JAZ

## Accessibility Report

# New Primary School in Murrumbateman <br> 2 Fairley Street, Murrumbateman, NSW 

Report No:<br>MURR-DD-SSDA-RPT-0001<br>Revision:<br>Date:<br>14 May 2021

Address
Suite 302, 838 Collins Street
Docklands VIC 3008
Telephone
+613 91086198
Email
info@jazbc.com
Website
www.jazbc.com

ABN 28469940097
ACN 638731165

## Report Prepared for

Hansen Yuncken<br>Building 1<br>Level 3, 75-85 O'Riordan Street<br>Alexandria NSW 3015

## Table of Contents

1. Introduction 4
1.1 The Proposal 4
1.2 Site Description 5
1.3 Brief and Scope 6
1.4 Documentation 6
1.5 Use and Class of Building 6
2. Access for People with a Disability 7
2.1 General Building Access Requirements 7
2.2 D3.4 Exemptions 7
3. Design Review 8
3.1 Accessible Carparking Facilities 8
3.2 External Paths of Travel 8
3.3 Building Entrances 9
3.4 Doorways 10
3.5 Internal Paths of Travel 11
3.6 Passenger Lifts 11
3.7 Walkways 11
3.8 Ramps 12
3.9 Stairways 13
3.10 Internal Finishes 14
3.11 Unisex Accessible Sanitary Facilities 14
3.12 Sanitary Facilities for People with Ambulant Disabilities 15
3.13 Hearing Augmentation 16
3.14 Wheelchair Seating Spaces 16
3.15 Signage 17
4. Additional Accessibility Recommendations 17
4.1 Paths of Travel 17
4.2 Carparking 17
4.3 Lighting 17
4.4 Internal Finishes 17
4.5 Reception 18
4.6 Staff Workstations 18
4.7 Kitchen/Kitchenette Facilities 18
4.8 Seating 19
4.9 Egress for People with Disabilities 19
5. Performance Solutions ..... 19
6. Conclusion ..... 19
APPENDIX A ..... 20

## Revision History

| No. | Description | Prepared by | Date |
| :--- | :--- | :--- | :--- |
| SSDA-RPT-0001- Rev. A | Murrumbateman Access Report | Kenny Cheah <br> Coffelf | $14 / 05 / 2021$ |

## Conditions

This report may only be reproduced in full by the addressee for use with respect to this specific project. No organisations or individuals are permitted to reproduce this report or any part thereof for any other purpose without the prior written authorisation of Jaz Building Consultants Pty Ltd. This report is subject to change and no liability will be accepted in relation to any loss resulting from the use of this report pending approval from any authority having jurisdiction.

## New Primary School in Murrumbateman <br> 2 Fairley Street, Murrumbateman, NSW

## 1. Introduction

This accessibility report accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP\&A Act) in support of an application for a State Significant Development (SSD-11233241).

The development is for a new primary school located at 2 Fairley Street, Murrumbateman.
This report addresses the relevant Secretary's Environmental Assessment Requirements (SEARs), namely:-

| Plans and Documents | The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point. <br> In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following: <br> - Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and <br> (5) Planning Certificate). <br> - Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: <br> - architectural design statement. <br> - diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal. <br> - detailed site and context analysis. <br> - analysis of options considered to justify the proposed site planning and design approach. <br> - summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice. <br> - summary report of consultation with the community and response to any feedback provided. <br> - Geotechnical and Structural Report. <br> - Accessibility Report. |
| :---: | :---: |

### 1.1 The Proposal

The proposed development is for construction and operation of a new primary school with Core 21 facilities in Murrumbateman that will accommodate up to 368 students.

The proposed development includes:

- A collection of 1-2 storey buildings containing 14 home base units, 2 special education learning units, hall, administration facilities and library.
- On-site parking lot with 40 spaces and kiss-and-ride area.
- Outdoor sports court and play area.
- Integrated landscaping, fencing and signage.


## 1.2

## Site Description

The site is located at 2 Fairley Street, Murrumbateman, in the local government area of Yass Valley Council. The site is formally described as Lot 302 DP1228766 (refer to Figure 1). The site is irregular in shape and has an area of $15,434.92 \mathrm{~m}^{2}$.

