GROUPDLA

Accessibility Compliance Report

Disability (Access to Premises – Building) Standards 2010 & Building Code of Australia (BCA) 2019

PROJECT NAME: The new Sydney Fish Market – SSDA Review Stage

PROJECT NO.: GDL 180011

DATE: 27/09/2019

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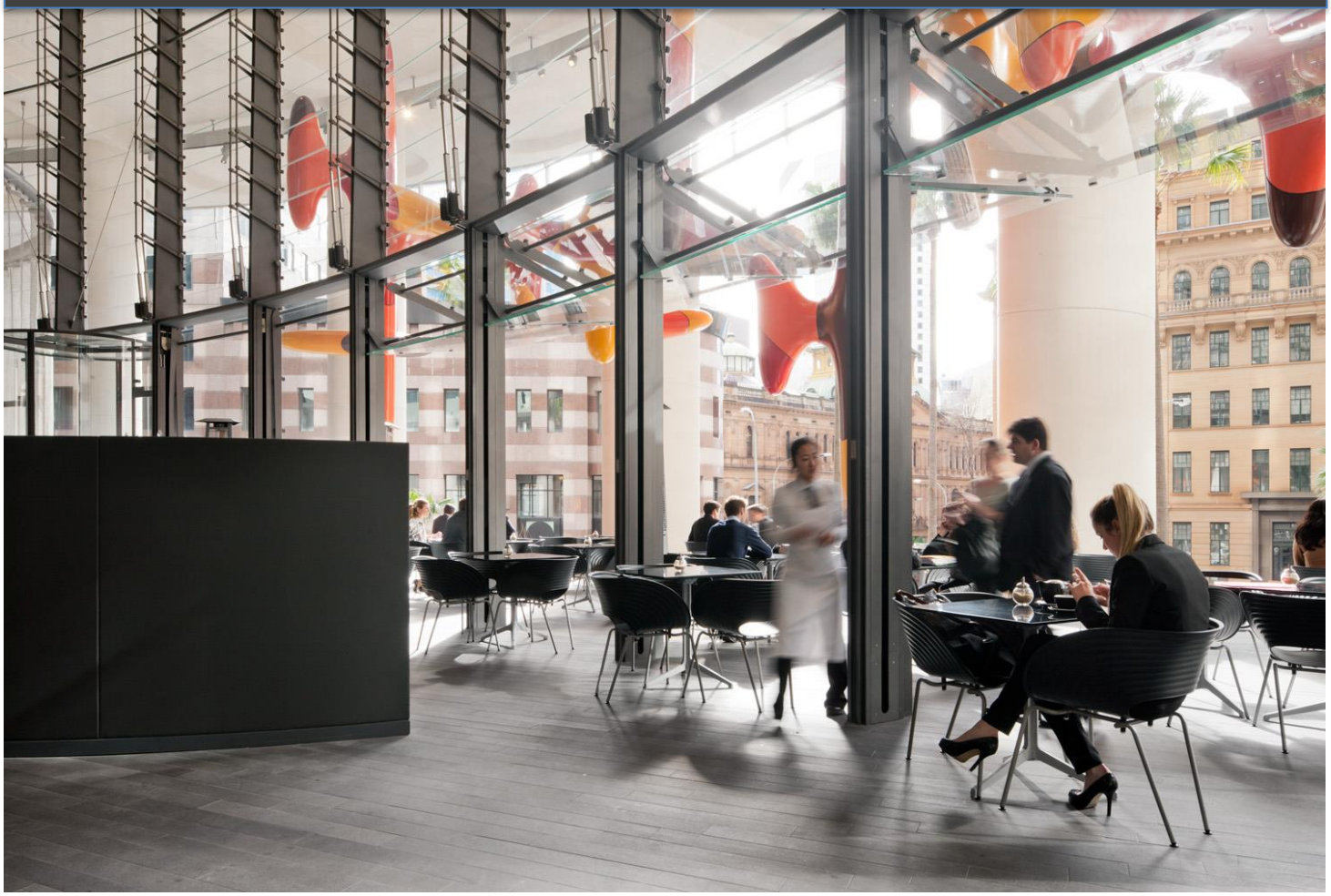

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REVISION HISTORY

Revision	Date	Details	Authorised	
			Name/Position	Signature
1	See BCA report	See BCA report	--	--
2	27.09.2018	Accessibility Assessment Report – Rev. 2	--	--
3	02.04.2019	Accessibility Assessment Report – Rev. 3 for SSDA	--	--
4	11.04.2019	Accessibility Assessment Report – Rev. 4 for SSDA	--	--
5	20.08.2019	Accessibility Assessment Report – Rev. 5 DD Review (70%) Tender Stage DRAFT	--	--
6	11.09.2019	Accessibility Assessment Report – Rev. 6 SSDA Stage DRAFT	--	--
7	24.09.2019	Accessibility Assessment Report – Rev. 7 SSDA Stage	--	--
8	27.09.2019	Accessibility Assessment Report – Rev. 7 SSDA Stage	**Prepared:** Elisa Moechtar Manager – Access Consultancy ACAA Member 198	
			Reviewed: Brett Clabburn Director NSW BPB 0064	

Table 1 – Revision History

1.0 EXECUTIVE SUMMARY

The report has been prepared for the development known as The new Sydney Fish Market, located at 1B Bridge Road, Glebe NSW to assess accessibility compliance with the Disability (Access to Premises – Buildings) Standards 2010 (Premises Standards), the access provisions of the Building Code of Australia 2019 (BCA) and referenced access standards.

The information submitted and assessed at this stage of the design is to accompany the State Significant Development (SSDA) planning application. The accessibility report provides a summary of access provisions, design requirements and parameters to be adopted as part of the compliance strategy to ensure reasonable access provisions for people with disability to and within the development.

In our opinion, with ongoing design development and with inclusion of the access provisions and design requirements outlined within Section 4.0 Accessibility Assessment of this report, the proposed design is capable of compliance with the statutory accessibility legislation outlined above. This will be achieved through a combination of compliance with the deemed to satisfy (DTS) provisions and the Performance Requirements of the BCA, listed in the Section 5.0. Summary of Access Performance Solutions identified at this stage of the design.

2.0 INTRODUCTION

2.1 Report Purpose:

The purpose of this report is to assess the accessibility provisions of the development known as The new Sydney Fish Market, located at 1B Bridge Road, Glebe NSW at SSDA stage for compliance with the legislative access requirements outlined in Section 2.3.

The report will address the SSD 8925 Stage 2 Main Works SEARs, in particular:

> *Item 21: Provide a BCA, **access report** and fire safety assessment demonstrating compliance with the BCA.*

The Access review has been limited to the Architectural Drawings provided which detail sufficient information to enable an Access assessment report to be produced at SSDA Stage.

It is to be noted however, that as the design progresses through design development stage, further developed architectural plans will need to be reassessed as necessary to ensure a complete access assessment is concluded prior to building approval/Crown Certification phase.

The report is prepared based on a review of the documentation listed in Table 5 and the information provided by the client and is intended for their use only.

2.2 Reporting Team

The information contained within this report was prepared by Elisa Moechtar, ACAA Accredited Access Consultant (No:198) and reviewed by Brett Clabburn, Accredited Certifier Grade A1 (BPB0064) from Group DLA.

2.3 Legislative Requirements

The assessment has considered the following legislation and referenced access standards:

- Disability Discrimination Act 1992 (DDA);
- Disability Access to Premises Standards 2010 (Premises Standards), including Access Code;
- Building Code of Australia (BCA 2019) – Part D3, Part E3.6, F2.4, F2.9
- Applicable Australian Standards AS1428.1:2009, AS1428.4.1:2009, AS2890.6:2009, AS1735.12-1999

A summary outline of these key reference documents is included below:

- The **DDA** objectives focus on the provision of equitable, independent, and dignified access to services, facilities and premises for people with mobility, sensory and cognitive disability. The DDA makes it is unlawful to discriminate against people on the grounds of disability. Premises is broadly defined under the DDA - Section 23 to include not only buildings but many other aspects of the built environment, including streetscapes and open space areas as well as non-building elements like furniture, fixtures and fittings. The DDA covers existing buildings, including heritage buildings, those under construction and future premises. The DDA applies nationally and is a complaints-based legislation administered by the Australian Human Rights Commission (AHRC).

- The **Premises Standards** is a statutory instrument made under the DDA to outline how DDA obligations can be met for new building work. Its purpose is to ensure that dignified, equitable, cost-effective and reasonably achievable access to buildings and facilities and services within buildings is provided for people with disability; and to give certainty to the people responsible for compliance that if the Standards are complied with that they cannot be subject to a successful complaint under the DDA in relation to the matters covered by the Standards.

- The Premises Standards includes an **Access Code** for Buildings that is mirrored in the access provisions of the **Building Code of Australia (BCA)** in Parts D3, E3.6 and F2.4. Under the Premises Standards, new building work and the ‘’Affected Part’’ of existing buildings must comply in the same manner as it is required

to comply with the BCA, by meeting deemed to satisfy (DtS) provisions or by adopting a performance solution that achieves the relevant performance requirements. The DtS provisions reference standards, including parts of the AS1428 Suite to outline technical criteria and minimum requirements to achieve reasonable access provisions for people with disability.

- It is important to note that compliance with the Premises Standards and the Access Code will ensure that DDA non-discrimination requirements are met for all matters/areas covered by the Standards. However, for any matters/areas that are not covered by the Premises Standards, the over-arching DDA legislation will still apply and it cannot be guaranteed that a successful complaint cannot be lodged.

- **AS1428 Suite – Design for Access and Mobility** provides technical criteria and min. requirements related to accessible design for the independent use of people with disability. It focuses on the provision of continuous accessible paths of travel, circulation, facilities and access features for people using wheelchairs, people with ambulant disability and people with sensory (vision and hearing) disability.

- **Part 1:** AS1428.1 (2009) is referenced by BCA 2019 and includes mandatory access requirements for the provision of access for people with disability for new developments. The (2009) revision of AS1428.1 adopted the increased circulation requirements of AS1428.2 (1992) that were developed to satisfy the needs of 90% of people with disability (between 18-60 years age).

- **Part 4:** AS1428.4.1 (2009) is referenced by BCA 2019 and contains mandatory access requirements for Tactile ground surface indicators (TGSIs) to assist the orientation of people with vision impairment.

- **AS 2890.6** (2009) - is referenced by BCA 2019 and contains mandatory access requirements for accessible car parking (off-street) for people with disability.

- **AS1735.12** (1999)– is referenced by BCA 2019 and contains mandatory access requirements for Passenger lifts, escalators and moving walks to assist people with disability.

Building Code of Australia 2019 (BCA – 2019)

The applicable legislation governing the design of buildings is the Environmental Planning and Assessment Act 1979. Whilst we await final confirmation on the building approval mechanism for this development, we believe it is likely to be a Crown project. The provisions of Section 6.28 (Crown Building Work), of this Act require that the building work be carried out in accordance with the access provisions of the Building Code of Australia (BCA). The application of compliance with the particular version of the BCA is the date on which tenders are issued. In this case the application of the provisions of the BCA 2019 is assumed as the relevant code, as tenders are anticipated to be issued during the period of 1 May 2019 to 1 May 2022.

Table 2 below outlines the BCA 2019 relevant parts to meet the DtS access provisions to satisfy the relevant BCA performance requirements DP1, DP2, DP4, DP6, DP7, DP8, DP9; EP3.4; FP2.1.

