



A Bureau Veritas Group Company

Accessibility Design Review Report

**Mosman High School Upgrade Works
745 Military Road, Mosman NSW**

Prepared for:	Multiplex
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1. Introduction

Multiplex have engaged the services of McKenzie Group Consulting as Accessibility and DDA consultants to conduct a review of the project documentation to ensure that functional and compliant accessibility has been applied to the design. As members of the Association of Consultants in Access Australia (ACAA), McKenzie Group Consulting use expert accessibility knowledge to ensure the project complies with the spirit and intent of the Disability Discrimination Act (DDA), within the project scope.

1.1. Purpose of Report

This report forms part of the SSDA Design review. The report is prepared in relation to a proposed works at Mosman High School in the inner Sydney suburb of Mosman.

This report provides a compliance overview of the project with respect to achieving compliance with the Building Code of Australia (BCA) and the Disability Discrimination Act (and Disability Standards) (DDA), within the project scope. Detailed Design documentation and compliance assessment will be undertaken as the design develops.

The assessment is provided in two parts, the first relates to areas of compliance that are **mandatory** under the BCA with the second part relating to **Advisory recommendations/enhancements** that could be adopted to improve building functionality, accessibility and the safety of occupants. Refer to Sections 5 & 6 of this report.

1.2. Report Objective

A key objective of the access requirements of the Premises Standards and NCC is to provide, as far as is reasonable, all people with safe, equitable and dignified access to a building and the services and facilities within that building.

A key objective of this report is to provide assessment commentary to assist the design process to provide equivalent access to the degree necessary to facilities to suit visitors with a range of disabilities in an equitable and dignified manner.

1.3. Project Description

The proposed works includes the formation of a new four storey mixed use School block, termed Block G.

Block G is sited to the northeastern corner of the existing Mosman High School Site, with its main frontage to Belmont Street, and extends along Military Road to the east.

The project comprises of the following:

- Ground Floor Level
 - Administration space and offices;
 - Sports Hall and associated shower / change rooms;
 - Canteen;
 - Theatre / Lecture Learning Unit;
- First Floor Level
 - General Learning Spaces;
 - Upper Theatre Space;
- Second Floor Level
 - Senior General Learning Spaces;
 - Staff Room
- Third Floor Level

- Library;
- Staff Room;
- Outdoor Play and Outdoor Learning Spaces;
- Fourth Floor (Roof) Level
 - Outdoor Play

2. Legislative Requirements

The legislative requirements for this project comprises both Federal and State legislation.

Federal

The Disability Discrimination Act (DDA - 1992) is Federal Government legislation enacted in 1993 that seeks to ensure all new building infrastructure, refurbishments, services and transport projects provide functional and equitable accessibility. The DDA is a complaints-based legislation, which is administered by the Australian Human Rights Commission (AHRC). For any built environment the key requirement of the DDA is to ensure functionality, equality and dignity of people with disabilities, their companions, family and care givers.

The DDA utilises statutory instruments known as Disability Standards to provide detailed requirements. The Disability Standards are: Disability (Access to Premises – Buildings) Standards 2010, Disability Standards for Education 2005 and the Disability Standards for Accessible Public Transport 2002. These Disability Standards draw extensively on technical provisions in the AS 1428 series details technical requirements related to design for access and mobility.

State

The Building Code of Australia has adopted key accessibility and DDA legislation into the 2011 and subsequent BCA. In particular adherence to the Access to Premises Standard (2010) (APS); AS1428.1 2009; AS1428.4.1 2009 and AS2890.6 2009 has become mandatory. This means that compliance with the relevant sections of the BCA, ensures compliance with the relevant 'Premises' component of the DDA.

However, compliance with the BCA alone does not necessarily mean compliance with the Disability Discrimination Act if the elements of equality, dignity and functionality remain compromised within an environment. The building owner/occupier should therefore ensure that their policies, practices and procedures promote equality in all employment, education and services provided, within their built environment.

