DESIGN CONFIDENCE

Access Design Assessment Report

AUDAA

62 Old Barrenjoey Road
Avalon NSW 2107

ACCESSIBILITY | BUILDING REGULATIONS | FIRE ENGINEERING | MANAGEMENT SERVICES

DESIGN CONFIDENCE

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Document Type:	Access Design Assessment Report
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The following report register documents the development and issue of this and each subsequent report(s) undertaken by Design Confidence (Sydney) Pty Ltd.

Revision History—

OUR REFERENCE	REMARKS	ISSUE DATE
P219_269-1 (ACCESS) NH	Report issued to accompany Development Application submission	19 July 2019
P219_269-2 (ACCESS) YW	Revised report issued to client	29 Jun 2020

1.0 INTRODUCTION

1.1 General

This Access Design Assessment report has been prepared at the request of AUDAA and relates to the proposed mixed-use development located at 62 Old Barrenjoey Road Avalon Beach.

This report is based upon, and limited to, the information depicted in the documentation provided for assessment, and does not make any assumptions regarding 'design intention' or the like.

1.2 Purpose of Report

The purpose of this report is to identify the extent to which the architectural design documentation complies with the *accessibility provisions* of the Building Code of Australia 2019 (hereinafter referred to as the BCA) Volume 1, as are principally contained within Parts D3, E3.6 & F2.4.

This report is based upon, and limited to, the information depicted in the documentation provided for assessment and does not make any assumptions regarding design intention or the like.

1.3 Documentation Provided for Assessment

This assessment is based upon the architectural documentation prepared by AUDAA and listed within Appendix 1.

1.4 Report Exclusions

It is conveyed that this report should not be construed to infer that an assessment for compliance with the following has been undertaken—

(i) Work Health & Safety Act and Regulations; and

(ii) WorkCover Authority requirements; and

(iii) Structural and Services Design Documentation; and

(iv) The Disability Discrimination Act (DDA) 1992; and

(v) Any parts of the BCA or any standards other than those directly referenced in this report; and

(vi) The Disability (Access to Premises – Buildings) Standards 2010.

2.0 DEVELOPMENT DESCRIPTION

2.1 General

In accordance with the Building Code of Australia, the assessment undertaken relates to the proposed mixed-use development located at 62 Old Barrenjoey Road, Avalon Beach.

2.2 Building Description

In the context of this report and the BCA the building use can be described as follows—

DESCRIPTION OR REQUIREMENT		
Building Classification	Residential	2
	Retail	6
	Garage / Carpark	7a
Storeys contained	Three (3)	

Table 2 – Building Characteristics

2.3 BCA Assessment – Interpretation Notes

To provide the reader with additional context the following information regarding assessment methodology used in this assessment is provided below—

(i) The following rooms / areas and associated accessways have been afforded the concession under D3.4 and access for people with disabilities need not be provided to these areas—

- Plant and equipment rooms (and associated accessways);
- Store room/s;
- Garbage store.

(ii) The proposed lift within the retail tenancy has been treated as being a stairway platform lift;

(iii) The garage has been treated as containing a non-designated accessible car space and associated shared space for use by the retail tenancy.

3.0 BCA ACCESS DESIGN ASSESSMENT SUMMARY

3.1 General

The following table summarises the compliance status of the architectural design in terms of each *applicable* prescriptive provision of the BCA and indicates a capability for compliance with the BCA.

It should be recognised that in the following table instances exist where *prescriptive non-compliance* occurs or *design detail* is required; such instances should not necessarily be considered BCA deficiencies, but rather matters which need to be considered by the design team and any assessment authority at relevant stages of design and/or assessment.

For those instances of either *Does not Comply* or *Design Detail*, a detailed analysis and commentary is provided within Section 4.0 of this report.

3.2 Part D3 – Access for People with Disabilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
D3.1	General building access requirements			✓
D3.2	Access to buildings			✓
D3.3	Parts of buildings to be accessible		✓	
D3.5	Accessible carparking			✓
D3.6	Signage			✓
D3.7	Hearing augmentation		N/A	
D3.8	Tactile indicators			✓
D3.9	Wheelchair seating spaces in Class 9b assembly buildings		N/A	
D3.10	Swimming pools		N/A	
D3.11	Ramps		N/A	
D3.12	Glazing on an accessway			✓

3.3 Part E3 – Lift Installations

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
E3.6	Passenger lifts			✓

3.4 Part F2 – Sanitary and Other Facilities

BCA CLAUSE		COMPLIES	DOES NOT COMPLY	DESIGN DETAIL
F2.4	Accessible sanitary facilities		✓	

4.0 BCA DETAILED ASSESSMENT

4.1 General

With reference to the Assessment Summary contained within Section 3.0 of this report the following detailed analysis and commentary is provided.