BCA 2019 – Summary of Access Provisions – Clause by Clause	
Part D3, F2.4, F2.9, E3.6	
Clause	**Requirement**
D3.1	General building access requirements
D3.2	Access to buildings (that outlines requirements for accessways, entrances and doors)
D3.3	Parts of buildings to be accessible (and meet requirements of AS1428.1)
D3.4	Exemptions
D3.5	Accessible carparking
D3.6	Signage (for identification of accessible facilities, services and features)
D3.7	Hearing Augmentation
D3.8	Tactile Indicators
D3.9	Wheelchair seating spaces in Class 9b assembly buildings
D3.10	Swimming pools
D3.11	Ramps
D3.12	Glazing on an accessway
Specification D3.6	Braille and tactile signs
Specification D3.10	Accessible water entry/exit for swimming pools
E3.6	Passenger lifts
F2.4	Accessible sanitary facilities (for accessible toilets, accessible showers, ambulant toilets)
F2.9	Accessible adult change facilities
Specification F2.9	Accessible adult change facilities

Table 2 – BCA 2019 Summary of Access Provisions

2.4 Additional Design Guidelines Legislative:

The report assessment has also made reference to other access design guidelines and/or advisory standards (that do not form part of a formal BCA/Access Code assessment) where relevant to promote equity and dignity in line with the primary objectives of the DDA and a Universal Design approach, including:

- Universal Design Principles – that consider the diversity of all users to maximise functionality and embed accessibility within the design
- Better Placed – An integrated design policy for the built environment of New South Wales. This document is referenced as a document to be addressed in the SEARs for this project
- Human Rights Commission (HEREOC) Advisory Note February 2013 on streetscape, public, outdoor areas, fixtures, fittings and furniture – this document provides information on parts of the built environment not covered by the DDA Access to Premises Standards that continue to be subject to potential DDA discrimination complaints by people with disability if they experience an access barrier;
- AS1428.2:1992 - Enhanced and Additional requirements –with technical design guidance and requirements for fixtures and furniture
- AS3745:2010 – Planning for Emergencies in Facilities – Note: this standard is relevant for preparation of an emergency evacuation management plan for the building by the client/operator.

A summary outline of some key design planning considerations is included below:

- Consideration and integration of Universal Design (UD) principles within the design will promote equity, diversity and inclusion. UD principles consider the needs of a broad range of users including young and older people, people with children/using prams, people from other cultures/language groups, gender diverse people, visitors in transit and people with disability. By considering the diversity of users, the design can integrate accessibility, so functionality and benefits can be maximized, without adding on specialized 'accessible' features that can be costly, visually unappealing and may perpetuate exclusion and stigma.

- The seven Universal design principles for consideration in the ongoing design of the development include:

  Principle 1: Equitable Use
  Principle 2: Flexibility in Use
  Principle 3: Simple and Intuitive Use
  Principle 4: Perceptible Information
  Principle 5: Tolerance for Error
  Principle 6: Low Physical Effort
  Principle 7: Size and Space for Approach and use

- Universal design provides numerous benefits for the client/operator, associated businesses, individual users of the building and society in general. An inclusive environment that can be accessed, understood and used by as many people as possible, makes good business sense, is more sustainable for the environment and is socially progressive.

- These design principles align with the seven design objectives outlined in the NSW "Better Placed" design policy guidelines that the SEARs require the design of the development to respond to, including

  Objective 1: Better Fit
  Objective 2: Better Performance
  Objective 3: Better for Community
  Objective 4: Better for People
  Objective 5: Better Working
  Objective 6: Better Value
  Objective 7: Better Look and Feel

- **Part 2: AS1428.2 (1992)** is a non-mandatory standard that provides enhanced and best-practice design requirements for elements that are not covered in AS1428.1 such as fittings, furniture items.

Compliance with AS1428.2:1992 for these matters/areas is recognised as good/best practice and should be considered where achievable. For any building elements that are not covered by mandatory referenced standards, the DDA legislation will still apply and it cannot be guaranteed that a complaint cannot be lodged.

2.5 Limitations

This report assesses the access provisions of the proposed base-building development in general and does not include nor imply any detailed assessment for the design, fit-out, compliance or upgrading for:

- The structural adequacy or design of the building;
- The inherent derived fire-resistance ratings of any existing or proposed structural elements of the building (unless specifically referred to); and
- The design basis and/or operating capabilities of any existing or proposed electrical, mechanical or hydraulic fire protection services.
- This assessment is limited to the developed documentation at the date of this report and as referenced within the “Documentation Assessed” section of the Report.
- Requirements of other Regulatory Authorities including, but not limited to, Telstra, Telecommunications Supply Authority, Water Supply Authority, Electricity Supply Authority, Work Cover, Roads and Maritime Services (RMS), Local Council, ARTC, Department of Planning and the like;
- Demolition Standards not referred to by the BCA;
- BCA 2019 Sections B, C, E, F, G, H, I, J, Parts D1 and D2;
- Work Healthy and Safety Act 2011;
- Construction Safety Act;
- The National Construction Code – Plumbing Code of Australia Volume 3
- Conditions of Development Consent issued by the Consent Authority; and
- This report does not assess the safety of any particular aspects of the building outside of the min. access provisions of the Disability Access to Premises Standards 2010 (Premises Standards), including the Access Code and access provisions of BCA 2019.

3.0 BUILDING DESCRIPTION

3.1 Building Site

The development site is located adjacent to the existing Fish Market building located in Bridge Road. The site is currently bounded by Blackwattle Bay to the north, Wentworth Park to the south, the existing Fish Market to the east and the Sydney Secondary College Blackwattle Bay to the west.

The main portion of the site consists of a large isolated building connected to public and private wharfs and surrounding by public domain spaces.

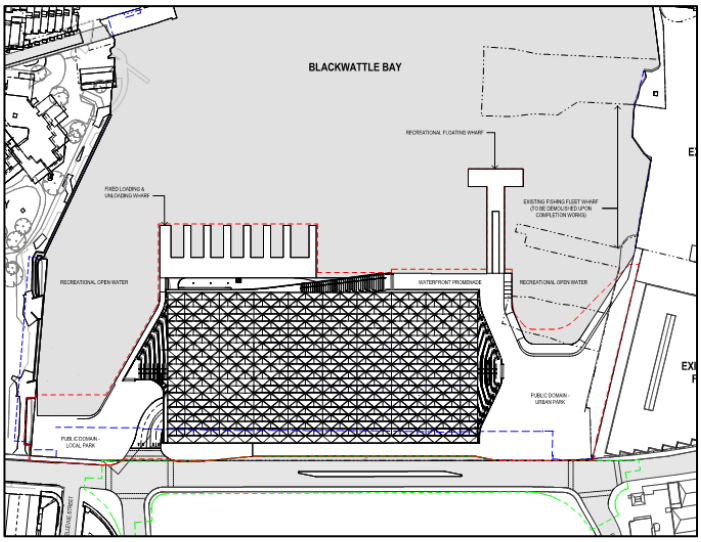

Figure 2 - Plan View of Site

3.2 Building Development

The building development subject of this report is located at 1B Bridge Road, Glebe NSW in front of Blackwattle Bay. The building comprises four (4) storeys plus one (1) basement carpark.

Figure 3 – Proposed development

The proposal is to build a new Sydney Fish Market with a contemporary urban design, provide unique experiences for visitors and world-class auction and wholesale facilities. The new facility will be set within an improved public domain including the creation of a waterfront promenade with improved access to Blackwattle Bay and linking to surrounding areas and to public transport.

The development will expand and improve the functions of the existing in a new setting designed to achieve design excellence, functional performance and environmental sustainability.

The new Sydney Fish Market will include retail and food and beverage premises, wholesale facilities and auction rooms, offices and commercial space, Sydney Seafood Schools, back-of-house facilities and car and truck parking spaces. The new facility is to include a new foreshore promenade and wharves. The new Sydney Fish Market will be purpose built and will be supported by a state of the art back-of-house plant and recycling/waste management facilities.

The Main Works State Significant Development Application seeks approval for:

1. the construction of The new Sydney Fish Market including land and water-based structures;
2. the use of the site for the fish market including waterfront commercial and tourist facilities and ancillary uses and the distribution of uses;
3. a gross floor area of approximately 25,4829.18 m2 as calculated according to the definition of GFA under SREP 26 (approximately 26,751.20m2 as calculated according to the definition of GFA under the Standard Instrument);
4. public domain works including promenades access to Blackwattle Bay and landscaping;
5. pedestrian, cycle and road access and circulation;
6. infrastructure provision and waste management;
7. associated works as required.

The proposed uses comprise:

<u>Below Ground Level</u>

- Parking for service and delivery, and private vehicles up to approximately 417 vehicles;
- Plant and storage;
- Waste Management facilities; and
- End of journey facilities.

<u>Ground Level - Outside of Building Envelope</u>

- Up to nine operational wharves for fishing fleet servicing and product unloading/loading, multi-purpose wharf space, private-operated ferry stop, recreational vehicles and the like;
- Vehicular access driveways; and
- Publicly accessible promenade.

<u>Ground Level - Within Building Envelope</u>

- Wholesale services space including product storage and processing; and
- Auction floor and associated refrigeration and handling space.
- Loading dock including time-limited delivery and service vehicle parking area;
- Waste management facilities;
- Office space including buyer's room;
- Public exhibition space;
- Staff amenities, plant and storage.

<u>Upper Ground Level (L1)</u>

- Retail premises including fresh food retail, food and drink premises including harbour-side dining;

- External/shared dining space;
- Ancillary back of house space and staff amenities; and
- Circulation areas.

Mezzanine (L2)

- Catering space;
- Retail premises and outdoor terrace areas;
- Office space and staff amenities;
- The Sydney Seafood School;
- Tenant and subtenant office space; and
- Plant and storage space.

3.3 Building Description

In accordance with the provisions of Clause A3.2 of BCA 2019 the building is classified as follow:

Class	Level	Description
7a	Basement	Carpark
7b + 7a	Ground floor	Wholesale + Carpark
6	Upper ground	Retail
5 + 9b + 6	Mezzanine	Office + Assembly (Seafood School) + Retail
Ancillary	Mezzanine Roof	Plant rooms

Table 3 – Building Class (or part)

3.4 Areas Required to be Accessible

In accordance with the provisions of Clause D3.1 of BCA 2019 the following areas of the building are required to be accessible:

Level	Area	Description
Basement and Ground portion	Carpark	To and within any level containing accessible car parking spaces
Ground	Wholesale, Retail and Office	To and within all areas normally used by the occupants
Ground	Public Exhibition Space (North East and South East corners)	To and within all areas normally used by the occupants
Upper ground	Retail	To and within all areas normally used by the occupants
Ground/Upper ground	Buyers Room/Auction Hall	To and within all areas normally used by the occupants.

		NB: As the Buyers Room/Auction Hall has less than 10% of floor area it is not classified as Class 9b assembly under the BCA, even though it includes fixed tiered seating. However, it is strongly recommended that wheelchair seating spaces be provided within this area in line with Clause D3.9, noting that access is not required to tiers or platforms of seating areas that do not contain wheelchair seating spaces.
Mezzanine	Office and Retail	To and within all areas normally used by the occupants
Mezzanine	Assembly (Seafood School)	To and within all areas normally used by the occupants

Table 4 – Areas Required to be Accessible

3.5 Documentation Assessed

This report is based on the following SSDA stage architectural documentation prepared by 3XN & BVN Architects:

Drawing Number	Title	Revision	Date
S2-A00 AAA-01	Cover Sheet	H	18/09/2019
S2-A20 AAA-01	Site Survey	H	18/09/2019
S2-A20 AAA-02	Locality / Context Plan	H	18/09/2019
S2-A20 AAA-03	Site Plan	H	18/09/2019
S2-A20 L01-01	Public Domain Ground	G	18/09/2019
S2-A20 L02-01	Public Domain Upper Ground	G	18/09/2019
S2-B10 L02-01	Floor Plan Mezzanine	H	18/09/2019
S2-B10 L03-01	Mezzanine Roof Plan	H	18/09/2019
S2-B10 L10-01	Roof Plan	H	18/09/2019
S2-B10 LB1-01	Floor Plan Basement	H	18/09/2019
S2-C10 AAA-01	East and West Elevation	H	18/09/2019
S2-C10 AAA-02	North and South Elevation	H	18/09/2019
S2-D10 AAA-01	Cross Sections	H	18/09/2019
S2-D10 AAA-02	Long Sections	H	18/09/2019
S2-E43 AAA-01	Auction & Office Section	H	18/09/2019
S2-E43 AAA-02	Food & Beverage Section	H	18/09/2019
S2-E43 AAA-04	Wholesale & Catering Section	H	18/09/2019
S2-L10 AAA-01	GFA Measurement SRWP 26	H	18/09/2019
S2-L10 AAA-02	GFA Standard Instrument	H	18/09/2019
S2-E43 AAA-03	Non-Retail Areas	E	18/09/2019
S2-L10 AAA-04	Retail Areas	E	18/09/2019
AR-S2-C10 AAA-A01	East & West Elevation	H	18/09/2019

AR-S2-A20 L02-01	Master Plan	G	19/09/2019
AR-S2-A20 L01-01	Master Plan	G	19/09/2019

Table 5 – Documentation Assessed

4.0 ACCESSIBILITY ASSESSMENT

4.1 Site Linkages & Public Domain Areas (Ref: DDA & AS1428.1)

Requirements and Recommendations:

The SSDA 8925 Main Works Design Report Section 2.3 (*Built Form & Urban Design Analysis),* describes the overall design strategy response to providing improved amenity, views, public space and connectivity to the site as: *'The proposed development has activated frontages on all sides promoting accessibility and connection around the bay'.*

This strategy supports the importance of providing accessible pedestrian connections throughout the public domain areas so that all people, including people with disability can interact and move to and from the external linkages that connect to the building, throughout the various promenade and through site-linkages and within activation areas.