The site is located at the northern end of the Murrumbateman village, which is characterised by a mix of uses including low density residential and some commercial.

Immediately surrounding development includes a tourist hotel to the north across Fairley Street, Murrumbateman Library (located in the former Murrumbateman schoolhouse, a local heritage item) to the south, a medical centre and childcare centre to the west, and rural land and equestrian facilities to the east across Barton Highway. There is also a cycling and equestrian pathway to the south between the site and library.

The site contains an existing parking lot in its northern end and a driveway along its western boundary. There is also a mound of soil at the southern end of the site. The site is otherwise cleared and vacant.


Figure 1 | Site Aerial Photograph
Source: Nearmap

### 1.3 Brief and Scope

This report documents a preliminary review of the proposed project documentation with consideration to all aspects of accessibility to the site and throughout the development and with reference to the Building Code of Australia (BCA), Disability (Access to Premises - Buildings) Standards 2010 (Premises Standards), relevant Australian Standards as they relate to access to premises and the spirit and intent of the Disability Discrimination Act 1992 (Cth) (DDA).

This report has been prepared for Hansen Yuncken by JAZ Building Consultants with the aim of providing reasonable recommendations for Client consideration in regards to access to premises. JAZ Building Consultants has endeavoured to clearly identify each issue of concern with respect to the building element and with reference to relevant legislation and guidelines.

Where compliance with the BCA Deemed-to-Satisfy provisions is considered inappropriate or impractical, JAZ Building Consultants may liaise with the relevant Building Surveyor to determine a Performance Solution which can be justified under the Performance Requirements of the BCA. It should be noted that expert judgement from an accredited Access Consultant would not alleviate the Client's obligations under the DDA.

Matters that fall outside the scope of this report include structure or installation methods and assessment against Occupational Health and Safety legislation.

In this assessment, JAZ Building Consultants will refer, not only to the Disability (Access to Premises - Buildings) Amendment Standards 2010 (No. 1), but to additional Accessibility Standards in draft and current Australian Standards, to meet the spirit and intent of the DDA and to ensure best practice principles are applied for this project.

### 1.4 Documentation

Design documents reviewed as part of this report include the following:

- Preliminary SSDA drawings MURR-SK prepared by Pedavoli Architects dated 27/04/2021


### 1.5 Use and Class of Building

Pursuant to the BCA, the primary classification for the proposed buildings are as follow.
Blocks A, B, C

| Level | Proposed Use | Building Classification |
| :--- | :--- | :--- |
| Ground Floor | Office, School | $5,9 \mathrm{~b}$ |
| Level 01 | Office, School | $5,9 \mathrm{~b}$ |
| Block D |  |  |
| Level | Proposed Use | Building Classification |
| Ground Floor | Assembly Building | 9 b |

## 2. Access for People with a Disability

### 2.1 General Building Access Requirements

Buildings and parts of buildings must be accessible in accordance with BCA Table D3.1. The following table outlines the general building access requirements for this project:

| Building Class | Access Requirements |
| :--- | :--- |
| Class 5 | To and within all areas normally used by the occupants |
| Class 9b | To and within all areas normally used by the occupants |
| Schools | To wheelchair seating spaces provided in accordance with clause <br> D3.9. <br> To and within all other areas normally used by the occupants, except <br> that access need not be provided to tiers or platforms of seating areas <br> that do not contain wheelchair seating spaces |
| An assembly building not being <br> a school or an early childhood <br> centre |  |

### 2.2 D3.4 Exemptions

Further discussions will be required to define the use and function of identified, specialist areas and determine the suitability for full, partial or managed accessibility. Where full access is unachievable due to the functions of the space, there may be opportunity to assess the area under the permitted exemptions of the BCA D3.4 which states:

The following areas are not required to be accessible:
a) An area where access would be inappropriate because of the particular purpose for which the area is used.
b) An area that would pose a health or safety risk for people with a disability.
c) Any path of travel providing access only to an area exempted by (a) or (b).