This commentary is formulated to enable the design documentation to be further progressed and for the purpose of evidencing the attainment of compliance with the relevant *accessibility provisions* of the BCA.

Access is required to and throughout the building to the extent nominated within the BCA and as identified below.

4.2 Part D3 – Access for People with Disabilities

D3.1 <u>General building access requirements</u>

Access to and within the Class 2 part is proposed to be provided via a single stairway only to the entrance doorways of the units on the first floor.

Whilst the proposed access to the Class 2 part has been identified, compliance is readily achievable via a performance-based solution that would demonstrate compliance with the relevant performance requirement/s of the BCA.

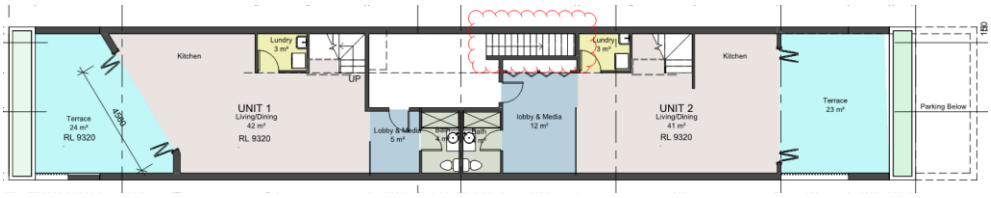

Figure 1 – Stairway to the entrance doorways of the units on the first floor

Notwithstanding the above, access to and within –

- Class 2 part must be provided from a pedestrian entrance to the entrance door to at least one floor containing sole occupancy units and to the entrance doorway of each sole occupancy unit located on that level (excluding those areas identified within Section 2.3 above).
- Class 6 part is to be provided to and within all areas normally used by occupants (excluding those areas identified within Section 2.3 above).
- Class 7a part, where accessible car parking space/s are provided (excluding those areas identified within Section 2.3 above).

D3.2 <u>Access to buildings</u>

The following items are raised, not as discrepancies, but as items to be addressed during design progression -

<u>*Doorways / doors / gates*</u>

D3.2 Access to buildings

(i) All doors and gates on the continuous accessible path to have a minimum 850mm clear width and appropriate hinge and latch side clearance compliant with AS1428.1-2009;

(ii) Doors to be located on level landing areas with maximum 1:40 grade fall over a 1450mm depth clearance;

(iii) Doors to have minimum 1450mm clearances between open door swings within airlocks/vestibules and other similarly enclosed spaces;

(iv) Door operational force to be lightweight in design to satisfy the operational requirements of AS1428.1-2009. Where this cannot be achieved, automatic or power-operated doors are required;

(v) All doorways shall have a minimum luminance contrast of 30% between –

- door leaf and door jamb;
- door leaf and adjacent wall;
- architrave and wall;
- door leaf and architrave; or
- door jamb and adjacent wall.

(vi) The minimum width of the area of luminance contrast shall be 50mm; and

(vii) Provide compliant door hardware located at a suitable location in accordance with AS1428.1-2009.

Floor or ground surfaces

(i) A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with ambulant or sensory disability;

(ii) Abutment of surfaces shall have a smooth transition. Design transition shall be 0mm, however, construction tolerances are as follows—

- 0 ±3mm vertical change in level; and
- 0 ±5mm change in level provided the edges have a bevelled or rounded edge to reduce the likelihood of tripping.

(iii) Grates within an accessible path of travel—

- Circular openings shall be not greater than 13 mm in diameter;
- Slotted openings shall be not greater than 13 mm wide and be oriented so that the long dimension is transverse to the dominant direction of travel; and
- Where slotted openings are less than 8 mm, the length of the slots may continue across the width of paths of travel.

Threshold ramps

Threshold ramps at doorways shall—

(i) Have a maximum rise of 35mm;

D3.2 Access to buildings

(ii) Have a maximum length of 280mm;

(iii) Have a maximum gradient of 1:8; and

(iv) Be located within 20mm of the door leaf.

