy units:

#### Doorways:

- a. Doorways, including the entrance doorway, and associated circulation areas are required to comply with AS1428.1 (2009). This includes door hardware and operational forces. For doorways to external areas, a level threshold is required.

#### Bathroom:

- b. Bathroom to offer compliance with AS1428.1 (2009) including set-out of fixtures and circulation areas.
- c. 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.
- d. A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- e. Grabrails to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.
- f. 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.
- g. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.
- h. 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.
- i. Taps to have lever handles, sensor plates or similar controls. For lever taps, a minimum 50mm clearance to be provided to adjacent surfaces.
- a. Accessible 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.
- b. Floor waste to be positioned 550mm and 580mm from enclosing shower walls as illustrated in AS1428.1 (2009), Figure 47a.



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

#### Flooring:

- j. Floor finishes to enable seamless transition throughout (no steps or lips)
- k. Carpet to achieve maximum carpet pile height of 11mm and carpet backing thickness not exceeding 4 mm.

#### Controls:

- l. 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.

#### Kitchen:

- m. The provision of a kitchenette and robe in accordance with AS1428.2 is highly recommended (not required for BCA compliance).

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### **Livable Housing – SILVER LEVEL**

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Livable housing requirements for Silver Level are summarised below:

#### **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.

#### **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.

### **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.

### **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.

### **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.

### **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.

### **Internal Stairways**

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

- Stairs to have a continuous handrail to one side of the stair where the rise is greater than 1m.

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## **SEPP Housing 2021 Seniors Living Requirements**

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### **Part 1 Standards applying to hostels and independent living units**

#### **Application of standards in this Part**

The standards set out in this Part apply to any seniors housing that consists of hostels or self-contained dwellings.



## Siting standards

- 1) Wheelchair access  
If the whole of the site has a gradient of less than 1:10, 100% of the dwellings must have wheelchair access by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road.
- 2) If the whole of the site does not have a gradient of less than 1:10:
  - a) the percentage of dwellings that must have wheelchair access must equal the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater, and
  - b) the wheelchair access provided must be by a continuous accessible path of travel (within the meaning of AS 1428.1) to an adjoining public road or an internal road or a driveway that is accessible to all residents.  
Note. For example, if 70% of the site has a gradient of less than 1:10, then 70% of the dwellings must have wheelchair access as required by this subclause. If more than 50% of the site has a gradient greater than 1:10, development for the purposes of seniors housing is likely to be unable to meet these requirements.
- 3) Common areas  
Access must be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the development.

## Security

Pathway lighting:

- a) must be designed and located so as to avoid glare for pedestrians and adjacent dwellings, and
- b) must provide at least 20 lux at ground level.

## Letterboxes

Letterboxes:

- a) must be situated on a hard-standing area and have wheelchair access and circulation by a continuous accessible path of travel (within the meaning of AS1428.1), and
- b) must be lockable, and
- c) must be located together in a central location adjacent to the street entry or, in the case of self-contained dwellings, must be located together in one or more central locations adjacent to the street entry.

## Private car accommodation

If car parking (not being car parking for employees) is provided:

- a) car parking spaces must comply with the requirements for parking for persons with a disability set out in AS 2890.6, and



- b) 10% of the total number of car parking spaces (or at least one space if there are fewer than 20 spaces) must be designed to enable the width of the spaces to be increased to 3.8 metres, and
- c) any garage must have a power-operated door, or there must be a power point and an area for motor or control rods to enable a power-operated door to be installed at a later date.

### **Accessible entry**

Every entry (whether a front entry or not) to a dwelling, not being an entry for employees, must comply with clauses 4.3.1 and 4.3.2 of AS 4299.

### **Interior: general**

- 1) Internal doorways must have a minimum clear opening that complies with AS1428.1.
- 2) Internal corridors must have a minimum unobstructed width of 1,000 millimetres.
- 3) Circulation space at approaches to internal doorways must comply with AS 1428.1.