In the instance of the above, it would be necessary for the school to provide written confirmation regarding the function and occupancy of the areas to be exempted, including reference to the proposed management plan to be implemented in the event that access is required to the space in the future, to ensure accessibility is not compromised. These may include areas such as the following, which are subject to further discussion:
a) Cleaners rooms
b) Cleaners store rooms
c) Mechanical plant rooms
d) Electrical rooms
e) Comms rooms

## 3. Design Review

Generally the concept design documentation of the proposed school shall be developed in line with the spirit and intent of the DDA, Building Code of Australia 2019 Amendment 1 (BCA), and Australian Standards as they relate to access for people with disabilities. Access for people with disabilities will be provided to the proposed school on an independent, functional and equal basis.

This professional opinion is subject to further design documentation in accordance with the following general recommendations to ensure appropriate access provision for people with disabilities is provided. At this stage, detailed design elements, such as levels, dimensions, door schedules, toilet fixtures and fittings, are limited and require further review to ensure compliance with the BCA and the spirit and intent of the DDA.

### 3.1 Accessible Carparking Facilities

3.1.1 Accessible carparking spaces must be provided in accordance with BCA Table D3.5.

The proposed carpark located at the northern side of the site off Fairley Street incorporating 40 carparking spaces, which require minimum one accessible carparking space.
3.1.2 Spatial layout of accessible car spaces must be provided in accordance with AS/NZS2890.6(2009), including:
a) a marked dedicated car space of $2400 \mathrm{~mm} \times 5400 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$;
b) a marked shared area of $2400 \mathrm{~mm} \times 5400 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ adjacent to the dedicated car space for side loading and unloading;
c) an unmarked shared space of $2400 \mathrm{~mm} \times 2400 \mathrm{~mm}$ to the front or rear of the dedicated car space for rear loading and unloading.
3.1.3 The following layout features are also required as per AS/NZS2890.6(2009):
a) A bollard to the shared space, located in the centre of the marked shared area at $750 \mathrm{~mm}-850 \mathrm{~mm}$ from the roadway end of the space;
b) Accessible carparking facilities, inclusive of dedicated and shared spaces, will have a minimum gradient of 1:200 for drainage purposes and shall not exceed 1:40 in both directions;
c) Note that wheel-stops and other fixtures (other than the required bollard) are not permitted within the accessible carparking facility.
3.1.4 Ensure pavement marking to the accessible carparking space is in accordance with AS/NZS2890.6(2009) Section 3, including the following:
a) International symbol for access as per AS1428.1(2009) Clause 8.2 to be white on a blue (Ultramarine) rectangle with no side more than 1200 mm in length. Symbol to be located in the centre of the car space at $500 \mathrm{~mm}-600 \mathrm{~mm}$ from its entry point.
b) The perimeter of the accessible parking area, inclusive of the adjacent shared area to be delineated in yellow. Additional diagonal line-marking to be provided within the shared area to further identify this area as vehicle-free; and
c) Diagonal line marking to be at angle of $45^{\circ} \pm 10^{\circ}$ to the side of the space, at $150 \mathrm{~mm}-200 \mathrm{~mm}$ in width with spaces of $200 \mathrm{~mm}-300 \mathrm{~mm}$ between stripes.

### 3.2 External Paths of Travel

3.2.1 An accessible path of travel is required from:
a) The main points of pedestrian entry at the allotment boundary to the building entrance (Fairley Street);
b) Another accessible building connected by a pedestrian link; and
c) The accessible car parking spaces to the building entrances.
3.2.2 Gradient and crossfall of external paths of travel not to exceed 1:40 (or 1:33 if bituminous seal).

Where the gradient exceeds 1:40, walkways with gradients up to 1:20 are permitted, constructed in accordance with Clause 10.2 of AS1428.1(2009).