Controls, Switches and GPOs

(i) Intercoms and door release devices to be located between 900-1250mm from FFL and no less than 500mm from an internal corner, compliant with AS1428.1-2009;

(ii) Power-operated doors to have raised buttons of 25mm in diameter. Controls to be located between 1-2m of door in its open position, 900-1250mm from FFL and no less than 500mm from an internal corner in accordance with AS1428.1-2009; and

(iii) All push pad switches shall have a minimum diameter of 25mm

Detail shall be provided within future design progression for compliance assessment and comment at CC stage.

D3.3 Parts of buildings to be accessible

The following items have been identified as compliance deficiencies –

(i) The main accessway of the retail tenancy is under sized, an 850mm clear door width (920 door leaf) is required.

(ii) The stairway connecting between floors provides for both communication and egress, the following provisions are required for DA:

- Minimum 1000mm unobstructed width;
- Handrails to both sides;
- Appropriate handrail extensions top and bottom of the stairway;
- TGSIs to the top and bottom of the stairway,

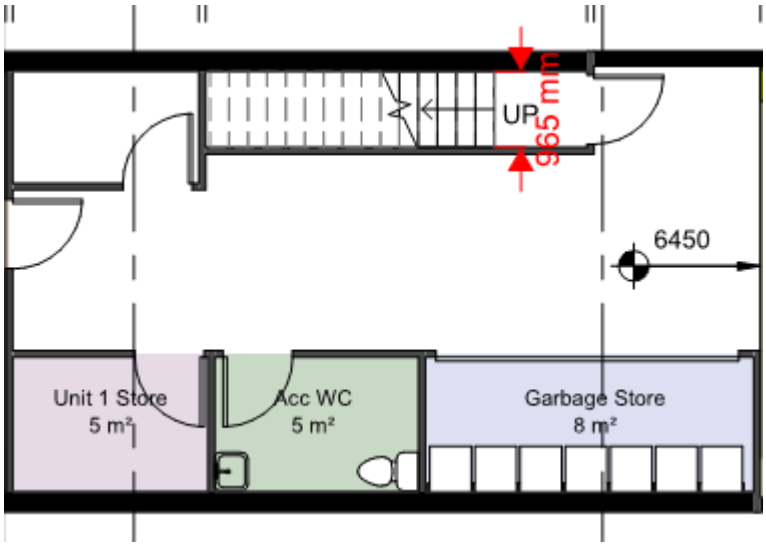

Figure 2 – Proposed central stairway

D3.3 Parts of buildings to be accessible

(iii) The stairway serving the internal split level of the Class 6 tenancy is not shown to be provided with handrails each side of the stairway and TGSI's at each level landing.

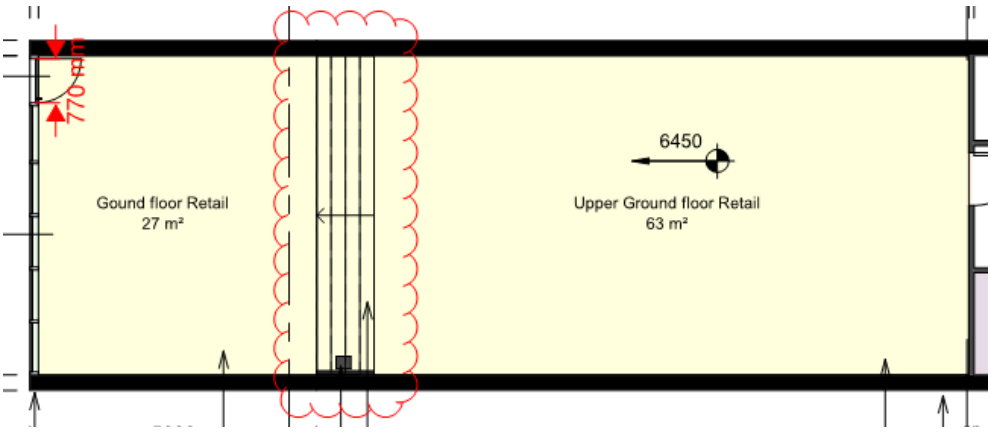

Figure 3 – Main entrance doorway and internal stairway of the retail tenancy

Whilst the above issues have been identified as deficiencies, compliance is readily achievable via the design development. However, the principle entrance of the retail needs to be revised to be compliant as outlined above prior to DA submission.