### **Bedroom**

At least one bedroom within each dwelling must have:

- a) an area sufficient to accommodate a wardrobe and a bed sized as follows:
  - i) in the case of a dwelling in a hostel—a single-size bed,
  - ii) in the case of a self-contained dwelling—a queen-size bed, and
- b) a clear area for the bed of at least:
  - i) 1,200 millimetres wide at the foot of the bed, and
  - ii) 1,000 millimetres wide beside the bed between it and the wall, wardrobe or any other obstruction, and
- c) 2 double general power outlets on the wall where the head of the bed is likely to be, and
- d) at least one general power outlet on the wall opposite the wall where the head of the bed is likely to be, and
- e) a telephone outlet next to the bed on the side closest to the door and a general power outlet beside the telephone outlet, and
- f) wiring to allow a potential illumination level of at least 300 lux.

### **Bathroom**

- 1) At least one bathroom within a dwelling must be on the ground (or main) floor and have the following facilities arranged within an area that provides for circulation space for sanitary facilities in accordance with AS 1428.1:
  - a) a slip-resistant floor surface,  
*As there is no real guidance with SEPP or Australian standards with respect to slip resistance, we recommend a rating of R10 be achieved in bathroom areas – this is based on HB-107 Table 3, ensuite within aged care facilities*
  - b) a washbasin with plumbing that would allow, either immediately or in the future, clearances that comply with AS 1428.1,
  - c) a shower that complies with AS 1428.1, except that the following must be accommodated either immediately or in the future:



- i) a grab rail,
    - ii) portable shower head,
    - iii) folding seat,
  - d) a wall cabinet that is sufficiently illuminated to be able to read the labels of items stored in it,
  - e) a double general power outlet beside the mirror.
- 2) Subclause (1) (c) does not prevent the installation of a shower screen that can easily be removed to facilitate future accessibility.

### **Toilet**

A dwelling must have at least one toilet on the ground (or main) floor and be a visitable toilet that complies with the requirements for sanitary facilities of AS 4299.

### **Surface finishes**

Balconies and external paved areas must have slip-resistant surfaces.

Note. Advice regarding finishes may be obtained from AS 1428.1.

*As there is no real guidance with SEPP or Australian standards with respect to slip resistance, we recommend a rating of R10 be achieved in bathroom areas – this is based on HB-107 Table 3, external colonnades and walkways.*

### **Door hardware**

Door handles and hardware for all doors (including entry doors and other external doors) must be provided in accordance with AS 4299.

### **Ancillary items**

Switches and power points must be provided in accordance with AS 4299.

Light switches to be installed within the accessible height range of 900-1100mm affl and not less than 500mm from an internal corner.

Power points to be installed at a height not less than 600mm with a preferred height of 1000mm and not less than 500mm from an internal corner.

## **Part 2 Additional standards for self-contained dwellings**

### **Application of standards in this Part**

The standards set out in this Part apply in addition to the standards set out in Part 1 to any seniors housing consisting of self-contained dwellings.

### **Living room and dining room**

- 1) A living room in a self-contained dwelling must have:
  - a) a circulation space in accordance with clause 4.7.1 of AS 4299, and
  - b) a telephone adjacent to a general power outlet.
- 2) A living room and dining room must have wiring to allow a potential illumination level of at least 300 lux.



## **Kitchen**

A kitchen in a self-contained dwelling must have:

- a) a circulation space in accordance with clause 4.5.2 of AS 4299, and
- b) a circulation space at door approaches that complies with AS 1428.1, and
- c) the following fittings in accordance with the relevant subclauses of clause 4.5 of AS 4299:
  - i) benches that include at least one work surface at least 800 millimetres in length that comply with clause 4.5.5 (a),
  - ii) a tap set (see clause 4.5.6),
  - iii) cooktops (see clause 4.5.7), except that an isolating switch must be included,
  - iv) an oven (see clause 4.5.8), and
- d) “D” pull cupboard handles that are located towards the top of below-bench cupboards and towards the bottom of overhead cupboards, and
- e) general power outlets:
  - i) at least one of which is a double general power outlet within 300 millimetres of the front of a work surface, and
  - ii) one of which is provided for a refrigerator in such a position as to be easily accessible after the refrigerator is installed.

## **Access to kitchen, main bedroom, bathroom and toilet**

In a multi-storey self-contained dwelling, the kitchen, main bedroom, bathroom and toilet must be located on the entry level.

