



Access Report

**Proposed Manufactured
Housing Estate**
559 Anambah Road
GOSFORTH NSW

For: Thirdi
c/- Mid North Cost Projects
Ref: PAA_24351



Document Control

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

Revision Summary:

prepared by:			
Lindsay Perry	Revision 1	Issued for DA	20 January 2025

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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 Manufacturers Housing Estate located at 559 Anambah Road Gosforth, has been reviewed against current accessibility legislation.

The following table summarises our findings.

Item No.	Description	Compliance Status
The Disability (Access to Premises) Standards		
5.1	Access Code	Refer BCA commentary
5.2	New Work & The Affected Part	Not applicable
Access and Approach		
6.1	Allotment Boundary to Entrance	Compliant
6.2	Link between accessible Buildings	Capable of compliance
6.3	Accessible Carparking to Entrance	Compliant
6.4	Accessways (Pathways Generally)	Capable of compliance
6.5	Accessible Carparking	Compliant configuration
6.6	Accessible Ramps	Capable of compliance
6.7	Stairs	Capable of compliance
6.8	Non-accessible Entrances	
6.9	Tactile indicators at entrance	
Interior		
7.1	Accessible Entrances	Compliant configuration
7.2	Extent of Access Generally	Compliant
7.3	Circulation Areas	Compliant
7.4	Doorways	Compliant configuration
7.5	Doorways to Vestibules	Compliant
7.6	Doorways to Ambulant Toilets	Compliant
7.7	Hearing Augmentation	To be addressed during detailed design
7.8	Exempt Areas	None specified
7.9	Floor Finishes	To be addressed during detailed design
7.10	Carpet	To be addressed during detailed design
7.11	Controls	To be addressed during detailed design
7.12	Visual Indication to Glazing	To be addressed during detailed design
7.13	Tactile Indicators	To be addressed during detailed design
7.14	Signage	To be addressed during detailed design
7.15	Access to Swimming Pool	To be addressed during detailed design
Sanitary Facilities		
8.	Distribution	Compliant
8.	Accessible Toilets	Capable of compliance
8.	Ambulant Toilet Cubicles	Capable of compliance

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.

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1 Project Background

The proponent, Third.i Communities, seeks concept development approval for the staged development of approximately 332 Manufactured Housing Estate (MHE) sites, clubhouses and associated infrastructure. Stage 1 of the DA includes a detailed submission seeking development consent for the creation of the first 291 MHE sites, clubhouses and community facilities, and, associated ancillary services and lead-in roads. Each MHE site will be utilised for long-term occupation and any subsequent building installation will be the subject of a separate application.

Community facilities such as a Clubhouse, secondary community hub, half lawn bowling green, pool, tennis court, pickleball court, maintenance shed, men's shed, dog exercise area, perimeter paths and community garden will be included within the development application. While designed with an over 55s community as the target market, this is not a seniors development.