By considering universal design principles and the AS 1428 suite of Standards, the overall aim is to maximise the provision of continuous accessible paths of travel to connect the various entrances of the new building to key transport linkages including: existing Wentworth Park and Fish Markets light rail stops, new Bridge Road bus and coach stops, new taxi stand/drop off areas, new public ferry/recreational wharf, cycle share-way path and public pathways to and through the public domain/landscape activation areas that surround and connect to the new building.

It is noted that generally the site allotment boundary is the line at which mandatory building requirements (BCA and Premises Standards and referenced standards) commence. However, the context of this unique development and its critical relationship to surrounding 'public domain' and pedestrian connections on all four side approaches, as part of the broader Bays Transformation area requires consideration of the bigger picture and this supports the over-arching objectives of the DDA.

The key access requirements and considerations for the external linkages to the building to ensure equitable, dignified and independent access for people with disability are summarised in the access strategy outlined below which relates to public domain areas:

- An accessible path of travel to and within the development site precinct (not solely to the building entrances as required by BCA) to be accessible, compliant with AS1428.1 as far as is possible within site constraints.
- An accessible path of travel from all public transport pick-up and set-down points within the development site to building entrances to be accessible, compliant with AS1428.1.
- Suitable access provisions to be developed for people with disability with regards to new footpath and pedestrian crossing areas, particularly any kerb-ramps, blended kerbs or flush roadway/cycle share-way crossing areas in accordance with AS1428.1 and AS1428.4.1.
- Any designated vehicular pick up/drop off areas (e.g. private vehicles, taxi, kiss and ride, uber etc.) on Bridge Road to be designed and developed to be accessible in compliance with AS2890.6 and AS1428.1.
- Any connecting kerb ramps or continuous access is required from vehicular drop off lay-back areas to enable access from roadway to footpath and safety for users, compliant with AS1428.1 and AS2890.6.
- The design of the new public ferry wharf (outside of this scope of works), any bus stops and taxi stand must be designed and developed in accordance with Disability Standards Accessible Public Transport (DSAPT), AS1428.2 and AS1428.4.1.
- The Waterfront Promenade, waterfront stairs/steps at water's edge to be developed to include suitable access/safety provisions along the accessible path of travel adjacent to and suitably set-back from the water's edge.

Assessment:

At this stage, review of the preliminary public domain documentation indicates that accessibility has been considered within the open space/landscape areas and pedestrian site approaches to the proposed building and from the key external transport linkages.

In general, the circulation areas and overall gradients (based on site levels available) indicate that access for people with disability is capable of meeting the proposed access strategy within the main areas that surround the building development of The Waterfront Plaza, The Civic Plaza, Bridge Road, The Western Plaza.

During design development landscape documentation should continue to consider and ensure that:

- accessways with required access features for people with disability include: continuous accessible paths of travel with suitable widths, gradients and lengths between landings, suitable cross-fall and level transitions between slip resistant traversable surfaces, and circulation areas in compliance with AS1428.1 are maximised as far as possible to and throughout public domain areas in line with the above access strategy.
- Civic and Western Plazas make provision for edge protection (e.g. raised kerbing or raised upturn elements to meet AS1428.1 etc) beside the continuous seating elements located between the upper and lower promenade areas to improve safety and provide shore-line edge to assist people with vision impairment.
- External stairs and walkways within Western Plaza Mangrove areas make provision for access features designed to meet AS1428.1.
- The spacing/gaps between the proposed wharf benches along all fore-shore areas be minimised to improve general safety.
- Street furniture, including fixed furniture benches (between upper and lower promenade areas) consider including some arm rests within the design to improve access for older people, people with ambulant disability (refer AS1428.2 for design guidance).
- All street furniture (e.g. rest seating, bins, bike hoops, planters, bollards, bubblers, public phones etc.) should have 30% min. luminance contrast to the background surface (i.e. floor-finish).
- Ensure top and base of all kerb ramps are perpendicular to path of travel across roadway to meet AS1428.4.1 and maintain 1500mm min. length at top of kerb-ramps to any obstruction. Note: ensuring kerb ramps have a gradient of between 1:8 – 1:8.5 gradient is recommended as it reduces the need for TGSI use.
- Consideration for an accessible drop-off area on Bridge Road, in close proximity to south-east building entrance to meet the intent of AS2890.6 with kerb ramp provision at rear for equitable access path from road to footpath for people with access needs (DDA/Advisory).

These considerations are achievable and should be maximised in line with universal design principles and DDA objectives prior to Crown Certification stage.

4.2 External Access to the Building (Ref: BCA/Access Code Clause D3.2 & AS1428.1)

Requirement:

To meet the BCA/Access Code, an accessway (i.e. continuous accessible path of travel, compliant with AS1428.1) is required to provide pedestrian access to the building for people with disability from:

- the main points of a pedestrian entry at the allotment boundary; and
- another accessible building connected by a pedestrian link; and

- any required accessible carparking space on the allotment.

In addition, common-use stairs providing pedestrian access to the building are to be compliant with AS1428.1 (Clause D3.3).

Assessment:

The building is a free-standing structure surrounded by common public domain open spaces, walkways, parks, podiums, etc. The design includes four main pedestrian site approach walkways from the allotment boundary to the building that include:

- North/eastern approach from the public ferry/recreational wharf and Waterfront Promenade public domain;
- Eastern approach from the Civic Plaza public domain;
- Southern approach from Bridge Road; and
- Western approach from the Western Plaza public domain.

At this stage, the access design review indicates the proposed accessways and linkages to the building from the site boundary are capable of achieving compliance with the above BCA/Access Code requirements for people with disability.

During design development:

- Required accessible walkways will include detailed access features including suitable widths, gradients and lengths between landings, minimal cross-fall and level transitions between slip resistant traversable surfaces, and circulation areas in compliance with AS1428.1.
- Refer also to Section 4.1 above and 4.3 below as there are overlaps between required access provisions within the external access to building from public domain/realm and car-parking areas

This is achievable and will occur prior to Crown Certification stage.

4.3 Accessible Car-Parking (BCA/Access Code Table D3.5, AS2890.6)

Requirement:

To meet the BCA/Access Code, accessible carparking spaces for people with disability are to be provided for the building in accordance with Table D3.5 as follows:

- Class 5, 7a and 7b development: 1 accessible carparking space required for every 100 carparking spaces (1%) or part thereof, compliant with AS2890.6;
- Class 6 development (up to 1000 carparking spaces): 1 accessible carparking spaces for every 50 carparking spaces (2%) or part thereof, compliant with AS2890.6;
- Class 9b school; 1 accessible carparking space required for every 100 carparking spaces (1%) or part thereof, compliant with AS2890.6;

The accessible carparking spaces need to be on a hardstand, level, firm surface in compliance with AS2890.6, including:

- Min. dimensions of 2400mm W x 5400mm L plus an adjacent shared area of 2400mm W x 5400mm L min. dimensions, compliant with AS2890.6.
- Vertical clearance of 2500mm min. height over accessible carparking space and shared area with 2200mm min. height over vehicle aisle leading to accessible car space, compliant with AS2890.6.
- Accessible car bays to be located and connected via a continuous accessible path of travel, compliant with AS1428.1 to relevant lifts and/or building entry point to minimise travel distances (D3.2).

Assessment:

At this stage, based on the information provided by the client and design team there is advised to be:

- no intended separate allocation of car spaces (between approx. 417 total spaces proposed) within the basement car-park related to BCA building classification (i.e. 5, 6, 7a, 7b, 9b); and
- no separate staff and public standard car space areas designated (aside from the different operational hours of use i.e. between SRV shared spaces and public spaces.

As such the basement car-park has been assessed as Class 7a, with 6 x accessible car spaces from the approx. 417 total spaces proposed. The accessible provision is more than 1% which satisfies BCA Table D3.5 min. requirement for BCA Class 7a building area.

The access design review indicates the proposed accessible carparking provision for the building is capable of achieving compliance with the above BCA/Access Code requirements for people with disability.

During design development documentation will need to ensure:

- accessible car-parking provisions include required access features for people with disability including: 2.5M min. height over accessible carparking space, 2.2M* min. height on vehicular aisle, accessible carparking space (including shared area) min. dimensions with gradient/cross-fall, bollard, line-marking and pavement signage in compliance with AS2890.6, AS1428.1 to satisfy BCA/Access code Part D3.5;
- the connecting accessways between the accessible carparking spaces and relevant passenger lifts are compliant with AS1428.1;
- provision of turning bays (1540mm W x 2070mm L min. dimensions) in front of all passenger lifts clear of bollards. NB. 1500mm is min. clear width between obstructions required to make a 90 degree turn using wheelchair.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

- *Consideration for an increased 2.3M or 2.4M min. height within basement carpark aisles leading to accessible carparking spaces for higher vans/adapted vehicles is recommended as good practice and should be integrated at this stage if possible (Advisory recommendation).*

4.4 Building Entrances (BCA/Access Code Clause D3.1, 3.2, AS1428.1)

Requirement:

To meet the BCA/Access Code requirement for entry access into the building for people with disability, access is required through the principal pedestrian entrance to a building (or parts of a building when building has separate functions/use); and

- through not less than 50% of all pedestrian entrances (except those serving only areas exempted by D3.4); and
- a non-accessible pedestrian entrance must not be located more than 50m from an accessible pedestrian entrance (building more than 500 m2 total floor area),

except for pedestrian entrances serving only areas exempted by D3.4.

- The accessible entrances are to have clear circulation spaces on both sides of doorways that is level and 850mm min. clear width opening for the active leaf, compliant with AS1428.1.

Assessment:

The proposed design includes 3 x accessible main building entrances at ground level. These entrances connect to internal lift lobbies as follows:

- north–east public/boardwalk lift lobby (x 2 lifts) accessed from the Civic Plaza adjacent to the Waterfront Promenade and internal to building (to be available 24/7);
- south-east lift lobby (x 2 lifts) accessed from Bridge Road and internal to building (available during building operational hours);
- south-west public/boardwalk lift lobby (x 1 lift) accessed from Bridge Road and internal to building (to be available 24/7);

In addition, there are 2 x external public lifts at ground level, that function as accessible main entrances to the building (i.e. connect the ground level public domain to upper ground level public promenade) including:

- south-east public lift (x 1 lift) directly accessed from Bridge Road building (to be available 24/7);
- western public lift (x 1 lift) directly accessed from Western Promenade (to be available 24/7).

There are also 4x external feature stairs that function as main entrances to the building i.e. (connect the ground level public domain to the upper ground level public promenade) including:

- Northern Stepped Promenade (available 24/7);
- Eastern Stepped Promenade (available 24/7);
- Southern Stepped Promenade (available 24/7);
- Western Stepped Promenade (available 24/7).

The public/boardwalk promenade that surrounds the building at upper ground level is a critical through site-linkage (available 24/7) that also provides entry access to the various main retail entrances to the building located at upper ground level.

The design has suitably located the accessible main entrances/public lifts to the building either directly adjacent or in reasonable proximity to the non-accessible stair entry points (generally within 50M) which will provide flexibility and choice for people with different access needs to travel along a similar route, promoting universal design principles and inclusion.

The access design review indicates the proposed entry access into the building is capable of achieving compliance with the above BCA/Access Code requirements for people with disability.

During design development documentation will need to ensure:

- Entry access to the 4x public/boardwalk lift banks that are required to be available 24/7 will be developed through the façade at ground and upper ground level in compliance with AS1428.1.
- A comprehensive way-finding design and signage strategy for the site will be developed and include identification/directional signage to clearly designate alternative accessible paths of travel (ie. lifts)

from non-accessible paths of travel (ie. stairs). In particular, to the north-east entry/lift lobby from the public ferry wharf and Northern Stepped/Public Promenade at ground and upper ground levels to assist people with access needs easily locate the alternative accessible route within the building.