## **Lifts in multi-storey buildings**

In a multi-storey building containing separate self-contained dwellings on different storeys, lift access must be provided to dwellings above the ground level of the building by way of a lift complying with clause E3.6 of the Building Code of Australia.

## **Laundry**

A self-contained dwelling must have a laundry that has:

- a) a circulation space at door approaches that complies with AS 1428.1, and
- b) provision for the installation of an automatic washing machine and a clothes dryer, and
- c) a clear space in front of appliances of at least 1,300 millimetres, and
- d) a slip-resistant floor surface, and
- e) an accessible path of travel to any clothes line provided in relation to the dwelling.

## **Storage for linen**

A self-contained dwelling must be provided with a linen storage in accordance with clause 4.11.5 of AS 4299.

## **Garbage**

A garbage storage area must be provided in an accessible location.



## Appendix 2 | Best Practice Options for Consideration





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.

### Accessways

We recommend that the accessible path of travel be a minimum 1200mm wide to comply with AS1428.2. Wider pathways will allow easy access for more people who have a permanent disability, people with a temporary disability, people pushing prams and elderly people using walking frames and the like. This is in keeping with the principles of Universal Design.

For or a wheelchair and a pram to pass 1500mm is required and for two wheelchairs to pass requires 1800mm.

### 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.



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

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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.

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### **Kitchenettes**

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While not a statutory requirement, the provision of wheelchair accessible benches promotes inclusion. The following recommendations for the dimensioning, layout and arrangement of kitchens are offered to maximize usability for persons with a disability. Some key principles are as follows:

- The height of benches should be between 700-850mm affl noting that no height will suit all users. We recommend a height of 850mm.
- Clearance in front of the bench of 1540mm is encouraged to facilitate a 180° turn by a wheelchair
- Acceptable hardware for cupboards includes touch latches and D shaped pull handles.
- A shallow sink should be provided. Optimum bowl depth is 150mm with clearances under as per requirements for handbasins.

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### **Furniture and Joinery Hardware**

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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.

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### **Wayfinding – Signage**

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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.

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### **Wayfinding – Landmarks and Tactile Indicators**

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To assist people with vision impairment navigate their environment, the use of directional tactile indicators can be implemented, noting that their use should be minimised. The design of directional tactile indicators is site / building specific.

Additionally, landmarks such as entry features, statues, sculpture, fountains, or other unique features can be used as a means of way-finding throughout a building. This especially assists people with intellectual disabilities.

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### **Terminology (Best-practice recommendation)**

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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.



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

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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.

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### **Provision of “Bed- Shakers”**

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We recommend the provision of “bed-shakers” within accommodation buildings such as hotels or boarding houses. For a person with hearing loss who is unable to hear the emergency alarm or smoke alarm, an alerting system becomes a critical aspect in terms of emergency egress. A specialized alarm, called a 'Bed Shaker,' can be installed next to the bed, and alerts those in the accommodation using a strobe light and vibrating pad that can be placed under the mattress or pillow. The alert is activated when an accompanying traditional smoke / fire alarm sounds.

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### **Places of Comparative Safety**

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Consider providing a refuge area within fire isolated stairs by incorporating a 800mm x 1300mm area at stair landings of every accessible floor. A 1000mm unobstructed egress width to the area should be provided.

We recommend that signage displaying the International Symbol of Access (ISA) be provided to identify any places of comparative safety provided. Signage should state that the area is safe in the event of an emergency. Evacuation procedures for the building should address the provision of places of comparative safety for people with limited mobility. Signage should comply with BCA D3.6 and BCA Specification 3.6 and have braille and tactile components.

We also recommend that as a part of the emergency evacuation plan for the building, egress for persons requiring assistance be addressed. The provision of places of comparative safety within fire isolated passages would be advantageous to persons with a disability. This consists of a waiting area large enough to accommodate a wheelchair where persons can wait for assistance from emergency services. The waiting area should be identified with appropriate signage that incorporates the International Symbol for Access.

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### **Lighting and Glare**

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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.