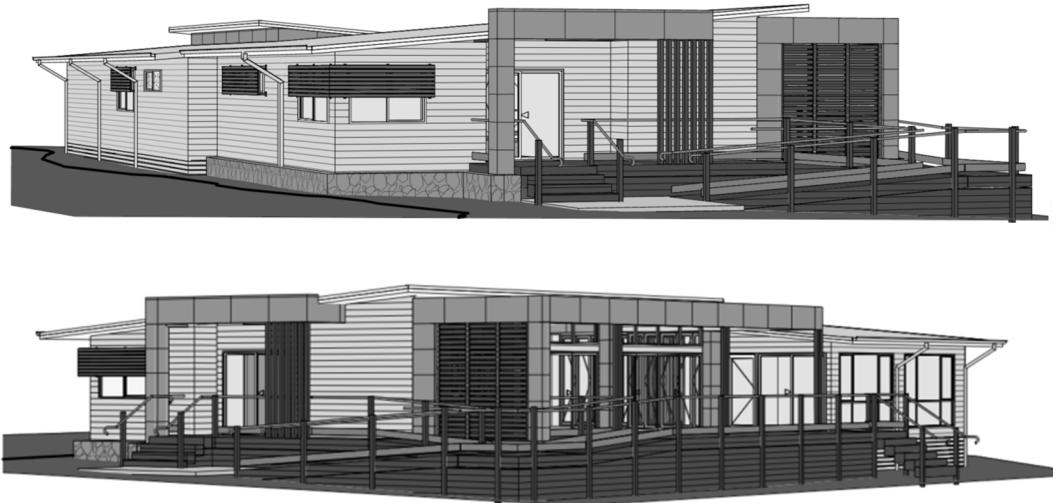


Figure 1 | Proposed Community Building

2 Reviewed Documentation

Notification Plan prepared by Maker Eng has been reviewed as follows:

dwg no.	drawing name	revision
SK020	Notification Plan	1

Civil documentation prepared by Maker Eng has been reviewed as follows:

dwg no.	drawing name	revision
MKR00884	Civil Package (87 pages)	1 (dated 6 / 12 / 2024)



Community Building documentation prepared by Parkwood Modular Buildings has been reviewed as follows:

dwg no.	drawing name	revision
A01	Floor Plan	30 August 2024
A02	Elevations	30 August 2024
A03	Elevation & Section	30 August 2024
A04	3Ds	30 August 2024

Secondary Community Hub documentation prepared by Glendale Homes has been reviewed as follows:

dwg no.	drawing name	revision
-	Floor Plan	C
-	Elevation Side	B
-	Elevation End	A
A04	3Ds	30 August 2024

Landscape documentation prepared by Moir Studios has been reviewed as follows:

dwg no.	drawing name	revision
LDD001	Cover Sheet	C
LDD002	Site Plan	C
LDD401	Landscape Plan A	C
LDD402	Landscape Plan B	C
LDD403	Landscape Plan C	C
LDD404	Landscape Plan D	C
LDD405	Landscape Plan E	C
LDD406	Landscape Plan F	C
LDD407	Landscape Plan G	C
LDD601	Detail Landscape Plan A	C
LDD602	Detail Landscape Plan B	C
LDD603	Detail Landscape Plan C	C
LDD701	Theming Plan	C

3 Council DCP Requirements for Accessibility

Maitland City Council DCP (2011) Section C.1 Accessible Living, Part 3 Design Guidelines contains requirements for accessibility. The overall principles are as follows:

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

- c) To ensure those land uses which provide a service which is likely to attract a larger proportion of people with a disability, adequately provide for the needs of these people.
- d) That the provisions of continuous access path of travel to and within a building is the primary principle.
- e) The secondary principle is the provision of car parking and other amenities.
- f) To ensure that all existing commercial buildings in Maitland are upgraded to meet the primary principle of the Plan, over time.

Commentary:

There are no specific references with the DCP with respect to the accessibility of manufactured housing estates, or individual dwellings within a manufactured housing estate. We note that this development application is for the individual lots and community facilities only – there are no relocatable dwellings proposed on the sites.

While Part C.8 Clause 12 Accessibility and Adaptable Housing require the provision of adaptable dwellings, it is applicable to single detached dwelling houses, dual occupancy housing, multi dwelling housing, residential flat buildings and seniors living accommodation – not manufactured / mobile / relocatable homes.

4 Legislation

Access assessment has been made against Access Legislation including:

- The Commonwealth Disability Discrimination Act 1992 (DDA)
- Disability (Access to Premises (Buildings)) Standards 2010
- Access Code for Buildings 2010
- The National Construction Code Building Code of Australia Volume 1 2022 (BCA)
 - Part D3 D15 Landings (Slip Resistance)
 - Part D3 D22 Handrails
 - Part D4 – Access for People with Disabilities
 - Section F4D5/ F4D6 / F4D7 – Accessible Sanitary Facilities
- Australian Standard AS1428.1 (2009) Amendment 1 & 2, – Design for Access and Mobility
- Australian Standard AS1428.2 (1992) – Design for Access and Mobility: Enhanced and additional requirements – Buildings and facilities
- Australian Standard AS1428.4.1 (2009) Amendment 1 – Design for Access and Mobility: Means to assist the orientation of people with vision impairment – Tactile ground surface indicators
- Australian Standard AS2890.6 (2009) – Parking Facilities – Off street carparking For People with Disabilities.