Where the gradient exceeds 1:20, ramps must be provided in accordance with Clause 10.3 of AS1428.1(2009).
3.2.3 External paths of travel required to be accessible must achieve compliant widths, passing areas and turning spaces at dead ends:
a) Generally, minimum 1 m clear width is required clear of all obstructions.
b) Minimum $2 m$ head height clearance required throughout.
c) $1500 \mathrm{~mm} \times 1500 \mathrm{~mm}$ turning spaces are required where there is a $90^{\circ}$ change in direction required.
d) $1540 \mathrm{~mm} \times 2070 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ turning spaces are required where there is a $180^{\circ}$ change in direction required. This is also required within 2 m of the end all accessible paths of travel.
e) $1800 \mathrm{~mm} \times 2000 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ passing space required at intervals not more than 20 m where there is no direct line of sight.
3.2.4 Accessible paths of travel must have a slip-resistant surface and be traversable by people with a broad range of abilities (AS1428.1(2009) Clause 7.1). Appropriate surfaces include:
a) Concrete with abrasive finish;
b) Concrete with exposed aggregate finish
c) Bituminous concrete;
d) Natural stone with rough finish;
e) Paving bricks with abrasive finish.
3.2.5 A smooth transition is required between abutting surfaces. A construction tolerance of 3 mm for vertical differences is permitted, or 5 mm where edges are rounded or beveled.
3.2.6 Where a pedestrian area and vehicular zone is at grade, differentiation of vehicle and pedestrian zones by means of warning tactile ground surface indicators (TGSIs) and bollards, or combination is required. TGSIs to be setback 300 mm from the bollards.
3.2.7 Where applicable, any kerb ramps are to be constructed in accordance with Clause 10.7 of AS1428.1(2009), including:
a) A maximum rise of 190 mm ;
b) A length not greater than 1520 mm ;
c) A gradient not steeper than 1:8, located within or attached to a kerb.

### 3.3 Building Entrances

3.3.1 BCA Clause D3.2(b) requires for access to be provided through:
a) the principal pedestrian entrance; and
b) at least $50 \%$ of all pedestrian entrances; and
c) in a building with a floor area more than $500 \mathrm{~m}^{2}$ any non-accessible pedestrian entrances must be maximum 50 m distance from an accessible pedestrian entrance.
3.3.2 Where a pedestrian entrance required to be accessible has multiple doorways:
a) If the pedestrian entrance consists of not more than 3 doorways - not less than 1 of those doorways must be accessible; and
b) If a pedestrian entrance consists of more than 3 doorways - not less than $50 \%$ of those doorways must be accessible.
3.3.3 Pedestrian entrance doorways must achieve compliance with AS1428.1(2009) requirements, as outlined in Item 3.4 below.

### 3.4 Doorways

3.4.1 Any change in levels at doorways to be addressed via threshold ramp complying with AS1428.1(2009), which permits the following:
a) Change in level of up to 35 mm ;
b) Maximum gradient of $1: 8$;
c) Maximum length of 280 mm .

Note flush tracks are required for bi-fold doors and sliding doors.
3.4.2 Where the change in level exceeds 35 mm , a step ramp is to be provided - clear of the required door circulation space. Step ramps require the following:
a) Change in level of up to 190 mm ;
b) Maximum gradient of 1:10;
c) Maximum length of 1900 mm ;
d) 1200 mm landing required at the base of the step ramp (where there is no change in direction);
e) Sides of step ramp to be splayed, or provided with either a kerb or open balustrade. No TGSIs or handrails are required to a step ramp.
3.4.3 Doorways on continuous accessible path of travel to areas required to be accessible must achieve a minimum clear opening width of 850 mm . For a swing door, a 920 mm wide leaf can achieve this; and for a sliding door, the leaf width to achieve this is determined by the diameter of any door handles / controls.