## Appendix 3 | Reviewed Documentation



## PROJECT NO: 22104

## DRAWING INDEX

**DA0000 6 DRAWING LIST**

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DA201	7	NORTH ELEVATION	4.55 APPLICATION
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DA203	8	EAST 1 ELEVATION	4.55 APPLICATION
DA204	10	WEST 2 ELEVATION	4.55 APPLICATION
DA205	9	EAST 2 ELEVATION	4.55 APPLICATION

13 BASEMENT I E/E 2 E I 008 DI AN 455 ABBIGLIAMENTO

		PERSPECTIVES	
DA231	8	SECTION BB	4.55 APPLICATION
DA232	10	SECTION CC	4.55 APPLICATION
		COMPLIANCE	
DA504	11	HEB7 PLANE ANALYSIS VIEW 1	4.55 APPLICATION
DA505	11	HEB7 PLANE ANALYSIS VIEW 2	4.55 APPLICATION
DA511	10	PROPOSED GRA CALCULATIONS	4.55 APPLICATION
		PERSPECTIVES	
DA401	6	3D PERSPECTIVE VIEW 1 - EXISTING	4.55 APPLICATION
DA402	7	3D PERSPECTIVE VIEW 1 - PROPOSED	4.55 APPLICATION
DA403	7	3D PERSPECTIVE VIEW 2 - EXISTING	4.55 APPLICATION
DA404	8	3D PERSPECTIVE VIEW 2 - PROPOSED	4.55 APPLICATION
DA405	6	3D PERSPECTIVE VIEW 3 - EXISTING	4.55 APPLICATION
DA406	8	3D PERSPECTIVE VIEW 3 - PROPOSED	4.55 APPLICATION

**DA1921 E** TOWER B APARTMENT TYPES 4A & 4B 455 APPLICATION

D4516	1	PROCESSED CROSS VENTILATION DIAGRAMS	4.55 APPLICATOR
D4517	1	PROCESSED SOLAR ACCESS DIAGRAMS	4.55 APPLICATOR
D4518	1	PROCESSED SOLAR ACCESS DIAGRAMS	4.55 APPLICATOR
D4519	1	PROCESSED SOLAR ACCESS DIAGRAMS	4.55 APPLICATOR
D4520	1	COMPLIANCE SUMMARY	4.55 APPLICATOR
D4521	10	ITEM SUMMARY	4.55 APPLICATOR
D4522	2	MASSING COMPARISON 01	4.55 APPLICATOR
D4523	3	MASSING COMPARISON 02	4.55 APPLICATOR
D4524	2	MASSING COMPARISON 03	4.55 APPLICATOR
D4525	2	USAGE COMPARISON	4.55 APPLICATOR
D4526	1	TOWER A DEVELOPMENT SCHEDULE 01	4.55 APPLICATOR
D4527	1	TOWER A DEVELOPMENT SCHEDULE 02	4.55 APPLICATOR
D4528	1	TOWER A DEVELOPMENT SCHEDULE 03	4.55 APPLICATOR
D4529	2	TOWER B DEVELOPMENT SCHEDULE 01	4.55 APPLICATOR
D4530	1	TOWER B DEVELOPMENT SCHEDULE 02	4.55 APPLICATOR
D4531	2	TOWER B DEVELOPMENT SCHEDULE 03	4.55 APPLICATOR

**QUALITY ASSURANCE** (FAS A CERTIFIED COMPANY TO ISO 9000)

THIS PROJECT IS SUBJECT TO THE FORMALITY ASSURANCE SYSTEM

☐ SPECIFIC DESIGN REVIEW FOR THIS PROJECT IS YET TO BE COMPLETED

☐ DESIGN DETAIL DRAWING REVIEW FOR THIS PROJECT IS YET TO BE COMPLETED

☐ TECHNICAL DOCUMENTATION REVIEW FOR THIS PROJECT IS YET TO BE COMPLETED

☐ CONSTRUCTION DOCUMENTATION REVIEW FOR THIS DRAWING

IF THIS DRAWING IS SEVERELY UNCONTROLLED (COPY) THEN IT IS BEING CONSIDERED  
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PRODUCT	309 King Street Newcastle NSW 2302
SHIPPING TITLE	

REV.	DRAWING NO.	DESCRIPTION