A summary of the requirements of relevant legislation follows.

The Disability Discrimination Act 1992

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

The Disability (Access to Premises) Standards

Any application for a building approval for a new building or upgrade of an existing building triggers the application of the Premises Standards. The Premises Standards include an **Access Code** written in the same style as the Building Code of Australia. It has a number of Performance Requirements that are expressed in broad terms and references a number of technical Deemed-to-Satisfy Provisions.

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

The Building Code of Australia (BCA) is contained within the National Construction Code (NCC) and provides the minimum necessary requirements for safety, health, amenity and sustainability in the design and construction of new buildings (and new building work in existing buildings) throughout Australia.

The BCA does not contain accessibility requirements for manufactured / relocatable dwellings being Class 1a buildings.

For Class 9b buildings, being the Community Building, BCA requires access for people with disabilities to and within all areas usually used by the occupants and to wheelchair seating spaces provided in accordance with D3.9. Access need not be provided to every tier / platform within an auditorium.

AS1428 – Design for Access and Mobility

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

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

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

5 The Disability (Access to Premises) Standards

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

5.1 Access Code

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

Compliance Summary:

Refer to BCA requirements throughout subsequent sections of this report.

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

5.2 New Part and Affected Part (Existing Buildings)

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.

Compliance Summary:

Not applicable

Commentary:

New work and affected part provisions (Part 2.1(4 & 5)) are applicable to modification works only, not new developments.

6 BCA | Access and Approach + External Areas Generally

The approach to the community buildings needs to be addressed when considering access for persons with a disability. An accessible path of travel is required to the building entrance from the main points of pedestrian entry at the allotment boundary, from another accessible building connected by a pedestrian link, and from required accessible carparking spaces on the allotment. In this instance, the approach to the building has been considered as follows:

- from the main points of the pedestrian entry along the access road from Anambah Road at the allotment boundary, and
- between the Community Building and Secondary Community Hub that are connected by a pedestrian link and required to be accessible, and
- from the required accessible carparking space on the allotment