The following matters are raised, not as deficiencies, but items to be addressed during design progression -

Paths of travel

(i) The minimum width of the continuous accessible path to be 1000mm, with a minimum unobstructed height of 2000mm, or 1980mm at doorways.

Doorways / doors

(i) All doors to have a minimum 850mm clear width and appropriate hinge and latch side clearance compliant with AS1428.1-2009;

(ii) Doors to be located on level landing areas with maximum 1:40 grade fall over a 1450mm depth clearance;

(iii) Doors to have minimum 1450mm clearances between open door swings within airlocks/vestibules and other similarly enclosed spaces;

(iv) Door operational force to be lightweight in design to satisfy the operational requirements of AS1428.1-2009. Where this cannot be achieved, automatic or power-operated doors are required;

(v) All doorways shall have a minimum luminance contrast of 30% between—

- door leaf and door jamb;
- door leaf and adjacent wall;
- architrave and wall;
- door leaf and architrave; or
- door jamb and adjacent wall.

D3.3 Parts of buildings to be accessible

(vi) The minimum width of the area of luminance contrast shall be 50mm; and

(vii) Provide compliant door hardware located at a suitable location in accordance with AS1428.1-2009.

Threshold ramps

Threshold ramps at doorways shall—

(i) Have a maximum rise of 35mm;

(ii) Have a maximum length of 280mm;

(iii) Have a maximum gradient of 1:8; and

(iv) Be located within 20mm of the door leaf.

Floor or ground surfaces

(i) A continuous accessible path of travel and any circulation spaces shall have a slip-resistant surface. The texture of the surface shall be traversable by people who use a wheelchair and those with ambulant or sensory disability;

(ii) Abutment of surfaces shall have a smooth transition. Design transition shall be 0mm, however, construction tolerances are as follows—

- 0 ±3mm vertical change in level; and
- 0 ±5mm change in level provided the edges have a bevelled or rounded edge to reduce the likelihood of tripping.

(iii) Where carpets or any soft flexible materials are used on the ground or floor surface—

- The pile height or pile thickness, shall not exceed 11mm and the carpet backing thickness shall not exceed 4mm;
- Exposed edges of floor covering shall be fastened to the floor surface and shall have a trim along the entire length of any exposed edge; and
- At the leading edges, carpet trims and any soft flexible materials shall have a vertical face no higher than 3mm or a rounded bevelled edge no higher than 5mm or above that height a gradient of 1:8 up to a total maximum height of 10mm.

(iv) Matting recessed within an accessible path of travel—

- Where of metal and bristle type construction or similar, its surface shall be no more than 3mm if vertical or 5mm if rounded or bevelled, above or below the surrounding surface; and
- Where of a mat or carpet type material, shall have the fully compressed surface level with or above the surrounding surface with a level difference no greater than 3mm if vertical or 5mm if rounded or bevelled.

(v) Grates within an accessible path of travel—

D3.3 Parts of buildings to be accessible

- Circular openings shall be not greater than 13 mm in diameter;
- Slotted openings shall be not greater than 13 mm wide and be oriented so that the long dimension is transverse to the dominant direction of travel; and
- Where slotted openings are less than 8 mm, the length of the slots may continue across the width of paths of travel.

Stairway/s

(i) Any riser contained within a stairway must be opaque;

(ii) Riser to have a maximum vertical splay of 25mm from the nosing;

(iii) Stair nosing profiles shall:

- be chamfered up to 5 mm × 5 mm; or
- have a sharp intersection; or
- be rounded up to 5 mm radius.

(iv) At the nosing, each tread shall have a strip not less than 50 mm and not more than 75mm deep across the full width of the path of travel with 30% luminance contrast to the background;

(v) The contrast strip may be set back a maximum of 15mm from the front of the nosing;

(vi) Stairways, except a fire-isolated stairway, must comply with clause 11 and 12 of AS1428.1-2009.

Controls, Switches and GPOs

(i) Intercoms and door release devices to be located between 900-1250mm from FFL and no less than 500mm from an internal corner, compliant with AS1428.1-2009;

(ii) Power-operated doors to have raised buttons of 25mm in diameter. Controls to be located between 1-2m of door in its open position, 900-1250mm from FFL and no less than 500mm from an internal corner in accordance with AS1428.1-2009; and

(iii) All push pad switches shall have a minimum diameter of 25mm.

Further detail as outlined above shall be provided within future design progression for compliance assessment and comment.

D3.5 Accessible carparking

Accessible carparking spaces must be provided in accordance with Table D3.5, being not less than 1 for every 50 car spaces provided for the class 6 tenancy.