2.1. Access to Premises Standards application and exemptions to existing buildings

Where the project involves the internal works within part of an existing building by the building owner; The Access to Premises Legislation (2010) defines these new works as the new part of the building and requires that the affected parts of a building are also made accessible and compliant to the requirements of AS1428.1 2009 and the Access to Premises Legislation (2010) technical provisions. Affected parts are defined as the principal pedestrian entrance and a continuous path of travel between the primary entrance and the new part. (PS 2010 pg. 5-6). In this case this also includes the condition of the existing lift to travel between levels.

2.2. Referenced Legislation and Standards

The review of the project has been undertaken against the following legislation;

- Disability Discrimination Act (DDA) 1992.
- Disability (Access to Premises – Buildings) Standards 2010 (DAPS 2010).
- Disability Standards for Education 2005
- Building Code of Australia (BCA) and BCA referenced standards including:
 - AS1428.1 2009 Part 1: General Requirements for access – new building work.

- AS1428.2 1992 Part 2: Enhanced and additional requirements – Buildings and facilities.
- AS1428.4.1 2009 Part 4.1: Means to assist the orientation of people with vision impairment – TGSI.
- AS1735.12 1999 Lift facilities for people with disabilities.

3. Documentation

The report has been prepared based on a review of the drawings listed in Appendix A, Consultants Drawings prepared by Woods Bagot dated 9th February 2021.

4. Exemptions and Performance Based Solutions

4.1. Exemptions

Based on the use of some areas within a building, it is reasonable to not provide access to some spaces where it is deemed inappropriate because of the required duties to be carried out in the space or if the area poses as a health or safety risk for people with a disability. These areas include:

- An area where access would be inappropriate because of the particular purpose for which the area is used.
- An area that would pose a health or safety risk for people with a disability.
- Any path of travel providing access only to an area exempted by (a) or (b).
- Plant including plenums, service routes, equipment rooms for computers or data (including persons with ambulant aids).
- Pathways used to gain access exempted plant spaces only.
- Cleaner's rooms used only by cleaners.

4.2. Performance Based Solutions

Where compliance cannot be met with current building legislation, these departures are to be addressed via the Performance Based Solution (PBS) Assessment process. This assessment will be unique to each building, combining an understanding of the principles of access with alternative methods to assist the design team, building owners / operators and occupants to achieve an effective solution.

No performance-based solution items have been identified at this stage of design.

Please advise if there are any proposed performance solutions with regard to the design of this project.

5. Compliance Assessment – BCA (Mandatory)

The following compliance assessment is divided into two (2) sections: BCA Mandatory Compliance and DDA (Advisory).

BCA (Mandatory) Compliance refers to meeting the minimum mandatory compliance of the BCA and the Premises Standard component of the DDA.

DDA (Advisory) Compliance refers to advisory information for improving the accessibility design outside BCA parameters and the Access to Premises Standards. These DDA recommendations relate to best practice design for accessible environments. These recommendations propose to enhance the design, in conjunction with the owner/occupier's policies, practices and procedures maximizing DDA compliance and meeting the spirit and intent of the DDA.

5.1. General Building Access Requirements (BCA D3.1)

Buildings and parts of buildings must be accessible in accordance with Table 3.1 of the BCA.

A continuous accessible path of travel is to be provided as follows:

Class 5 – Office/Administration;

Class 9b – Public Realm/Function Areas

To and within all areas normally used by the occupants

5.2. External approaches, walkways and kerbs (D3.1, D3.2, D3.3, D3.8 & AS1428.1)

Access Requirement

A continuous accessible path is to be provided to the new building:

- From the main points of a pedestrian entry at the allotment boundary, and
- From another accessible building connected by a pedestrian link
- From any required accessible carparking space on the allotment

The crossfall and gradient of the external pathways will not exceed 1:40 and will be constructed of a firm, hardstand surface in accordance with AS1428.1-2009 requirements.

External public paths will achieve a minimum width of 1800mm or where a reduced width is provided (minimum 1200mm) passing bays will be provided every 20m in high trafficable areas to allow two wheelchairs to pass.