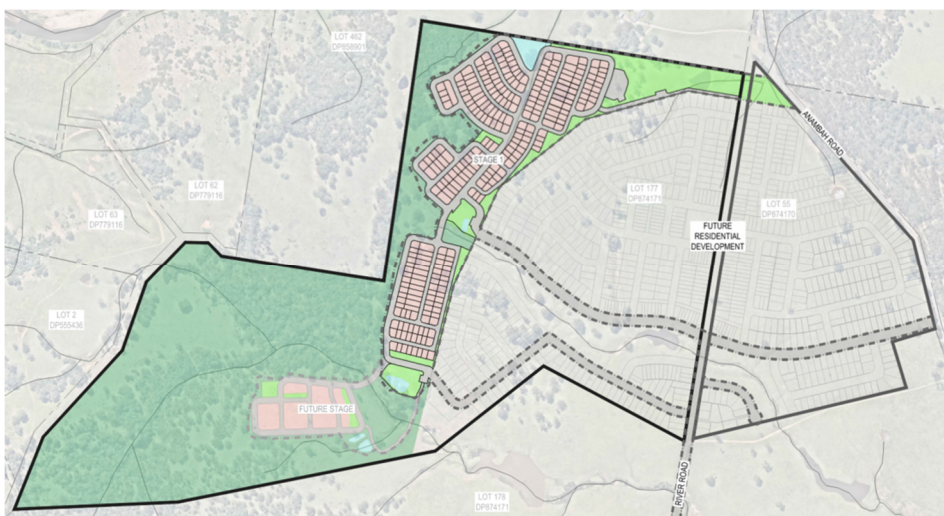


Figure 2 | Overall Site Plan

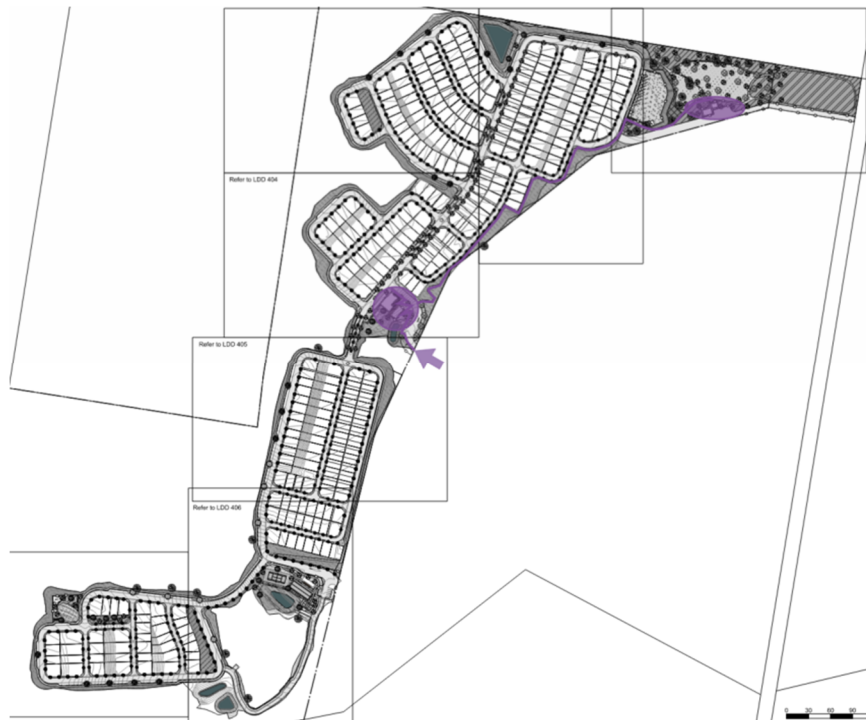


Figure 3 | Location of Community Facilities

6.1 Approach from Allotment Boundary

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

Compliance Summary:

Compliant

Commentary:

An accessible path of travel is provided to the building entrance from the allotment boundary along the access road from Anambah Road via a formed footpath that includes a ramp system. From this point, a formed footpath is available to the secondary community hub.

6.2 Approach from another Accessible Building

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

Compliance Summary:

Capable of compliance

Commentary:

A formed footpath is shown on the landscape documentation between the community building and the secondary community hub. Site plan gradients indicate that an accessible path of travel is achievable.



6.3 Approach from Accessible Carparking

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

Compliance Summary:

Compliant

Commentary:

Accessible carparking is provided at the Main Clubhouse and Secondary Community Hub / Clubhouse 2. An accessible path of travel is provided to each building entrance via an accessible ramp.

6.4 Accessways (Pedestrian Areas Generally)

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

Compliance Summary:

Capable of compliance

Commentary:

Formed footpaths provide a link between the Main Clubhouse and Secondary Community Hub / Clubhouse 2. Site levels indicate that an accessible path of travel is achievable.

There is a pathway network proposed throughout the site to link individual sites to the community facilities.

6.5 Accessible Carparking

There is a requirement for the provision of accessible carparking within this development. For a Community Facilities / Clubhouse (Class 9b), BCA requires one (1) accessible space for every fifty (50) carparking spaces or part thereof.