- All entry doors required to be accessible (including those used for staff) will be documented to confirm required access features for people with disability including: 850mm min. clear width opening for active leaf, level threshold, circulation space, luminance contrast, glazing/visual indicators where required and door hardware in compliance with AS1428.1 to satisfy BCA/Access code Part D3.2.
- Provision of continuous accessible path of travel (via passenger lift/s) to L2 Seafood School from ground level, compliant with AS1428.1.

This is achievable and will occur prior to Crown Certification stage.

*DDA/Advisory Note:

- *Consideration for provision of automatic sliding doors to main building entrances is recommended for universal design/ease of access (Advisory recommendation).*

4.5 Emergency Egress (Ref: BCA D2.17, BCA/Access Code D3.3, AS1428.1)

Requirement:

To meet BCA Part D2.17, required fire-isolated stair/ramp exits, (serving accessible areas) are required to include access features suitable for people with disability (i.e. ambulant and sensory) including:

- at least one continuous, consistent height handrail compliant with AS1428.1 Clause 12.
- To achieve a consistent height handrail (i.e. without vertical or raked sections), an off-set tread at the base of each stair flight or an increased mid-landing length to allow a one-tread handrail extension clear of egress route is needed.

Note: There is a gap in current access legislation with regards to independent accessible egress for people with disability (particularly for people with mobility issues that are unable to use fire stairs) as there is no mandatory requirement within the BCA or Premises Standards for accessible egress for people with disability to be in accordance with AS1428.1.
However, to meet DDA objectives, all users, including people with disability should be provided with a safe means of evacuation/egress from a premise to a place of safety.

Assessment:

At this stage, the design intent is for off-set stair tread configuration to be provided (or increased length mid landing size provided) at all fire-isolated stairs, to achieve a consistent height handrail.

During design development documentation will need to ensure:

- all fire-isolated egress stairs include detailed access features for people with disability including one continuous, consistent height handrail compliant with AS1428.1 Clause 12 to meet BCA Part D2.17 and luminance contrasting step nosing that is slip-resistant in compliance with AS1428.1 clause 11 (f) & (g) to satisfy BCA/Access Code Part D3.3.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Notes:*

- *Consideration of an accessible egress strategy with emergency evacuation plan and fire wardens to assist people with disability is recommended as a minimum starting point for the proposed development, particularly given it is a significant and new public/private landmark building. This is the responsibility of the client/operator, however the fire engineer and/or others specialized in planning for emergencies could be engaged to assist and/or prepare this.*

- *It is our understanding that the relevant standard that would guide preparation of this document is AS3745:2010 Planning for Emergencies in Facilities and any emergency management plan will also have to consider people with mobility and access issues.*
- *Consideration for providing places of refuge i.e. Safe fire-rated areas where people can wait for assisted evacuation (e.g. the spatial requirements for 1 x wheelchair space is at least 800mm W x 1300mm L min. dimensions outside of required egress path within fire-isolated stairs) and/or providing at least one emergency evacuation lift that can be used during an emergency by people with disability may also be part of the egress strategy for people with disability (Advisory recommendation).*

4.6 Paths of Travel – Accessible Circulation requirements (Ref: Clause D3.1, D3.3, D3.12, AS1428.1)

Requirement:

To meet the BCA/Access Code and provide access for people with disability to and within all common-use areas of the building required under Table D3.1, accessway/s are to be provided throughout all parts of a building required to accessible.

Accessways require the following min. circulation areas to comply with AS1428.1:

- 1000mm min. clear width path of travel (for linear direction), compliant with AS1428.1, with increased clear width areas required for doorway circulation, turning etc;
- All doors to common-use areas require 850mm min. clear width opening (generally 920mm min. door leaf) with provision of clear door circulation space on both sides, compliant with AS1428.1.
- Turning spaces (1500mm x 1500mm) compliant with AS1428.1 where users are required to turn through 90 degrees;
- Passing spaces (1800mm W x 2000mm L) compliant with AS1428.1 at 20m max. intervals where a direct line of sight is not available;
- Turning spaces (1540mm W x 2070mm L) compliant with AS1428.1 within 2m of the end of accessways (including corridors or the like); and at 20m max. intervals along an accessway for 180 degree turning.

The BCA/Access Code has door requirements to ensure access for people with disability into required accessible areas/rooms and along accessways that connect areas of a building required to accessible for people with disability (Table D3.1) including:

- All accessible doors require 850mm min. clear width opening (generally 920mm min. door leaf) with clear door circulation space provided on both sides, and level threshold transitions, compliant with AS1428.1.
- Note: for double leaf doors, at least one active leaf door is to achieve 850mm min. clear width opening.

Assessment:

The design is generally shown as a series of open plan areas with generous circulation space available that can achieve compliance with the above circulation requirements.

At this stage, doorways are not always indicated, however the circulation area and levels available indicate that doorways on accessway/s can be achieved to connect required accessible areas with further design development. Particular attention is required to provide an accessway between the following areas:

- Ground level, between south-east lift lobby/information area and any BOH “Staging” or Wholesale areas that include staff administration offices and associated common-use facilities;

- Mezzanine (L2) retail outdoor terraces, seating areas and lift lobbies from upper ground level (L1) in addition to connecting stair access.

During design development documentation will need to ensure:

- all accessways are detailed with required access features for people with disability including: continuous accessible paths of travel with suitable gradients and lengths between landings, suitable cross-fall and level transitions between slip resistant traversable surfaces, and circulation areas (including turning and passing bays) in compliance with AS1428.1 to satisfy BCA/Access Code Part D3.
- all doors required to be accessible will be documented to confirm required access features for people with disability including: 850mm min. clear width opening for active leaf, level threshold, circulation space, luminance contrast, glazing/visual indicators where required and door hardware/controls in compliance with AS1428.1 to satisfy BCA/Access Code Part D3.2.
- It is noted that any proposed roller shutters eg. at upper ground level around façade, have been assessed as paths of travel and are assumed to remain open at all times during operational hours (as they are not accessible doors under AS1428.1)

This is achievable and will occur prior to Crown Certification stage.

DDA/Advisory Notes:

- *Consider providing 30% min. luminance contrast between key surfaces to assist people with vision impairment in orientation/way-finding and improve safety e.g. between wall and floor finishes, between ramps/stairs and adjacent flooring, between handrails and walls, between door hardware and doors etc.*

4.7 Exemptions – Areas not required to be accessible (BCA/Access Code Clause D3.4)

Requirement:

The BCA/Access Code makes allowance for specific areas to be exempt from access for people with disability where:

- access is deemed inappropriate due to the purpose for which the area is used (e.g. plant rooms, service cupboards, heavy / toxic item storage, etc.) and/or;
- the area may pose a health and safety risk for people with disability.
- This also applies to paths of travel leading solely to the above exempt areas.

Note; Any areas seeking potential Part D3.4 exemptions to be identified and suitably documented as exemptions, subject to Certifier's approval.

Assessment:

At this stage, it is envisaged that plant rooms and restricted use service areas (i.e. cleaner's rooms, heavy equipment storage, operational freezers and chillers, sub-stations, service rooms/cupboards; loading dock, waste/crate management areas and the like can be supported as being exempt from access under Part D3.4.

During design development:

- Further clarification by the client and design team of Staff BOH "Staging" and BOH operational areas is needed to identify and document any areas seeking a part D3.4 exemption and/or a performance-based solution so that accessibility and BCA performance requirements will be satisfied.
- It is to be noted that BOH staff areas for common-use including staff administration, offices and associated amenities are required to be accessible in line with Table D3.1.

- For any specific instances where the nature of the job role/responsibilities/restrictions for office areas is proposed to be exempt from access eg. Dock Management Office, a formal statement from operator will be required as confirmation to support a Part D3.4 exemption.

This is achievable and will occur, prior to Crown Certification stage.

4.8 Passenger Lifts /Travelators (BCA/Access Code Ref: Clause E3.6, D3.3, AS1735.12, AS1428.4.1)

Requirement:

The BCA/Access Code has passenger lift requirements within accessible buildings to ensure access for people with disability that include:

- Every passenger lift is to comply with Table E3.6a and include accessible features as per Table E3.6b and AS1735.12;
- Passenger lift car dimensions to have 1100mm W x1400mm L min. dimensions for less than 12M travel distance (and/or for existing buildings, based on the Premises Standards Lift Concession)
- Passenger lift car dimensions to have 1400mm W x1600mm L min. dimensions for more than 12M travel distance
- Passenger lift doors to be at least 900mm min. clear width opening
- Travellators and escalators (not required accessible paths of travel) require TGSIs at top and base areas to meet AS1428.4.1

Assessment:

The proposed design includes numerous passenger lift banks spread throughout the building footprint to enable accessible paths of travel to and within required accessible areas. In addition to passenger lifts, there are goods lifts proposed, that at this stage, are intended for restricted operational use only.

The public/boardwalk passenger lifts (x4 banks) that function as building entry access points will need to be accessible 24/7 (see section 4.4).

The design indicates that the spatial provision for all assumed passenger lifts (exceeds min. requirements of 1400mm W x 1600mm D) and lift lobby areas on upper building levels, are capable of achieving compliance with the above BCA/Access Code requirements for people with disability.

It is noted that the centrally located public travelators that connect the basement up to ground and upper ground level are not considered accessible paths of travel (due to steep 1:8 gradient), however alternate passenger lift access is provided for people with access needs.

During design development documentation will need to ensure:

- Basement car-park lift lobbies make provision for designated clear circulation areas of at least 1540mm min. width in front of lift doors for required turning spaces (1540mm W x 2070mm L).
- All passenger lifts include detailed access features for people with disability including: lift car dimensions, door clearance, lift call and controls, fixtures and fittings and auditory and visual indicators in compliance with AS1735.12 to satisfy BCA/ Access code Part E3.
- All public travelators will require future detailing of TGSIs at each top and base landings under AS1428.4.1 and directional signage to the nearest alternate continuous accessible path of travel (i.e. passenger lifts) as part of future overall signage strategy.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

- *Consideration for design to locate travelator so that moving handrail section is suitably recessed (and not exposed) to/from transverse pedestrian traffic to improve safety and assist people with vision impairment entering/approaching e.g. by nib wall, balustrade.*
- *Consideration for extended pit-lids to travelators (that extend at least 1M past moving handrail) so that required TGSIs can be located on a single colour back-ground surface i.e. pit lid.*

4.9 Walkways (BCA/Access Code Ref: Clause D3.3)

Requirement:

The BCA/Access Code has walkway requirements to ensure access for people with disability that include:

- All walkways must comply with clause 10 of AS 1428.1
- Ensure walkways have 1:20 max. gradient, landings every 15m max. intervals, and landing dimensions in compliance with AS1428.1.

Assessment:

At this stage, the proposed design indicates that walkways associated with the building are capable of achieving compliance with the above BCA/Access Code access requirements for people with disability.

During design development:

- All walkways will need to be documented to confirm detailed access features including: suitable gradients and lengths between level landings, minimal cross-fall and level transitions between slip resistant traversable surfaces, and circulation areas in compliance with AS1428.1.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

Consider providing the column on 1:20 walkway at ground level external walkway to South East entry lobby, with 30% min. luminance contrast to background floor surface for improved detectability (DDA/Advisory)

4.10 Ramps (BCA/Access Code Ref: Clause D3.3, 3.11)

Requirement:

The BCA/Access Code has ramp requirements to ensure access for people with disability that include:

- All ramps (except in Part D3.4 exempt areas) are to be compliant with clause 10 of AS 1428.1
- A series of connected ramps must not have a combined vertical rise of more than 3.6M
- A landing for a step ramp must not overlap a landing for another step ramp or ramp

To satisfy AS1428.1 all ramps require:

- 1:14 max. gradient, landings at 9m max. intervals, and landing dimensions in compliance with AS1428.1.
- Ramps are to be recessed from the site boundary (900mm) and from other paths of travel (400mm) to allow handrail extensions to not encroach over the traverse path of travel, compliant with AS1428.1.

- Ensure ramp dimensions allow for min. required access and/or egress path width requirements with suitably sized landings in addition to space or required handrails on both sides, compliant with AS1428.1.

Assessment:

At this stage, the proposed design indicates that ramps associated with accessible areas of the building are capable of achieving compliance with the above BCA/Access Code access requirements for people with disability.

During design development, ongoing review will be needed of:

- All ramps required to be accessible will need to be documented to confirm required access features for people with disability including: max. gradients and lengths between level landings, circulation space, continuous handrails and kerbrails on both sides TGSIs in compliance with AS1428.1 to satisfy BCA/Access Code Part D3.3.

This is achievable and will occur prior to Crown Certification stage.