Warning Tactile Ground Surface Indicators (TGSIs) and/or provision of bollards shall be provided either side of the car park entry points on Grace Avenue and Forest Way to adequately identify the roadway hazard for pedestrians using the footpath. In addition, TGSIs will be provided at kerb ramps and at pedestrian crossings in accordance with AS1428.4.1 and Council requirements.

Consideration to the provision of a textural and luminance contrast on the lateral border of all pathways and key transition areas will be given in the next phase of design. The provision of tactual clues via either a building/fence line, kerb line etc. along the edging of each walkway will be considered to enable a person with a vision impairment to detect key transition areas. In addition, obstacles abutting the public paths of travel i.e. seating, bins, bike racks or the like, shall possess a minimum of 30% luminance contrast to make these fixtures readily identifiable to a user on the path.

Accessibility Commentary

The external paths of travel to the site comprises of stair and ramped access directly into Block G via Belmont Road, with additional stepped access into the central courtyard of the school site.

5.3. Building Entrances

Accessibility Requirement

Limited detail is provided at this stage of design regarding the entrances to specialty food and retail tenancies. To comply, the tenancies will require compliant access to and within via a single leaf door as a minimum achieving the required unobstructed clear width of 850mm. Access to the tenancies will be further reviewed as the design progresses.

A level transition shall be provided to all entrances and external areas which will be achieved via provision of threshold ramps where required in accordance with AS1428.1-2009 requirements.

All doors shall have light operational forces (less than 20 N) and shall have lever action door hardware selected and installed in accordance with AS1428.1 requirements.

Any shopfront glazing or glazed doors shall be clearly marked with a contrasting band not less than 75mm wide for full width of the door with lowest edge at 900-1000mm FFL.

Accessibility Commentary

The main entrances to the centre comprise of automated sliding doors which provide compliant access for people with a disability. The unobstructed clear width of these doors will achieve the required minimum of 850mm (920mm leaf required).

5.4. Internal Paths of Travel

Accessibility Requirement

An accessible path of travel is required to all accessible areas within accessible buildings, normally used by occupants. Internal walkways should be designed with the following features:

- Minimum width of 1000mm to be provided
- Suitable circulation spaces to enable turning into adjacent doorways / around fixtures and furniture (1240mm min width),
- Adequate passing spaces (1800mm width), and
- Turning spaces along corridor or terminations (1540mm min width).

A continuous path of travel will be provided to and within the centre comprising of a minimum width of 1800mm in high trafficable areas. Where a reduced width is provided (minimum 1200mm) passing bays will be provided every 20m in high trafficable areas to allow two wheelchairs to pass.

Finishes will be selected to ensure wall, floor and door finishes comply with AS1428.1-2009 requirements including changes in surfaces having abutment vertical rises of 3mm or less; or 5mm or less where rounded or bevelled edges and a minimum 30 % luminance contrast provided to all doorways in accordance with the requirements of Clause 13.1 of AS1428.1.

Any glazed doors shall be clearly marked with a contrasting band not less than 75mm wide for full width of the door with lowest edge at 900-1000mm FFL.

Accessibility Commentary

Internal accessible paths of travel will be further reviewed as the design progresses however initial review indicates compliance can be achieved.

5.5. General Circulation Stairs / Ramps

Accessibility Requirement

An accessible path of travel is required to all accessible areas within accessible buildings, normally used by occupants.

All public circulations stairs and ramps (excluding fire-isolated stairs/ramps) must be provided with handrails/kerb rails to both sides, handrail extensions & turndowns, nosing strips (Stairs) and Tactile Ground Surface Indicators (TGSIs).

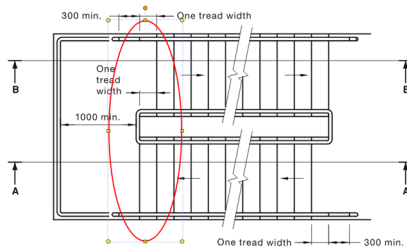
Circulation stairs and ramps will be required to be set-back from transverse paths of travel so that handrail extensions do not protrude into corridor paths of travel.