Accessible carparking spaces need not be identified with signage where there is a total of not more than 5 carparking spaces, so as to restrict the use of the carparking space only for people with a disability. Spatial provision shall

D3.5 Accessible carparking

be provided to accommodate an accessible carparking space and associated shared area in accordance with AS/NZS 2890.6:2009.

D3.6 Signage

Clear and legible Braille and tactile signage complying with Specification D3.6 of the BCA and incorporating the international symbol of access or deafness, in accordance with AS1428.1-2009 and located between 1200-1600mm from the floor must identify the accessible sanitary facility and also identify if the facility is suitable for left or right-handed use.

Information in relation to signage is adequate for DA submission. Further detail as outlined above shall be provided within future design progression for compliance assessment and comment.

D3.7 Hearing augmentation

Not applicable.

D3.8 Tactile indicators

Tactile ground surface indicators complying with sections 1 and 2 of AS1428.4.1-2009 must be provided to warn people who are blind or have a vision impairment that they are approaching—

(i) A stairway (other than a fire isolated stairway);

(ii) An overhead obstruction (other than a doorway) less than 2m above floor level in the absence of a suitable barrier.

Tactile ground surface indicators shall be designed in accordance with AS1428.4.1:2009. Warning indicators should be installed as follows—

(i) For the full width of the path of travel;

(ii) Perpendicular to the direction of travel when approaching the hazard;

(iii) Setback 300 ±10mm from the edge of the hazard (except at railways and wharves);

(iv) Integrated warning TGSIs which are required to be detected by a person approaching at an angle to the continuous path of travel should be arranged over a minimum depth of 600-800mm from the direction of approach (and in accordance with AS1428.4.1:2009 Figure 2.1);

(v) Discrete warning TGSIs used over a depth of 300-400mm require a minimum of 6 truncated cones, provided in the direction of travel (and in accordance with AS1428.4.1:2009 Figure 2.1);

(vi) Where discrete warning TGSIs need to be detected by a person approaching at an angle to the continuous accessible path, a minimum of 12 truncated cones are required in the direction of travel (and in accordance with AS1428.4.1:2009 Figure 2.1).

D3.8 Tactile indicators

At stairways -

(i) Where a landing is 3000mm or more to the nosing edge the warning indicators should be over a distance of 600-800mm;

(ii) Where a landing is less than 3000mm to the nearest nosing edge, indicators shall be over a distance of 300-400mm;

(iii) Where handrails are continuous on both sides of the landing and the landing is less than 3000mm to the nearest nosing edge TGSIs are not required.

Information in relation to tactiles is adequate for DA submission. Further detail as outlined above shall be provided within future design progression for compliance assessment and comment.

D3.9 Wheelchair seating spaces in Class 9b assembly buildings

Not applicable.

D3.10 Swimming pools

Not applicable.

D3.11 Ramps

Not applicable.

D3.12 Glazing on an accessway

Where there is no chair rail, handrail or transom, all frameless or fully glazed doors, sidelights, including any glazing capable of being mistaken for a doorway or opening, shall be clearly marked for their full width with a solid contrasting line, in accordance with Clause 6.6 of AS1428.1-2009—

(i) The contrasting line shall be not less than 75mm wide and shall extend across the full width of the glazing panel. The lower edge of the contrasting line shall be located between 900mm and 1000mm above the plane of the finished floor level; and

(ii) Any contrasting line on the glazing shall provide a minimum of 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side.

Information in relation to glazing is adequate for DA submission. Further detail as outlined above shall be provided within future design progression for compliance assessment and comment.

4.3 Part E3 – Lift Installations

E3.6 Passenger lifts

The stairway platform lift within the retail tenancy must comply with the following -

(i) Be an approved type identified in Table E3.6a;

(ii) Have a lift floor dimension of not less than 810mm wide x 1200mm deep;

(iii) Not rely on a constant pressure device for its operation if the lift car is fully enclosed;

(iv) Have a passenger protection system in accordance with Clause 4.2 of AS1735.12-1999.

A stairway platform lift is proposed which will link the Ground floor retail with the upper level retail space for ease of access for people with all abilities.