DDA/Advisory Note:

- *It is noted that some BOH ramps within ground floor operational areas may seek exemptions from access (under Part D3.4). However, maximising access provisions as far as possible to meet AS1428.1 is recommended for improved safety by design (Advisory recommendation). The BOH ramps for goods movement in the travellator void (between basement to lower ground level) is understood to only be able to achieve 1:8 max. gradient, which is permitted within exempt areas such as this under BCA Part D3.4.*

4.11 Stairs (BCA/Access Code Ref: Clause D3.3)

Requirement:

The BCA/Access Code has stair requirements to ensure access for people with disability (ambulant and sensory) that include:

- All communication (and non-fire-isolated) stairways must comply with Clause 11 of AS 1428.1.
- Stairs are to be recessed from the site boundary (900mm) and from other paths of travel (400mm) to allow for handrail extensions not to encroach over the traverse path of travel, compliant with AS1428.1.
- Stairs require provision of an off-set stair tread at base of stair flights to allow continuous consistent height handrail along the full stair flight and around landings (where practicable), compliant with AS1428.1.
- Stair dimensions to allow for min. required access and/or egress path width requirements and suitable sized landings in addition to space for continuous handrails on both sides, compliant with AS1428.1.

Assessment:

The proposed design includes external and internal stairs that will be used for communication purposes between levels and will also be used as non-fire isolated egress stairs.

Of particular note are the 4x main external stairs: Northern; Eastern; Southern; Western Stepped Promenades which by their unique design include areas that will function as stairs for movement between levels adjacent to proposed seating i.e. bleacher style seats with future ‘plug-in’ fit-out elements such as seating/tables etc.

It is noted that Ergonomic Design Assessment on the external Stepped Promenades, as well as for other matters relating to stairway design has been provided by an Ergonomic Consultant (Dohrmann Consulting).

The assessment includes the Northern and Southern Stepped Promenades (that have irregular dimensions/configuration) and are not defined stairs for BCA purposes however will be relied upon for egress and access purposes.

At this stage, various **ergonomic performance solutions** have been identified as being required for stair design where there are potential departures from the BCA Deemed to Satisfy provisions. These will be developed further the design progresses in line with the the Group DLA BCA report Rev 6 dated 11.09.2019 requirements and the Dohrmann Consulting Ergonomic Assessment Report Rev1, dated 09.09.2019.

In addition, there are various internal communication stairs including:

- Level 0, Ground, stairs in south-east lift entry lobby (adjacent to 1:14 ramp)
- Upper ground level (L1), various internal stairs that connect to outdoor seating and retail terraces at Mezzanine level (L2)
- Level 0, Ground, stairs beside tiered seating within Auction Hall/Buyers Room that connect to Upper ground level (L1).

At this stage, the proposed design indicates that the stairs associated with accessible areas of the building are capable of achieving compliance with the above BCA/Access Code access requirements for people with disability.

This will be achieved through a combination of compliance with the deemed to satisfy (DTS) provisions and the Performance Requirements of the BCA, including **access performance solutions** that have been identified as being required for the following items:

- Eastern and Western Stepped Promenade, central stair and side stair handrails (Clause D3.3) – provision of a central dual handrail in lieu of handrails on both sides, and reduced handrail extension on mid landings where breaks occur for side access to bleachers to maintain required access/egress clearances; and
- South East Entry Lobby stairs, ground level (Clause D3.3) – reduced handrail extension at base of central dual handrails between stair and ramp to maintain required access circulation/clearances;
- Auction Hall/Buyers Room, ground level (Clause D3.3) – discontinuous handrails and/or handrail design that departs for AS1428.1 to facilitate side access to the fixed tiered seating areas.

During design development:

- All communication stairs will need to be documented to confirm required access features for people with disability including: continuous handrails on both sides, closed risers with appropriate geometry, luminance contrasting step nosing that is slip-resistant and TGSIs in compliance with AS1428.1 and AS1428.4.1 to satisfy BCA/ Access Code Part D3.3;
- Ongoing advice from the project ergonomic consultant will be required for the external Stepped Promenade and for where ergonomic performance-based solutions are to be developed for various departures from BCA requirements.
- Review/liaison between the BCA consultant, DDA Access consultant, Ergonomic Consultant and design team will be required for all performance solutions relating to stairway design, in particular for:
    - Where continuous handrails on both sides of stairs are not proposed (eg. if design intent is to facilitate side access to the intermediate level bleacher seating areas) and/or at stair ends (when central handrail proposed);
    - To improve the safety of the bleacher seating (especially at top landings, upper ground level) for people with vision impairment when located adjacent to the accessible path of travel; and to improve the safety on stair flights where stairs extend beyond the main stair width on intermediate landings and/or where they interface with bleacher seating areas;
    - Where single steps with access features are proposed at the base of Stepped Promenades;
    - Various Plug in furniture types for Bleacher seating areas adjacent to stairs at Northern, Eastern and Western Stepped Promenades.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

- *Consideration for including step ramped access at the single step/plinth landings on north, East, West stairs in the event they are used for informal performances for access/equity/dignity of all potential users or if the single step remains consideration for an additional step to increase detection (DDA/Advisory)*

4.12 Accessible and Ambulant Sanitary Facilities (BCA/Access Code Clause F2.4)

Requirement:

The BCA/Access Code has requirements for the provision of accessible and ambulant sanitary facilities to ensure access for people with disability within areas of a building required to accessible (Table D3.1) including:

For Class 5, 6, 7a and 9b buildings:

- At least 1 x accessible unisex toilet is required at each bank of toilets (where provided) on each storey, compliant with Table F2.4a and AS1428.1. If more than 1 toilet bank is provided on each level, an accessible toilet is required at 50% min. of toilet banks, however when there are separate uses/functions provided then at least 1 unisex accessible to be provided at each bank for each area; and
- For Class 9b: Accessible unisex showers are to be provided in accordance with Table F2.4(b). If common-use change facilities provided (i.e. both toilets and showers) a separate combined accessible WC/shower adjacent to male and female change rooms is required, compliant with AS1428.1; and
- At each bank of toilets where there are one or more toilets in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for a person with an ambulant disability in accordance with AS 1428.1 must be provided for use by males and females; and
- An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels; and
- The circulation spaces, fixtures and fittings of all accessible sanitary facilities provided in accordance with Table F2.4(a) and Table F2.4(b) must comply with the requirements of AS 1428.1
    - Generally, an accessible unisex toilet requires 2350mm W x 2350mm L or 2000mm W x 2750mm L based on Fig 43 and 50 to ensure required 1900mm W x 2300mm L min. circulation space around pan with wash-basin (430mm min. depth projection) to sit outside this area.
- An accessible unisex sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only; and
- Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right hand transfer pans to be equitably distributed; and
- An accessible unisex sanitary compartment or an accessible shower need not be provided on a storey or level not required by D3.3(f) to be provided with a passenger lift or ramp complying with AS 1428.1.

Assessment:

The proposed design indicates provision of sanitary facilities in required accessible areas as follows:

- Level B2 Basement: 1 x bank male/female End of Trip with accessible WC (LH) and shower facility (north-east corner); 1 x bank male/ female with accessible WC (RH) (near sewer treatment)

- Level 0, Ground: 1 x bank male/female with accessible WC (LH) (adjacent Buyers Room); 1 x bank male/female with accessible WC (RH) (adjacent BOH Wholesale Data Entry Room);
- Upper ground level (L1): 1 x bank male/female with accessible WC (RH) (NW Retail); 1 x bank male/female with accessible WC (LH) (SE Retail);
- Mezzanine (L2): 1 x bank male/female with accessible WC (RH) (Seafood School, near lifts), 1 x bank male/female with accessible WC (LH) (SFM Offices, near lifts)
- In addition, there is an Accessible Adult Change Facility (see section 4.13 below) and Parents Room (with sanitary facility) proposed at upper ground level (grid G/16)

At this stage, there are unisex accessible and ambulant toilets indicated at each toilet bank throughout building) with exception of where Accessible Adult Change Facility and Parenting Room are located, as required.

The current layouts indicated for the unisex accessible toilets demonstrate an equitable balance of left hand (LH) and right hand (RH) transfer pans on each storey and throughout the building is provided, as required.

The design indicates that the required accessible and ambulant sanitary facilities associated with accessible areas of the building are capable of achieving compliance with the above BCA/Access Code access requirements for people with disability.

During design development, documentation will need to ensure:

- the detailed design and fit-out of the required accessible toilets and showers including circulation areas between fixtures and fixtures/fittings will be documented to confirm required access features for people with disability in compliance with AS1428.1 to satisfy BCA/Access Code Part F2.4
- the detailed design and fit-out of the required ambulant toilets including circulation areas between fixtures and fixtures/fittings will be documented to confirm required access features for people with disability in compliance with AS1428.1 to satisfy BCA/Access Code Part F2.4

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

- *Consideration for providing turning bay (1540 W x 2070 L min. dimensions) in front of the lockers within End of Trip facility, basement level (DDA/Advisory)*
- *Consideration for providing a unisex ambulant toilet, compliant with AS1428.1 within the Parents Room facility, upper ground level (DDA/Advisory)*

4.13 Accessible Adult Change Facilities (BCA 2019 – Clause F2.9 and Specification F2.9)

Requirement:

BCA 2019 has requirements for at least 1 x unisex accessible adult change facility for people with disability, within an accessible part of a building that is a:

- Class 6 shopping centre with a design occupancy of not less than 3,500 people, calculated on BCA floor areas and containing a minimum of 2 sole occupancy units and;
- Class 9b sports venue or the like with a design occupancy of 35,000 spectators or contains a swimming pool that has a perimeter of not less than 70M and that is required by Table D3.1 to be accessible

The unisex accessible adult change facility:

- cannot be combined with another sanitary compartment and must be accessed from a common-use unisex area;

- must be provided in addition to (not instead of) standard unisex accessible toilets due to different intended users and different design criteria. *Note: standard unisex accessible toilets (compliant with AS1428.1) are designed for independent use by people with disability*
- is to be designed in accordance with Specification F2.9 with all required fixtures and fittings located within the same room. Note: the facility will require an approximate 12M2 internal floor area and a minimum ceiling height of 2.4M FFL (with suitable re-enforcement for ceiling hoist)

Note: An accessible adult change facility is designed for people with profound/complex disabilities that require toileting assistance. It is larger and different to an accessible toilet, as the facility includes a ceiling hoist track system (2.4M min. ceiling height), centrally located peninsula style toilet, automated adult changing table, automated sliding door, wash-basin with additional fixtures and fittings, increased circulation area etc.

Assessment:

The proposed design has made provision for an accessible adult change facility as required under BCA Part F2.9 on the Upper ground level, adjacent to the Parents Room.

At this stage, the design indicates that this sanitary facility is capable of achieving compliance with the above BCA/Access Code access requirements for people with disability.

During design development documentation will need to ensure:

- the detailed design and fit-out of the required adult accessible change facility including the circulation areas between fixtures and fixtures/fittings includes all required access features for people with disability in compliance with Specification F2.9, including provision of an automated sliding door.

This is achievable and will occur prior to Crown Certification stage.

**DDA/Advisory Note:*

- *While the BCA 2019 Guide Notes that: Changing Places is not in any way affiliated with, or endorsed by, the ABCB, much of the information included within BCA Specification F2.9 for Accessible Adult Change Facilities is based on a separate document: Changing Places Information Guide & Technical Standard (June 2017 edition – v3).*
- *Should the client/operator wish for the Accessible Adult Change Facility to be able to be registered on the Changing Places website online listing - the design and layout of the Accessible Adult Change Facility would also also need comply with the design specifications outlined in the Changing Places Information Kit, dated June 2017 edition – v3 with formal accreditation of the "Changing Place" facility by a registered Changing Places assessor. This is achievable and if desired can be addressed during design development stage.*

4.14 Wheelchair Seating Spaces (BCA/Access Code Table D3.1, Clause D3.9 and Table D3.9)

Requirement:

In addition to providing access to and within all areas, normally used by the occupants (Table D3.1) the BCA/Access Code requires the provision of wheelchair seating/accessible spaces to ensure access for people with disability where fixed seating is provided in Class 9b assembly buildings, as follows:

- For up to 150 fixed seats in a room or space: at least 3 wheelchair seating spaces required (distributed as 1 x single space and 1 x group of 2 spaces)

- For 151 – 800 fixed seats in a room or space: at least 3 wheelchair seating spaces plus 1 additional space for each 50 seats or part thereof in excess of 150 seats required (distributed as no less than 1 x single space and 1 x group of 2 spaces and not more than 5 spaces in any other group)

Assessment:

The proposed design indicates the Buyers Room/Auction Hall (between ground and upper ground level) has fixed tiered seating. The proposed design also includes Public exhibition spaces (base-build open plan areas) at ground level and north-east and south-east corners.