Where double-leaf doors are proposed, the minimum 850 mm clear opening width applies to the single active leaf.
3.4.4 Doorways required to be accessible must achieve compliant door circulation spaces, as determined by the direction of approach of the user. Circulation spaces at doorways must not exceed a gradient and crossfall of 1:40
3.4.5 Successive doorways on continuous accessible paths of travel, e.g. of airlocks and vestibules, are required to achieve required minimum 1450 mm between doorways / door swing arcs.
3.4.6 For doorways required to be accessible, door controls are to comply with the following:
a) Pull and lever handles must be ' $D$ '-shaped, which prevent the hand of a person with grasping difficulties from slipping from the door handle, with $35 \mathrm{~mm}-45 \mathrm{~mm}$ finger clearance at the centre of the grip.
b) Door handles and related hardware to be located at $900 \mathrm{~mm}-1100 \mathrm{~mm}$ AFFL.
c) The design of door snibs and locks to accessible facilities are of a lever design with a length of minimum 45mm (measured from the centre of the spindle).
d) Provide manual door operating forces of no greater than 20 N to initially open the door, 20 N to hold the door open and to swing/slide the door no greater than 20N. Where environmental factors limit this, an automatic door operator must be provided.
3.4.7 Any security/access controls (including controls to internal automated doors and intercom systems) be located as per the following (AS1428.1(2009) Clause 13.5.3):
a) At a height between $900-1200 \mathrm{~mm}$ AFFL for controls that only need to be pushed;
b) At a height between $900-1250 \mathrm{~mm}$ AFFL for controls that only need to be touched;
c) At a level landing (not steeper than 1:40); and
d) Not closer than 500 mm to any internal corner.
e) Additionally, manual controls to automated doors shall be:
i) for a hinged door, located at $1000 \mathrm{~mm}-2000 \mathrm{~mm}$ from the swing door in any position,
ii) for a sliding door, within 2000 mm of the doorway and clear of the surface-mounted leaf in the open position.

### 3.5 Internal Paths of Travel

3.5.1 A continuous accessible path of travel or accessway must be provided to all spaces required to be accessible within the building, including achieving compliant widths, passing areas and turning spaces at dead ends (measurements to be clear of wall finishes and skirtings).
a) All accessways shall achieve minimum 1000 mm clear unobstructed width, and recommended 1500 mm width.
b) Points along accessways where a $60^{\circ}-90^{\circ}$ change in direction occurs are to achieve required clear space for turning, of minimum $1500 \mathrm{~mm} \times 1500 \mathrm{~mm}$ with a permitted splay of 500 mm to the internal corner (AS1428.1(2009) Figure 4).
c) Points along accessways where a $180^{\circ}$ change in direction occurs require a clear space for turning of minimum $1540 \mathrm{~mm} \times 2070 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L}$ ) within 2 m of the end of an accessway (BCA Clause D3.3(c)(ii)(A); AS1428.1(2009) Figure 5).
d) Passing spaces of $1800 \mathrm{~mm} \times 2000 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ complying with AS1428.1(2009) Figure 3 are to be provided at maximum 20 m intervals along accessways where a direct line of sight is not available (BCA Clause D3.3(d)).
3.5.2 The unobstructed height of a path of travel must be no less than 2000 mm , and 1980 mm at doorways. Where there is an overhead hazard with less than 2000 mm vertical clearance:
a) Provide a suitable physical barrier (minimum 450 mm high wall, kerbrail and handrail) to prevent inadvertent contact with hazard; or
b) Provide warning TGSIs to the border where the vertical clearance is reduced below 2000 mm , as per AS/NZS1428.4.1(2009) Clause 2.6.

NB - While the latter prescription is permitted for compliance with the BCA, the application of warning TGSIs will not make an unsafe environment safe. A physical barrier is preferred as in most cases it would be a more effective means to prevent human impact with overhead hazards resulting in injury.

### 3.6 Passenger Lifts

3.6.1 There is one proposed passenger lift located within Block A, which provides access to all storeys of the building. The passenger lift must comply with BCA Part E3.6, as per BCA Clause D3.3(b).
3.6.2 Fitout features are required to meet BCA E3.6 and AS1735.12(1999), which include:
a) Handrail complying with the provisions for a mandatory handrail in AS1735.12 (i.e. $30-50 \mathrm{~mm}$ diameter, 600 mm minimum width, $850-950 \mathrm{~mm}$ AFFL).
b) Lift car and landing control buttons complying with AS1735.12. Note that landing controls are to be located at least 500 mm from an internal corner or other fixed obstruction.
c) Minimum clear door opening width of 900 mm ;
d) Passenger protection system complying with AS1735.12.
e) Lighting in accordance with AS1735.12.
f) Emergency hands-free communication, including a button that alerts a call centre of a problem and a light to signal that the call has been received.