Offsetting the stair at the mid landing will allow a continuous single handrail which will not require vertical sections.

Fire-isolated Stairs (FIS)

All FIS stairs shall be designed and constructed in accordance with Clause 11(f), (g) and Clause 12.

Offsetting the stair at the mid landing will allow a continuous single handrail which will not require vertical sections.



Accessibility Commentary

General circulation stairs/ramps will be further reviewed as the design progresses, however initial review indicates compliance can be achieved.

5.6. Lifts / Escalators (D3.1, E3.6, AS1428.1 & AS1735.12)

Accessibility Requirement

Any lift travelling greater than 12m requires a minimum compartment size of 1400mm wide x 2000mm depth (requires 2000mm depth where stretcher use indicated and travelling >12m).

Any lift travelling less than 12m requires a minimum compartment size of 1100mm wide x 1400mm depth.

The fitout of the lifts shall comply with AS1735.12, providing a minimum doorway clearance of 900mm.

Fitout of lifts to include: Handrail 600mm (min) length; at height between 850-950mm, Tactile and Braille symbols on control buttons and panels, Automatic auditory information detailing lift stops. Control buttons set back from corner.

Accessibility Commentary

A lift is provided adjacent to the northern core providing a connection between all levels. Tactile Ground Surface Indicators will be located in accordance with AS1428.4.1-2009.

5.7. Internal Doorways

Accessibility Requirement

An accessible path of travel is required to all accessible areas within accessible buildings normally used by occupants. Doors on accessible paths of travel require the following (in accordance with AS1428.1-2009):

- Unobstructed clear opening widths to be a minimum of 850mm (- a 920mm door leaf is required).
- Door control or "after-hours" swipe card access to be located on a level landing, in an accessible location, in accordance with Clause 13.5 of AS1428.1-2009.
- Door circulation clearances;
- All doors shall have light operational forces (less than 20 N) and shall have lever action door hardware selected and installed in accordance with AS1428.1 requirements.

Any glazed doors shall be clearly marked with a contrasting band not less than 75mm wide for full width of the door with lowest edge at 900-1000mm FFL.

Accessibility Commentary

Doors on accessible paths of travel will be further reviewed as the design progresses.

5.8. Sanitary Facilities

Accessibility Requirement

The new amenities blocks shall comprise of male and female toilets, male and female ambulant cubicles and unisex accessible sanitary facilities.

The male and female shall include an ambulant cubicle within each bank. The layout and fitout of the compartments shall be designed to comply with Clause 16 of AS1428.1-2009.

Where gender shower facilities are provided, the unisex accessible sanitary facility shall include an accessible shower within the compartment to cater for staff with a disability.

The internal dimensions and layout of the unisex accessible sanitary facility shall be appropriate to ensure required circulations spaces to the pan, shower and basin as specified in Clause 15 of AS1428.1-2009. The minimum compartment size shall achieve 2630mm x 2300mm.

An equal distribution of right-handed and left-handed unisex accessible sanitary facilities are to be provided within the building to cater for all users and their functional requirements.

Accessibility Commentary

Amenities are proposed to the north eastern core on each level as well as to the change facilities.

The compartment sizes indicate that compliance can be achieved. The layout and fitout shall be further reviewed in the next phase of design.

5.9. Signage

Accessibility Requirement

Accessible way finding should highlight the pathway from entrance to lifts or amenities and to the key components of the facility.

Where a pedestrian entrance is not accessible, directional signage incorporating the international symbol of access, in accordance with AS 1428.1 must be provided to direct a person to the location of the nearest accessible pedestrian entrance. This type of signage is required at the stair access points directing the visitor to the location of the ramp/walkway entrance.

Signage will be provided at exit doors on each level and at common use accessible toilets in accordance with AS 1428.1.

Signage to accessible sanitary facilities requires identification with the international symbol of access, raised tactile and Braille signage and letters RH or LH to indicate side of transfer to the WC pan.

Accessibility Commentary

A review of the door signage is to take place when the signage package becomes available.