However, as these areas have less than 10% of total ground floor area, under the BCA they are not classified as Class 9b and are currently assessed under BCA as Class 7b.

Access to and within all areas normally used by the occupants is required for Class 7b areas, in compliance with AS1428.1. It is understood that the use of the Buyers Room/Auction Hall space is intended primarily for buyers however it will also be made available/programmed for public use.

Given the proposed mixed-use, the provision of wheelchair seating spaces in accordance with Table D3.9 is strongly recommended for the Buyers Room/Auction Hall under the DDA.

At this stage, the design is capable of achieving compliance with the above BCA/Access Code access requirements and DDA recommendations for people with disability.

During design development:

- Confirmation of total number of fixed seats in the Buyer's Room/Auction Hall will be required to determine the minimum number of wheelchair seating spaces that can be accommodated in line with AS1428.1 Cl. 18 spatial requirements. At this stage, 150 seats are proposed and a minimum of 3 wheelchairs seating spaces under Table D3.9 are recommended with location options at both the front and rear of the room (DDA/Advisory recommendation).

- All communication stairs to be documented to confirm required access features for people with disability including: handrails on both sides, closed risers with appropriate geometry, luminance contrasting step nosing that is slip-resistant and TGSIs in compliance with AS1428.1 to satisfy BCA/ Access Code Part D3.3.

- Ongoing review will be required of access features/details on Buyers Room/Auction Hall stairs/stepped aisles, in particular:
    - Subject to further design review it is anticipated that an **access performance solution** approach will be required to address (BCA Clause D3.3) – for discontinuous handrails and/or stair handrail design that departs for AS1428.1 to facilitate side access to the fixed tiered seating area.
    - To improve the safety of the fixed tiered seating (especially at top landing, upper ground level) for people with vision impairment when located adjacent to the accessible path of travel and for safe movement on the stair flights where they interface with tiered seating areas

This is achievable and will occur prior to Crown Certification stage.

4.15 Signage (BCA/Access Code Clause D3.6, Specification D3.6)

Requirement:

The BCA/Access Code has requirements for the provision of accessible signage for specific facilities, features and services within buildings to ensure access for people with disability including:

- Braille and tactile signage complying with Specification D3.6 and incorporating the international symbol of access, or deafness as appropriate, to identify each:
    - sanitary facility; and
    - space with a hearing augmentation system; and
    - door required by E4.5 to be provided with an exit sign and state “Exit” and “Level” and either:

      (aa) the floor level number; or

      (bb) a floor level descriptor; or

      (cc) a combination of (aa) and (bb)
- There are additional detailed BCA/Access Code signage requirements that outline how to identify and differentiate between specific accessible features and/or types of facilities as well as directional signage requirements to alternate entrances, sanitary facilities, lifts etc. if/when not accessible.
- For buildings with a required Accessible Adult Change Facility, directional signage complying with Specification D3.6 is required at each bank of sanitary facilities (male, female and unisex accessible), other than the one where the Accessible Adult Change Facility, to direct a person to the location of the nearest Accessible Adult Change Facility.

Assessment:

At this early stage, the design does not include a signage strategy with provisions for accessible facilities. This will need to be documented during design development stage to satisfy the above access requirements.

This is achievable and will occur prior to Crown Certification stage.

4.16 Hearing Augmentation (BCA/Access Code Clause D3.7)

Requirement:

The BCA/Access Code has requirements for the provision of hearing augmentation systems for specific rooms and areas within buildings (where an inbuilt amplification system, other than one used only for emergency warning is installed to ensure access for people with disability including:

- in a room in a Class 9b building; or
- in an auditorium, conference room, meeting room or room for judicatory purposes; or
- at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider.
- The hearing augmentation system type and min. coverage area is to be in compliance with Part D3.7
- Any screen or scoreboard associated with a Class 9B building and capable of displaying public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.

Assessment:

At this stage, based on the proposed design, the locations where hearing augmentation may be required within this project are any Class 9b areas or rooms (such as public exhibition spaces), office Meeting/Board Rooms or Sydney Seafood School/teaching spaces and Auction Hall, Buyers room.

During design development:

- Confirmation of the extent of any in-built amplification to be provided throughout the project with details of any proposed associated hearing augmentation system details to be provided for review.
- Confirmation of any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements with details of capability of supplementing any public address system
- Any areas requiring hearing augmentation will need to be developed and documented to satisfy Part D3.7 access requirements.

This is achievable and will occur prior to Crown Certification stage.

DDA/Advisory Notes:

- *Consider using absorbent materials/finishes to improve general acoustics and assist in reducing reverberation and use of hearing augmentation systems e.g. using acoustic tiles, furniture, carpet, curtains, bulletin/felt boards etc to minimise hard surfaces that reflect sound.*
- *Provide appropriate, even lighting with minimal glare, particularly at reception/information counters to assist people with hearing impairment lip-read/communicate with staff e.g. suitable luminaire direction and/or use of diffuser, screening to windows/glazing (tinting, blinds, louvres).*
- *Consideration providing computer-aided real time captioning (CART) systems, and/or access to captioning on television sets/video display as required in addition to hearing loops systems at public meeting areas to enable deaf participants to effectively communicate.*

5.0 ACCESS PERFORMANCE BASED SOLUTION SUMMARY

The accessibility assessment of the documentation provided has identified that the following building areas may require assessment against the relevant BCA performance requirements.

Item	DTS Non-Compliance	Potential Justification	BCA Clause	BCA Performance Required
1	Refer to Section 4.11.1 **Eastern and Western Promenade Stair Handrails – absence of continuous handrails on both sides of stairs**	Central dual handrail in lieu of handrails both sides can be supported given the need for side access into bleacher seating from stairs – under ongoing design review for the full extent of additional access features to be provided	BCA D3.3 AS1428.1 Cl 11.2	DP1, DP2
2	Refer to Section 4.11.1 **Eastern and Western Promenade Stair Handrails – absence of 300mm horizontal extension**	Provision of at least one tread width extension at same angle of stair flight will ensure functional support/hand-hold during last/first step on stair flight.	BCA D3.3 AS1428.1 Cl 11.2	DP1, DP2
3	Refer to Section 4.11.8 **South East Entry Lobby stairs, ground Stair Handrails - absence of 300mm horizontal extension**	Provision of at least one tread width extension at same angle of stair flight will ensure functional support/hand-hold during last/first step on stair flight.	BCA D3.3 AS1428.1 Cl 11.2	DP1, DP2
4	Refer to Section 4.11.10 **Auction Hall/Buyers Room - Potential absence of continuous handrails on both sides of stairs**	Further access and ergonomic review required when design developed/documented to determine if a feasible justification is possible.	BCA D3.3 AS1428.1 Cl 11.2	DP1, DP2

NOTE: Ongoing consultation and review between design team, BCA, Ergonomic and Access Consultant is needed to ensure that adequate provisions are made for people with disability to satisfy BCA performance requirements, particularly in relation to stairway design relating to the Stepped Promenade/Stairs and the Auction Hall/Buyers Room.

Appendix A:
Compliance Design Guidance Criteria
(for information only)

Building Element - Compliance Requirement/Diagram
1. Accessible Car-Parking and Transport - Reference: AS2890.6 and 1428.1 a) Accessible car bays (angle) to have 2400mm min. W x 5400mm min. L adjacent to shared zone with 2400mm min. W x 5400mm min. L with bollard installed at start of shared zone (refer AS2890.6 fig. 2.2, 2.3). b) Ensure accessible car space and adjacent shared zone are at the same grade and no steeper than 1:40 (1:33 for external bitumen surfaces). c) Accessible car bays (parallel) to have 3200mm min. W x 7800mm min. L adjacent to shared zone with 1600mm min. W x 7800mm min. L (refer AS2890.6 fig. 2.4). d) Accessible car bays to be located adjacent to passenger lifts or building main entry points. e) All accessible car parking spaces (and shared zones) must have vertical clearance of not less than 2500mm, (refer AS2890.6 fig. 2.7). f) The vertical clearance leading to the accessible car bays may not be less than 2200mm. g) Provide appropriate accessible car parking (wheelchair logo) signage on pavement and vertical signage to designate the area for people with disabilities. Sign to include “international access symbol ONLY”, compliant with AS2890.6 and AS1428.1. h) Provide an accessible drop-off area for private vehicles, uber/taxis, community buses with kerb ramp access to the footpath (refer AS2890.6.with parallel car-bay dimensions) Note: it is recommended kerb ramp be at rear of accessible drop off area for rear loading vehicles
2. Kerb Ramp – Reference AS1428.1 Cl. 10.7 **a)** 1:8 max. gradient, 190mm max. height, 1000mm min. width and 1520mm max. length. Note: kerb ramps with gradients less steep than 1:8.5 generally detectable by people with vision impairment b) Ensure base and top of kerb-ramp to be perpendicular to path of travel across road c) 1500mm min. clear length landing when turn required, 1200mm min. length landing without any turn
3. Continuous Accessible Paths of Travel – reference AS1428.1 Cl. 6 a) Required to and within all areas normally used by occupants to meet AS1428.1 b) Provide 1000mm min. clear width paths of travel (linear direction only) between face of finished wall surface/skirting/fixtures/large furniture items – Note more clear width required for doorway circulation areas, turning and passing spaces etc. c) Corridors less than 1500mm wide that turn between 60-90 degrees need increased (1500mm) width at turn with 45degree splay on internal side d) Provide turning spaces (1540mm W x 2070mm L) at 20m intervals, within 2m of corridor ends/rooms to enable a wheelchair user to turn 180 degrees e) Provide wheelchair passing bays (1800mm W x 2000 L) at 20m max intervals when a direct line of sight not available and outside passenger lifts f) Ensure that any overhead hazards in areas with less than 2m min. vertical clearance (e.g. angled wall/columns or exposed underside of any stairs/escalators) will have access impeded by suitable physical barrier or have handrail and kerb rail or warning TGSI’s installed, compliant with AS1428.4.1 fig. 2.6.

Building Element - Compliance Requirement/Diagram
4. Floor Surfaces and Slip Resistance a) All surface finishes to be flush to provide accessible path of travel with 3mm max. vertical or 5mm bevelled edge construction tolerance (refer to Clause 7 for details) b) Ensure all ramps, stair treads/nosings and stair landings on required egress paths are slip resistant in accordance with BCA Table D2.14 (tested to AS4586:2013/HB198, Table 3A) c) Ensure slip resistance of flooring systems used within areas required to be accessible (including ramps, stairs, landings) are traversable by a wheelchair or walking frame, tested in accordance with wet pendulum test method of AS4586:2013/HB198. This is needed to satisfy AS1428.1 Clause 7.1. Test certificates required at OC Stage. d) For any carpet or similar soft flexible flooring surface be used, ensure pile height is no more than 11mm with 4mm max backing surface e) Drainage grates on accessible path of travel to have openings no more than 13mm wide x 150mm long (heel-guard type preferred), with greater dimension transverse to main direction of travel to assist wheelchair users.
5. Walkways – reference AS1428.1 Cl 10.1, 10.2 a) Walkways to have gradient no steeper than 1:20 with landings at 15m max. intervals b) If walkway gradient no steeper than 1:33, no landings are required Note: max. walkway lengths between landings to be interpolated between 1:20 – 1:33 gradient c) Provide edge protection to walkways when not bound by wall e.g. compliant kerbing/handrail/raised upturn d) 1000mm min. clear width required (when linear/no turning required) e) 1500mm min. clear width if curved with min. inside curve radius compliant with AS1428.1 fig. 20. f) All turning areas to be on level landings (no steeper than 1:40 gradient)
6. Threshold Ramp – Reference: AS1428.1 Cl. 10.5 a) Ensure threshold ramps have 1:8 max. gradient, 35mm max. height and 280mm max. length b) Requires level landing at base of threshold ramp c) 20mm max. distance from door face (so door 300mm max. reach from landing in front of threshold ramp) d) Ramp sides to be enclosed by walls (450mm min. height) or sides to be tapered/splayed at 45 min. degrees e) Note: BCA D2.15 generally only permits at external doors to road or open space, PCA clarification needed.
7. Step Ramp – Reference: AS1428.1 Cl. 10.6 a) Can be used when height variation between FFLs is greater than 35mm and no more than 190mm. b) Ensure step ramps have 1:10 max. gradient, 190mm max. height and 1900mm max. length. c) Requires level landings at top and base and at doorways for door circulation compliant with AS1428.1 fig 31. d) Requires suitable barriers on ramp sides i.e. 450mm min. height wall or balustrade/ kerbing, or splayed edge if transverse pedestrian traffic. e) Consecutive step ramps (i.e. when landings between step ramps/ ramps overlap) cannot be used, compliant with DDA Access Code D3.11(b).