Compliance Summary:

Compliant configuration

Commentary:

Main Clubhouse:

Car parking spaces are provided at the Main Clubhouse. Plans show a total of six (6) carparking spaces, two (2) of which are nominated as accessible spaces. An additional seven (7) carparking spaces are provided to the northwestern side of the clubhouse – there is no accessible carparking in this location.

The overall configuration of the accessible carparking achieves compliance with current legislation including dimensions of the space and associated shared areas. Ensure that a bollard is provided to the shared space.



Clubhouse 2:

Car parking spaces are provided at Clubhouse 2. Plans show a total of nine (9) carparking spaces, two (2) of which are nominated as accessible spaces.

The overall configuration of the accessible carparking achieves compliance with current legislation including dimensions of the space and associated shared areas. Ensure that a bollard is provided to the shared space.

6.6 Accessible Ramps

AS1428.1 defines a ramp as having a gradient between 1:14 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.

Compliance Summary:

Capable of compliance

Commentary:

Main Clubhouse:

An accessible ramp provides access from the accessible carpark to the main clubhouse. It has been designed in five sections and has a nominated gradient of 1:14.

An accessible ramp is also provided for access to the Main Clubhouse from the footpath area. It is designed in a switchback arrangement, has a nominated gradient of 1:14 and is noted to comply with AS1428.1.

The configuration of each ramp is generally in keeping with accessibility requirements including gradient and length between landings.

The detailed design will need to ensure that circulation areas at landings is provided in accordance with AS1428.1 (the switchback ram currently shows a landing depth of 1300mm – 1540mm clear between handrails is required for compliance. and the provision of handrails with extension to both sides.

Each ramp will need to be provided with handrails (with extensions) both sides, tactile indicators at the top and bottom and kerbrails are provided as necessary where ramps are not enclosed.

Main Clubhouse:

An accessible ramp provides access from the accessible carpark to the Clubhouse 2 and the associated facilities. There are two (2) sections that have a nominated gradient of 1:14.



The configuration of each ramp is generally in keeping with accessibility requirements including gradient and length between landings.

All ramps will need to be provided with handrails (with extensions) both sides, tactile indicators at the top and bottom and kerbrails are provided as necessary where ramps are not enclosed.

6.7 Stairs

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

Compliance Summary:

Capable of compliance

Commentary:

Stairs are provided in conjunction with the ramp for access to the Main Clubhouse.

The overall configuration of the stairs achieves compliance with current legislation including handrails with extensions both sides and tactile indicators top and bottom. Ensure provision of contrasting non-slip nosings to treads.

7 BCA | Interior

Each of the clubhouses – Main Clubhouse and Clubhouse 2 are designed over a single level and provide community facilities. These include lounge / dining areas, kitchen, sanitary facilities and storerooms. In addition, the Main Clubhouse accommodates a manager's office, multipurpose room, consulting room and gym.

7.1 Accessible Entrances

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

Compliance Summary:

Compliant configuration

Commentary:

Main Clubhouse:

An automatic sliding door is provided for entrance to the building and has an overall width of 2100mm. This type of doorway is encouraged as it maximises access and inclusion for all users. Ensure that the selected door enables a clear opening width of 850mm. A level threshold hold is achievable at the doorway – low profile sill is noted on the floor plan.



Clubhouse 2:

Sliding glass doors provide entry to the building and have a nominated overall width of 2700mm and 3610mm. The required circulation areas are achieved at the doorways for compliance with AS1428.1. Ensure that the selected door enables a clear opening width of 850mm for single leaf operation.

A level threshold hold is achievable at each doorway – wheelchair sill is noted on the floor plan.

7.2 Extent of Access Generally – BCA

For a community facility / Clubhouse (Class 9b) access for people with disabilities is required to and within all areas normally used by the occupants.

Compliance Summary:

Compliant

Commentary:

Wheelchair access is available to and within both the Main Clubhouse and Clubhouse 2.

7.3 Circulation Areas

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 180° and passing areas 1800mm wide by 2000mm long are required every 20m along a corridor unless there is a clear line of sight.