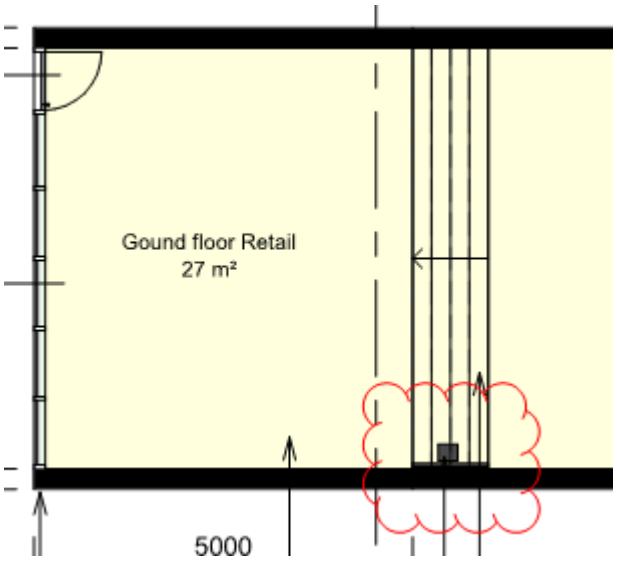

Figure 4 – Location of the stairway platform lift

Detail such as lift specification shall be provided within future design progression for compliance assessment and comment.

4.4 Part F2 – Accessible sanitary and other facilities

F2.4 Sanitary Facilities

The proposed accessible WC within the retail tenancy shall have the location of fixtures and fittings provided in accordance with Clause 15 of AS1428.1-2009.

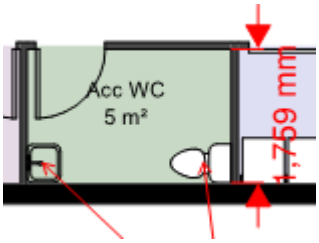

Figure 5 – Proposed accessible bathroom on the ground floor

F2.4 Sanitary Facilities

The general circulation perimeter appears to be undersized. The fixtures and fittings, such as the location of the pan and basin shall be in accordance with AS1428.1:2009. Noting the following provisions:

- Minimum 1900mm (W) x 2300mm (L) circulation space required to the WC pan, with a maximum 100mm encroachment by the washbasin (except where the washbasin is located on the side wall directly opposite the WC pan, where no encroachment is permitted).
- The minimum 1900mm (W) shall be free of any wall mounted fixtures, such as a paper towel dispensing unit.
- Any wall mounted fixtures shall have a minimum 900mm height clearance from FFL, and a maximum projection of 150mm from the finished wall surface so as not to protrude into the minimum 1900mm circulation zone.
- Minimum 300mm clearance to be provided between the door swing and washbasin.
- Location of the basin and the WC pan shall be as per the figure below:

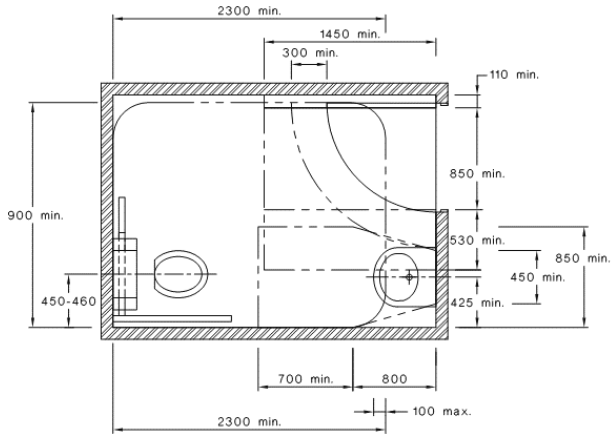

Figure 6 – Example of overlapping circulation spaces in a sanitary compartment (Figure 52 AS 1428.1:2009)

Further detailed information as outlined above shall be provided for further assessment prior to DA submission.

Report By	Verified By
DRAFT	DRAFT
Yolanda Wang **Associate** For Design Confidence (Sydney) Pty Ltd	Luke Sheehy **Principal** For Design Confidence (Sydney)Pty Ltd

APPENDIX 1

This accessibility assessment was based upon the architectural documentation prepared by AUDAA, namely—

DRAWING NUMBER	DESCRIPTION	REVISION	DATE
A104	SITE PLAN	01	25.03.2019
A105	GROUND	01	25.03.2019
A106	LEVEL 1	01	25.03.2019
A107	LEVEL 2	01	25.03.2019
A109	ELEVATIONS	01	25.03.2019
A110	ELEVATIONS 2	01	25.03.2019
A111	SECTIONS	01	25.03.2019

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