Building Element - Compliance Requirement/Diagram
8. Access Ramp – Reference: AS1428.1 Cl. 10.1, 10.3 a) Total vertical rise of ramp system cannot exceed 3.6m b) Ramps to be set back 900mm min. from site boundary, 400mm min. from internal corridor c) 1:14 max. gradient with landings at top and base and 9 m. max intervals, with consistent gradient throughout ramp. d) 1000mm min. clear width required between handrails and kerbing/rails (when linear/no turning required) e) 1500mm min. clear width for curved ramps with min. inside curve radius compliant with AS1428.1 fig. 20. f) All turning areas to be on level landings (no steeper than 1:40 gradient) g) Landing min. sizes (clear of handrails and kerbing/rails): ○ 1200mm length with no change in direction ○ 1500mm width x 1500mm length (internal splay), 90 degree turn ○ 1540mm width x 2070mm length for 180 degree turn h) Continuous handrails required both sides of ramp with extensions and terminations (refer handrails section) i) Tactile ground surface indicators (TGSI's) required (refer TGSI section) j) Kerbing to be between 65-75mm height above FFL or 150mm min. height above FFL. NB. The top of kerbing must not be within 75-150mm range above FFL to minimise risk of wheelchair footplate entrapment. **k)** Kerb to be suitably located in relation to handrail (and vertical supports if provided) i.e. internal face of kerb in line with internal face of handrail or up to 100mm max. off-set inside ramp, compliant with AS1428.1 Fig 19.
9. Passenger Lifts –Reference BCA Table E3.6, AS1735.12 a) Lift types to meet options provided within Table E3.6a b) 1400mm W x 1600mm L min. dimensions (travel distance more than 12m); 1100mm W x 1400mm L min. dimensions (travel distance less than 12m) c) Lift car fit-out to meet Table E3.6B and AS1735.12 including: d) centre line of standard lift call buttons in lift lobbies located at height of 900-1200mm and at least 500mm distance from an internal corner to be accessible to people using wheelchairs e) internal lift control panel with centre line of control buttons located at a height no less than 700mm and no greater than 1250mm above FFL, set back from corner to meet AS1735.12 f) floor level buttons shall possess Braille, raised tactile symbols and numbers, visual and auditory indicators g) Note: horizontal lift control panels are preferred over vertical panels for ease of reach as they generally can be positioned with control buttons within 900-1100mm FFL which is the preferred range for most wheelchair users (advisory/DDA). h) Passenger lifts include 2 x lift control panels when the width/length dimension is less than 1400mm. i) To include an internal 600mm min. length handrail installed at a height 850-950mm. The handrail ends shall be no more than 500mm away from any operating device or button, compliant with AS1735.12. j) To include emergency hands free communication, including a button to alert call centre of a problem and a signal light to confirm that call has been received. k) Lifts serving more than 2 levels to provide automatic audible information within lift car to identify each level l) Lifts serving more than 2 levels to provide appropriate visual and audible arrival signals of lift car in lobbies. m) Lifts serving more than 2 levels provides appropriate audible range and frequency, (between 20-80dbA at maximum frequency of 1500 Hz), compliant with DDA Access Code Table E3.6b. n) The lighting in all enclosed lift cars must be at least 100 lux o) All visible information to provide 30% min. luminance contrast to background surface.

Building Element - Compliance Requirement/Diagram

10. Stairs – Reference: AS1428.1 Cl. 11.1

a) Stairs to be set back 900mm min. from site boundary and sufficient space for required handrail extensions to be set-back from internal corridors (generally 650mm min. at base, 400mm min. at top)
b) Provide off-set tread at base of stair flights for continuous handrail provision at consistent height, refer fig. 28a
c) Stairs to have closed/opaque risers
d) Stair treads and nosing to not overhang riser face, 25mm max. angled riser permitted
e) Nosing profiles to have:
    - Sharp transition
    - Be rounded up to 5mm radius or
    - Be chamfered up to 5mm x 5mm
f) Provide slip-resistant step nosing strips on all stair treads as follows:
    - Step nosing strips to be across full width of stair, between 50mm – 75mm wide, in a continuous colour solid strip with 30% luminance contrast to background surface.
    - Step nosing strips to be located on edge of tread (15mm max. setback if applied) and not extend onto risers more than 10mm. (if exposed)
g) Continuous handrails required both sides of all stairs with extensions and terminations (see handrail section)
h) Slip-resistant step nosing strips on all stair treads are required as follows:
    - Step nosing strips to be across full width of stair, between 50mm – 75mm wide, in a continuous colour solid strip with 30% luminance contrast to background surface.
    - Step nosing strips to be located on edge of tread (15mm max. setback if applied) and not extend onto risers more than 10mm. (if exposed)

11. Handrails – Provision Reference: AS1428.1 Cl 11.2

a) Handrails on both sides to be continuous throughout stair flights/ramps and landings (where practicable)
b) Handrails to be at consistent height (no vertical sections) and follow line of nosings or ramp surface FFL
c) Handrail at top of stair to extend 300mm (horizontal) past the step tread then turn 180 degrees downwards or return to post/wall
d) Handrail at base of stair to extend one tread width (at same angle) plus 300mm (horizontal) from last riser, then turn 180 degrees downwards or return to post/wall

Handrail Design – Reference: AS1428.1 Cl. 12

e) Handrails to be 50mm min. away from adjacent side wall (knuckle clearance)
f) Provide circular/elliptical handrails 30-50mm diameter, with 270 min. degree clear arc around top of handrail (extending for 600mm min. height) for clear use/passage of hand
g) Top of handrails to be at consistent height between 865mm – 1000mm height above step nosing or landing or ramp surface FFL – if a balustrade is required as safety barrier, provide separate balustrade and handrails
h) Inner handrail always needs to be continuous
i) Where domed buttons are used on handrails as tactile warning, ensure domed button (4 - 5 mm height and 10 - 12 mm diameter) provided on top of handrail, 150 ±10 mm from handrail end, compliant with AS1428.4.1 (and AS1428.2 guidance diagram)

Building Element - Compliance Requirement/Diagram
12. Tactile Ground Surface Indicators (TGSIs) – Ref AS1428.4.1 a) Ensure consistent use/application in compliance with AS1428.4.1 for stairs, ramps, escalators/travelators and potential hazards e.g. on-grade pedestrian and vehicular routes, overhead vertical clearance less than 2M b) TGSI's required at top and base landings. Not required on mid landings if handrails are continuous on both sides and landing less than 3m length c) To be slip-resistant and have the following min. luminance contrast values against back ground surface: o Integrated TGSI's (i.e. tiles) require 30% min. luminance contrast o Discrete TGSI's (i.e. buttons) require 45% min. luminance contrast o Composite TGSI's with 2 materials/colours requires 60% min. luminance contrast d) Warning TGSI's to extend across full width path of travel and commence 300mm +/- 10mm from edge of stair risers, transition points on ramps e) Warning TGSI's to have between 600-800mm depth when used at open areas, or at landings (>3m length) and/or when handrail is discontinuous, f) Warning TGSI's to have between 300-400mm depth when used at enclosed landings (<3m) or when external handrail is discontinuous.
13. Doorways – Reference AS1428.1 Clause 13 a) All doors on accessible paths of travel to have single leaf with 850mm min. clear width opening (generally 920mm door leaf) – includes active leaf of double doors b) Provide circulation space on either side of doors (no steeper than 1:40 gradient/crossfall) to meet fig 31/32 e.g. hinged doors - latch-side clearance of 510mm min. inward opening, 530mm min. outward opening c) Provide 1450mm min. length clearance in front of doors and between door swings in airlocks/vestibules on accessible path of travel d) Provide 30% min. luminance contrast between doorways and adjacent surface/s. The contrasting area to be 50mm min. width. **Door Hardware/Access Controls** e) Provide D handles and/or lever Concern/Action Required handles on hinged doors with returns, to assist people with dexterity impairment, installed between 900-1100mm above FFL with 35-45mm grip clearance f) Door operational forces to be lightweight (20N max.) suitable for people with disability. Note: Consideration should be made of door size, location, seals, correct hanging, air pressure, door closer – CAM actuator etc. g) Operative parts of intercom and/or door control/security swipe (where touch controls) to be installed between 900mm – 1250mm FFL on latch side of door and 500mm min. distance from internal corner or obstruction h) Controls to be located above a level landing surface (no steeper than 1:40) for functional and safe use i) The control buttons for power operated doors to be raised, 25mm min. diameter, installed in accessible location i.e. between 1-2m from hinged door leaf in open position, compliant with AS1428.1.
14. Visual Indicators – AS1428.1 Cl. 6.6 a) All fully glazed doors and glazing with no horizontal element capable of being mistaken for a doorway or opening, to be clearly marked with 75mm min. wide, solid, non-transparent, contrasting line across full width. b) The lower edge of line to be between 900mm – 1000mm FFL with 30% luminance contrast against floor or background surface within 2m of glazing.

Building Element - Compliance Requirement/Diagram
15. Unisex Accessible Toilet – Ref. AS1428.1 Cl. 15 a) Must be located so can be entered from a shared common area i.e. not an area reserved for only one sex. b) Provide min. internal dimensions of 1900mm width x 2300mm length around toilet pan. The washbasin (430mm min. depth projection) must not obstruct into space by no more than 100mm –Refer to Fig 43. c) Generally, the min. overall room size required to be 2100mm width x 2700mm length or 2350mm x 2350mm (NB this is dependent on internal fixture placement, basin size and location of entry door)
16. Ambulant Cubicles – AS 1428.1 Cl 16 a) Ambulant cubicles are intended to assist people with ambulant and sensory disability and older people. b) Provide 900mm x 900mm min. circulation area between successive door swings in airlocks/vestibules on path of travel leading to ambulant toilets compliant with AS1428.1 fig 34 below. c) Provide minimum 900mm x 900mm circulation area outside the ambulant cubicles compliant with AS1428.1:2009, fig 53B. d) Ambulant cubicles to have 900mm x 900mm clear area in front of (standard projection from wall) WC pan and clear of door swing. e) Ensure ambulant cubicles have 700mm clear width cubicle door with 900mm x 900mm clear area outside the door. f) Ambulant cubicle to be between 900mm – 920mm clear width with WC pan centred (i.e. 450-460mm set out). g) Height to top of pan seat to be between 460-480mm above FFL. h) Grabrails provided on both sides of cubicle at 800-810mm height (to top of grabrail) from FFL. i) Toilet roll holder located at 700mm max. height from FFL and 300mm max. distance from front of pan on adjacent wall, no closer than 50mm to grabrails. Toilet roll holder type to have exposed roll for ease of use. j) Provide in-use indicator and bolt/catch able to be opened from outside (in emergency). If snib-catch, the handle to be 45mm min. length from centre. k) A D-handle is recommended to be installed on external side of cubicle door to assist functional use/ operation of door (DDA/advisory).
17. Unisex Accessible Shower – AS 1428.1 Cl. 15.5 a) Generally minimum room dimensions (shower, WC and basin): 2000mm W x 2750mm L or 2000mm W x 3000mm L b) Combined accessible showers to have shower rail/curtain installed. c) Ensure the height of the top of shower seat to be between 470-480mm FFL. d) Provide a horizontal grab rail (660mm min), to be placed beneath the vertical shower support rail, between 390-400mm from side wall, installed between 800-810mm height from FFL. e) Provide vertical shower support rail to start between 1000-1100mm from FFL. The top of the shower support rail to finish between 1880-1900mm FFL. The rail to be placed between 580-600mm from the side wall. f) Ensure shower taps and soap holders between 900-1100mm from FFL. Ensure the taps/soap holders are 50mm min. width from the shower support rail and no further away than 800mm from side wall. g) Ensure the height of the hose wall outlet to be 700mm height above FFL, compliant with AS1428.1 fig. 48 to ensure suitable hose length when showering. To also include suitable back-flow prevention device. h) The 2 x clothes hanging devices required outside the shower recess to be between 400-600mm length from the seat, installed between 1200-1350mm from FFL.
18. Signage – BCA Part D3.6 and AS1428.1