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

Compliance Summary:

Compliant

Commentary:

Compliant circulation space has been provided throughout both the Main Clubhouse and Clubhouse 2.

7.4 Doorways Generally

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

Compliance Summary:

Compliant configuration

Commentary:



Doorways within the accessible path of travel (within both the Main Clubhouse and Clubhouse 2) are provided with 920mm door leaves. This will achieve the required 850mm clear opening width for compliance with AS1428.1. The doorways generally achieve the required circulation areas.

Doorways to external areas are required to have a level threshold to facilitate wheelchair access – this is noted on both floor plans.

7.5 Doorways within Vestibules and Air-locks

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

Compliance Summary:

Compliant

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

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

Compliance Summary:

Compliant

7.7 Hearing Augmentation

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**. The following systems can be used:

Compliance Summary:

To be addressed during detailed design as applicable.

7.8 Exempt Areas

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.

Compliance Summary:

None specified

Commentary:



Within this development, the following areas are considered to be exempt from requiring access for people with disabilities: storerooms, kitchens.

7.9 Floor Finishes

All floor finishes are to be flush to provide an accessible path of travel throughout the different areas of the building. Maximum allowable construction tolerance is 3mm (5mm for beveled edges) as part of the accessible path of travel.

Compliance Summary:

To be addressed during detailed design stages

7.10 Carpet

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

Compliance Summary:

To be addressed during detailed design stage.

7.11 Controls

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

Compliance Summary:

To be addressed during detailed design stage.

7.12 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.

Compliance Summary:

To be addressed during detailed design stage.

7.13 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 hazard (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).

Compliance Summary:

To be addressed during detailed design stage.



7.14 Signage

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.

Compliance Summary:

To be addressed during detailed design stage.

7.15 Access to Swimming Pool

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).

Compliance Summary:

To be addressed during detailed design

8 BCA | Sanitary Facilities

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

8.1 Distribution of Accessible Sanitary Facilities

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

- A unisex accessible toilet at each level that provides sanitary facilities. Where more than one bank of toilets is provided at any level, at least 50% of those banks will have an accessible toilet facility.

- At each bank of toilets where there is one or more toilets in 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. (not required within this development – no showers provided).

- A unisex accessible adult change facility must be provided in some public buildings (not required within this development).

Compliance Summary:

Compliant

Commentary:

Main Clubhouse:

Accessible sanitary facilities are provided within the Main Clubhouse as follows:



- Unisex accessible sanitary compartment (right-hand)
- Male ambulant toilet
- Female ambulant toilet

Clubhouse 2:

Accessible sanitary facilities are provided within the Clubhouse 2 as follows:

- Unisex accessible sanitary compartment (right-hand)
- Male ambulant toilet
- Female ambulant toilet

8.2 Unisex Accessible Sanitary Compartment

Unisex accessible sanitary compartments are provided within each of the clubhouse buildings.

Compliance Summary:

Capable of compliance

Commentary:

Overall room dimensions and the arrangement of fixtures is conducive to compliance with current accessibility legislation.

8.3 Ambulant Toilets

Ambulant toilets are provided within each of the clubhouse buildings.

Compliance Summary:

Capable of compliance

Commentary:

Overall cubicle dimensions and circulation areas at the door / in front of the pan are conducive to compliance with current accessibility legislation.

9 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.

Accessible Ramps – External

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).

Stairs – External

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.

Accessible Carparking

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

- a. Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks. For a single space, a total width of 4800mm is required.

For parallel parking arrangements, the accessible space is to be a minimum 3200mm wide x 7800mm long. A shared area 1600mm wide is required at the same level of the parking space.

- 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.

Accessible Entrances

Access requirements for entrances are as follows.

- a. Entrance to comply with AS1428.1(2009), Clause 13 as part of the accessible path of travel.
- b. Doors are to have a minimum clear opening width of 850mm to comply AS1428.1(2009), Clause 13.2 as part of the accessible path of travel.