5.10. Hearing Augmentation

Accessibility Requirement

Hearing Augmentation Listening Systems are an essential assistive device for people who use hearing aids and are mandatory at screened reception counters and areas with public announcement systems.

Accessibility Commentary

As the design progresses requirements for hearing augmentation will be clarified and confirmed.

5.11. Wheelchair Spaces / Fixed Seating

Accessibility Requirement

Provision of wheelchair spaces is required within the Auditorium in accordance with D3.9 of the BCA.

Accessibility Commentary

A review of the theatre seating will be further reviewed as the design progresses.

6. Compliance Assessment - DDA (Advisory)

The following recommendations for design enhancement are provided for areas in which potential compliance risks have been identified with respect to the DDA or where improved outcomes with respect to accessibility, functionality and safety have been identified.

6.1. Emergency Evacuation

Accessibility Recommendation

The emergency evacuation strategy for the facility should address the operational solution of evacuating people with disabilities and should detail the following:

- Stair refuges, or
- Fire-isolated lift lobbies and use of lifts in emergency

Fire evacuation plans should include provision of management plans to assist individuals with disabilities or access requirements. Individuals with accessible requirements should be provided with a “fire buddy” to escort them to pre-determined areas of refuge.

The current best practice is detailed in the 'AS 3745 - 2010 Planning for emergencies in facilities' and should be used as a guideline to assist in the implementation of the Emergency Plan.

Accessibility Commentary

Note for consideration.

6.2. Landscaping

Accessibility Recommendation

The following are some design considerations for providing equitable access to the public realm; Provision of rest seating opportunities along walkways, stair landings etc.

- Lighting designs that minimise glare.
- Luminance contrast of features such as; steps, seats, bollards, bins etc.
- Landscape planting can offer tactile and olfactory clues to the environment to enhance different areas.

Accessibility Commentary

Note for consideration.

6.3. Acoustic / Lighting Design

Accessibility Recommendation

Good acoustics creates a good environment for all users.

- Acoustic design to seek to minimise reverberation noise.

Lighting design to confirm that minimum illumination levels achieved.

- Minimum levels of maintenance illumination to be provided; e.g. – entrances 150 lux, toilet 200 lux, counters 250 lux.

Accessibility Commentary

Note for consideration.

6.4. Reception Counters, Other Furniture & Fixtures

Accessibility Recommendation

The layout of reception / furniture fit-out and joinery - in accessible / common use areas, is recommended to be designed with consideration to accessibility requirements.

Future design should consider accessible requirements teapoint, parent rooms, vending machines, drinking fountains, telephones, controls etc.

- Future fitout/design of fixtures, furniture and fittings should consider accessible requirements in accordance with AS1428.2;
- Items shall be a minimum of 500mm away from the path of travel.

Accessibility Commentary

Note for consideration.

7. Compliance Summary

As members of the Association of Consultants in Access Australia (ACAA), we have reviewed the SSDA Application design documents (refer appendix A) for compliance with the current building assessment provisions, including (but not limited to) the following:

- Disability Discrimination Act (DDA) 1992.
- Building Code of Australia 2016 (Amendment 1) and referenced Australian Standards; and
- The Disability Access to Premises (Buildings) Standard 2010

This report provides a compliance overview of the project with respect to achieving compliance with the above legislation. In the next phase of the design process it is anticipated that as additional detail is provided - particularly floor plans, dimensions and features- the accessibility of this development can be further detailed.

Subject to addressing the actions identified, McKenzie Group Consulting confirm that the project documentation provides appropriate accessibility capable of complying with the BCA & Disability (Access to Premises – Buildings) Standards 2010 and the spirit and intent of the DDA.

Assessed by:	Reviewed by:
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8. Appendix A – Document List

Woods Bagot project number 121468:

Drawing No.	Rev	Title
SSDA-2201	X	Ground Floor Plan
SSDA-2202	X	Level 1 Floor Plan
SSDA-2203	X	Level 2 Floor Plan
SSDA-3201	X	Sections
SSDA-3202	X	East & West Elevation
SSDA-3203	X	North & South Elevation