Building Element - Compliance Requirement/Diagram
Directional Signage: a) Provide directional signage, e.g. at any toilet banks (without accessible toilet), to show path of travel to nearest accessible toilet and/or at the non-accessible entry to show path of travel to the alternate accessible entrance/lift. b) The directional signage for these items to include: appropriate raised directional arrow, raised tactile pictogram, raised text (in title case) and Braille and international symbol of access, compliant with AS1428.1. c) Identification Signage should then be installed at the end of the journey (that is identified with directional signage) to confirm that the accessible feature/facility has been reached d) The signage to be located on the wall, adjacent to latch side of door between 1200-1600mm height from FFL (with single lines of tactile text located between 1250-1350mm above FFL). If the sign can be temporarily obscured consideration for additional overhead directional signage located above 2m height (advisory).
Sanitary Facilities: e) All male, female and accessible toilet identification signs to include appropriate raised tactile pictogram, raised text (in title case) and Braille. f) Entry doors to airlocks to sanitary facilities also require raised tactile pictogram, raised text (in title case) and Braille to identify each sanitary facility within. g) Accessible toilet sign to include international symbol of access (wheelchair logo) in white on blue background, compliant with AS1428.1. h) Accessible toilet sign to also include 'LH' or 'RH' to indicate a left-hand or right-hand transfer onto toilet pan. Min. font size to be 20mm san serif, compliant with AS1428.1. i) All male and female ambulant cubicle signs to include appropriate raised tactile pictogram, raised text (in title case) and Braille. j) Unlike, identification signage for rooms, this signage to be located on the ambulant cubicle door between 1200-1600mm height from FFL
Accessible Exit Signs: k) Provide raised tactile pictogram, raised text (in Title Case) and Braille complying with Specification D3.6 to identify each door required by BCA Cl. E4.5 to have an exit sign. l) The signage content to state "Exit" and "Level" and either: m) (a) the floor level number; or n) (b) a floor level descriptor; or o) (c) a combination of (a) and (b) p) Min. font size to be 20mm san serif, in addition to other Specification D3.6 signage requirements. q) Sign must be located on the side that faces a person seeking egress
Hearing Augmentation Signs: r) Areas with hearing augmentation require identification signs that include international symbol of hearing (ear logo) in white on blue background, compliant with AS1428.1 and appropriate raised tactile pictogram, raised text (in title case) and Braille. These are required: ○ At doorway entrances to room (latch side of door between 1200-1600mm height from FFL) or if an open area suitably located to designate the area and; ○ Within the room/area to identify the hearing augmentation system, the area covered and how to use and/or gain assistance.

Appendix B:
Stair / Ramp Summary Recommendations
(for information only)

Stair/Ramp Analysis (generic)

Stairs	Access requirement	Handrails	Balustrade	Slip Resistance	Treads, Risers, Widths, Other	TGSI's	Common Issues
Fire Isolated Stairs (FIS)	**NO** Only minor provisions made for egress.	**YES:** 1 handrail required which must resemble that required by the accessibility provisions, i.e.: • 180 degrees handrail turndown or return to wall, 300 mm past last riser. • 30 to 50 mm diameter with a 270 degrees clearance around the top of the handrail, • 50 mm clearance to back of handrail, and to a height of 600 mm above the handrail. • Located between 865 mm and 1 m above nosing line. And must be at consistent height through the stairs and landings. • Continuous rail, no handhold breaks. • Clear area for 270 degrees to the top of the handrail. **Ref:** BCA D2.17, D3.3(a)(iii) & Cl 12 of AS 1428.1-2009.	**YES:** No less than 865 mm above stair nosing lines, no less than 1 m above landings. No openings greater than 300 mm OR in the case of rails, top rail, mid rail and bottom rail required. No gaps greater than 150 mm above nosing line and 460 mm between rails. **Ref:** BCA D2.16(g)(h)(i)	**YES:** P3 rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.13, D2.14, D3.3(a)(iii) & Cl 11, 7.2, 7.3 of AS 1428.1-2009.	**Tread:** 250 to 355 mm. **Riser:** 115 to 190 mm **Quantity:** Must be between 550 to 700 when applying (2 x Riser + Tread.) **Open Riser:** Permitted to 125 mm. **Stair Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Stair Height Clearance:** No less than 2 m. **Ref:** BCA D2.13, D1.6	**NO**	• Lip of the nosing strip excessive in height. • No site allowance for balustrade tolerances. • If separate handrail and balustrade is not used, this usually causes a conflict with the requirement to have the same heights throughout the landings and stairs. • Tread and riser dimensions not constructed uniform in dimension.
FIS & Communication Stairs	**YES**	**YES:** Fully accessible handrails required to both sides as follows • 180 degrees handrail turndown or return to wall, • 30 to 50 mm diameter with a 270 degrees clearance around the top of the handrail, • 50 mm clearance to back of handrail, and to a height of 600 mm above the handrail. • Located between 865 mm and 1 m above nosing line. And must be at consistent height through the stairs and landings. • Continuous rail, no handhold breaks • Clear area for 270 degrees to the top of the handrail. **Ref:** BCA D2.17, D3.3(a)(ii) & Cl 11 & 12 of AS 1428.1-2009.	**YES:** No Less than 865 mm above stair nosing line, no less tanh 1 m above landings. No openings greater than 125 mm. No climbable members between 150 and 760 mm where the floor level is 4 m or more above the surface beneath. **Ref:** BCA D2.16(g)(h)(ii)	**YES:** P3 rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.13, D2.14, D3.3(a)(iii) & Cl 11, 7.2, 7.3 of AS 1428.1-2009.	**Tread:** 250 to 355 mm. (Public) **Tread:** 240 to 355 mm. (Private) **Riser:** 115 to 190 mm. **Quantity:** Must be between 550 to 700 when applying (2 x Riser + Tread.) **Open Riser:** Not permitted, must be opaque. **Riser Splay Back:** Be vertical or max 25 mm. **Stair Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Stair Height:** No less than 2 m. **Ref:** BCA D2.13, D1.6	**YES:** Required to the top and bottom of landings. No requirement for the mid landing. **Ref:** BCA D3.8, AS/NZS 1428.4.1-2009	• Lip of the nosing strip excessive in height. • Outer handrail not continuous due to allowing for fire hydrant equipment. • No site allowance for balustrade tolerances. • If separate handrail and balustrade is not used, this usually causes a conflict with the requirement to have the same heights throughout the landings and stairs. • Tread and riser dimensions not constructed uniform in dimension.
Interconnecting Communication Stairs (between tenancy levels not required as fire egress/exit)	**YES**	**YES:** Fully accessible handrails required to both sides as follows: • 180 degrees handrail turndown or return to wall, • 30 to 50 mm diameter with a 270 degrees clearance around the top of the handrail, • 50 mm clearance to back of handrail, and to a height of 600 mm above the handrail. • Located between 865 mm and 1 m above nosing line. And must be at consistent height through the stairs and landings. • Continuous rail, no handhold breaks. • Clear area for 270o to the top of the handrail. **Ref:** BCA D2.17, D3.3(a)(ii) & Cl 11 & 12 of AS 1428.1-2009.	**YES:** No Less than 865 mm above stair nosing line, no less tanh 1 m above landings. No openings greater than 125 mm. No climbable members between 150 and 760 mm where the floor level is 4 m or more above the surface beneath. **Ref:** BCA D2.16(g)(h)(ii)	**YES:** P3 (wet) and P4 (wet) rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.13, D2.14, D3.3(a)(iii) & Cl 11, 7.2, 7.3 of AS 1428.1-2009.	**Tread:** 250 to 355 mm. (Public) **Tread:** 240 to 355 mm. (Private) **Riser:** 115 to 190 mm. **Quantity:** Must be between 550 to 700 when applying (2 x Riser + Tread.) **Open Riser:** Not permitted, must be opaque. **Riser Splay Back:** Be vertical or max 25 mm. **Stair Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Stair Height:** No less than 2 m. **Ref:** BCA D2.13, D1.6	**YES:** Required to the top and bottom of landings. No requirement for the mid landing. And around base of stair stringer or stair when it can be considered as an overhead obstruction within 2 m from floor level. **Ref:** BCA D3.8, AS/NZS 1428.4.1-2009	• Lip of the nosing strip excessive in height. • No site allowance for balustrade tolerances. • If separate handrail and balustrade is not used, this usually causes a conflict with the requirement to have the same heights throughout the landings and stairs.
Accessible Ramp	**YES**	**YES:** Fully accessible handrails required to both sides as follows: • 180 degrees handrail turndown or return to wall, • 30 to 50 mm diameter with a 270 degrees clearance around the top of the handrail, • 50 mm clearance to back of handrail, and to a	**YES:** No Less than 865 mm above stair nosing line, no less tanh 1 m above landings. No openings greater than 125 mm. No	**YES:** P3 (dry) and P4 (wet) rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not	**Ramp Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Ref:** BCA D2.13, D1.6	**YES:** Required to the top and bottom of landings. No requirement for the mid landing.	• Handrails extension protruding over traverse path or side boundary. Note: TGSI are not required for residential aged care and nursing homes buildings.

Stairs	Access requirement	Handrails	Balustrade	Slip Resistance	Treads, Risers, Widths, Other	TGSI's	Common Issues
(1:14 max. gradient)		height of 600 mm above the handrail. • Located between 865 mm and 1 m above the surface. And must be at consistent height through the ramp and mid-landings. • Continuous rail, no handhold breaks. • Continuous kerbing on both sides in compliance with AS1428.1 Figures (18 & 19). • Handrails not to protrude into over the traverse path. • Clear area for 270 degrees to the top of the handrail. **Ref:** BCA D2.17, D3.3(a)(i) & Cl 1.3 & 12 of AS 1428.1-2009.	climbable members between 150 and 760 mm where the floor level is 4 m or more above the surface beneath. **Ref:** BCA D2.16(g)(h)(ii)	set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.14, D3.3(a)(iii) & Cl 11, 7.2, 7.3 of AS 1428.1-2009.		**Ref:** BCA D3.8, AS/NZS 1428.4.1-2009	
Non-Accessible ramp (Steeper than 1:14)	**NO** Only minor provisions made for egress.	**YES:** 1 non-accessible handrail with no accessible features required for egress purposes only. **Ref:** BCA D2.17	**YES:** No Less than 865 mm above stair nosing line, no less tanh 1 m above landings. No openings greater than 125 mm. No climbable members between 150 and 760 mm where the floor level is 4 m or more above the surface beneath. **Ref:** BCA D2.16(g)(h)(ii)	**YES:** P3 (dry) and P4 (wet) rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.14, D3.3(a)(iii)	**Ramp Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Ref:** BCA D2.13, D1.6	**NO**	• Lack of non-accessible handrail in shallow non-accessible ramps may be found
Step Ramps	**YES**	**YES:** Accessible handrails/barriers required to both sides as follows: • Handrails as per Figure 22 of AS1428.1-2009 • Side barriers (45 degrees splay, 450mm minimum walls, handrails or kerb/kerb-rails) **Ref:** BCA D3.3(a)(i) & Cl 10.6 of AS 1428.1-2009.	**N/A**	**YES:** P3 (dry) and P4 (wet) rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered. **Ref:** BCA D2.14, D3.3(a)(iii)	**Ramp Width:** Minimum unobstructed width of 1000 mm, measured clear of handrails. Note: 1000 mm clear width will only allow for 100 persons, occupancy quantity review may be required. **Ref:** BCA D2.13, D1.6	**NO**	• Excessive length • Excessive rise • Non-compliant side barriers • Insufficient landings
Threshold Ramps	**YES**	**N/A**	**N/A**	**YES:** P3 (dry) and P4 (wet) rated slip resistance and highlighted nosing's to no less than 30% luminance contrast to the background. Nosing widths to be between 50 & 75 mm. Strip may be set back 15 mm from the front edge of the nosing but where it is not set back the luminance contrast must not extend down the riser by more than 10 mm. The lip between the tread and strip must not exceed 3 mm, or 5 mm where the edges are chamfered.	**Ramp Width:** Doorway width. **Ref:** BCA D1.6 **Ref:** BCA D2.14, D3.3(a)(iii)	**NO**	• Excessive rise