- c. Door threshold to be level to provide seamless entry as part of the accessible path of travel. Maximum allowable construction tolerance is 3mm for compliance with AS1428.1(2009), 5mm where beveled edges are provided between surfaces – refer to Figure 6.
- d. Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1(2009), Clause 13.5)
- e. For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid. AS1428.1, Clause 6.6.
- f. Where double door sets are provided, one door leaf is to be capable of being held in the closed position to provide door opening widths and circulation to comply with AS 1428.1.
- g. For a best practice approach to access, and to assist people with a vision impairment locate the entrance, consider providing features with a minimum 30% luminance contrast to the background surface such as an entry mat or awning.

Circulation Areas Generally

BCA requires the provision of turning spaces and passing areas to corridors to enable wheelchair circulation throughout a building.

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

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

Doorways

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

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

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

- b. All doorways within the accessible path of travel to have complying circulation areas as illustrated in AS1428.1(2009), Figure 31. Circulation areas to have a maximum crossfall of 1:40.



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

Doorways within Vestibules and Airlocks

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.

Doorways within Vestibules and Airlocks to Ambulant Toilets

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.

Hearing Augmentation

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.

Floor Finishes

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

Carpet

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

Controls

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

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

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.

As a guide, AS1288 (2006) states that the following glazed areas are not considered capable of being mistaken for a doorway:

- The width is less than or equal to 500mm
- The height h is less than or equal to 1000mm
- The lowest point of the opening is 500mm or greater above the floor /ground level
- The glazing is opaque, patterned or a leadlight
- Where a chair / crash rail, handrail or transom is provided and located with its upper edges not less than 700mm or its bottom edge not more than 1000mm above the floor
- The panels are louvres with a blade width not greater than 230mm
- The glazing protects a difference in level of 1000mm or more (a balustrade system)

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).

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.





Exit Level G



Access to Swimming Pool

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.

Unisex Accessible Sanitary Compartment

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

- a. Accessible toilet facilities to be unisex facilities for compliance with the BCA.
- b. Unisex accessible facilities to comply with AS1428.1(2009), Clause 15 including set-out of fittings and fixtures, circulation areas and doorways.
- c. Where more than one unisex accessible toilet is provided within the building, they should be in a mirrored configuration to allow for both left and right-handed use.

WC Pan:

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



- e. Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

Basin:

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

Door:

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

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.



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.

Terminology (Best-practice recommendation)

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

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 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 (± 20) and 850mm (± 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.

Visual Indication to Glazing (additional measures)

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

Luminance Contrast

Luminance contrast assists people with a vision impairment to navigate the built environment. Mandatory items within the BCA and AS1428.1 that require luminance contrast are tactile indicators, accessible toilet seats and doorways. Provision of a minimum 30% luminance contrast between the following elements can also be provided as a best practice measure to ensure ease of use:

- between floors and walls or between walls and skirting boards;
- between the ground surface and obstructions such as columns, bollards and street furniture;
- between the floor and the entrance mat, where provided (this allows people with vision impairment to locate the entrance).
- between handrails and mounting surface
- between door and door hardware
- between bathroom fittings and mounting surface

Furniture and Joinery Hardware

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

Picnic Tables

For accessible picnic tables, the typical bench seating should be omitted to one side to provide a clear space under to facilitate wheelchair access. The height of the table should be between 750mm (± 20) and 850mm (± 20) per AS1428.2 (1992) requirements for accessible tables / counters generally.

Barbeques

The height of the accessible barbeques should ideally be between 750mm (± 20) and 850mm (± 20) per AS1428.2 (1992) requirements for accessible kitchen counters generally. Controls should; be located at the front of the cooktop for ease of reach.

Wayfinding – Signage

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

Wayfinding – Landmarks and Tactile Indicators

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.



Lighting and Glare

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

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

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