### 3.7 Walkways

3.7.1 Where walkways are proposed due to the natural topography of the site, the grades of walkway shall be no steeper than 1:20. If any steeper they will be constituted as ramps and therefore compliance with AS1428.1:2009 Clause 10.3 will be required.
3.7.2 Level landings are to be provided as follows:
a) At intervals along walkways at:
i) Maximum 15m for 1:20 gradient;
ii) Maximum 25m for 1:33 gradient; and
iii) For walkways in between 1:20 and 1:33, the maximum interval is determined by linear interpolation.
iv) Ensure walkways are not within required doorway level landings - see Marked Plans in Appendix A.
b) Spatially:
i) Where there is no change in direction, the landing must be minimum 1200 mm in depth;
ii) Where there is a $90^{\circ}$ turn involved, the landing must achieve minimum $1500 \mathrm{~mm} \times 1500 \mathrm{~mm}$ clear space and the internal corner of this space may be splayed 500 mm ;
iii) Where there is a $180^{\circ}$ turn involved, the landing must achieve minimum $1540 \mathrm{~mm} \times 2070 \mathrm{~mm}$ (W x L) clear space.
c) Note that level landings are also required where there are doorways, generally 1450 mm in depth, however this may vary depending on configuration of doorway.
3.7.3 Where the side of walkways do not abut a wall (of minimum 450 mm in height), the sides of a walkway shall be provided with a firm and level surface of a different material to that of the walkway extending 600 mm in width horizontally, be of the same grade as the walkway and follow the grade of the walkway.

Alternatively, it shall be provided with a suitable barrier - kerbrail and handrail, or minimum 450 mm high wall.

### 3.8 Ramps

3.8.1 Any proposed ramps are to be designed in accordance with Clause 10.3 of AS1428.1(2009).
3.8.2 Ensure all ramps (gradient $1: 14-1: 19$ ) comply with the following:
a) The maximum gradient of a ramp exceeding 1900 mm length is $1: 14$ (recommend designing to $1: 15$ to allow for some construction tolerance).
b) Provide minimum 1000 mm clear width ( 1200 mm is recommended) along the ramp. Where the ramp is curved, a minimum 1500 mm clear width is required.
c) Level landings are to be provided at maximum 9 m intervals for $1: 14$ gradient; 15 m for 1:20 gradient; and for ramps in between 1:14 and 1:20, the maximum interval is determined by linear interpolation.
3.8.3 Spatially, level landings (not steeper than $1: 40$ ) to be provided in accordance with the following:
a) Minimum 1200 mm deep landings where there is no change in direction;
b) Where there is a $90^{\circ}$ turn involved, minimum $1500 \mathrm{~mm} \times 1500 \mathrm{~mm}$ clear space to the landing and the internal corner of this space may be splayed 500 mm ;
c) Where there is a $180^{\circ}$ turn involved, minimum $1540 \mathrm{~mm} \times 2070 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ clear space to the landing.
3.8.4 Provide a handrail to both sides of ramps as per the following:
a) Handrail of $30 \mathrm{~mm}-50 \mathrm{~mm}$ diameter to be continuous throughout and be at a consistent height of $865 \mathrm{~mm}-1000 \mathrm{~mm}$ above the ramp and landings;
b) The cross-section of handrails shall be circular and have a diameter of not less than 30mm 50 mm for not less than $270^{\circ}$ around the uppermost surface;
c) At landings, handrails are to achieve minimum 300 mm horizontal extension past the edges of the ramp.
d) Handrails are to then terminate via turning down through an angle of $180^{\circ}$ for a minimum of 100 mm or be returned fully to the end post or wall face.
e) Note that any handrail extensions must not protrude into the door circulation spaces of any adjacent doors, or any perpendicular paths of travel.
3.8.5 Provide a kerbrail to both sides of ramp as per AS1428.1(2009) Clause 10.3(j), and must be vertically aligned with inner face of handrails (Figure 19).
3.8.6 Warning TGSIs to be placed at the top and bottom landings of the ramp, of 600 mm depth across the clear width of the ramp and set 300 mm back from the ramp. Where landings are less than 3000 mm in length, depth of TSGIs may be reduced to 300 mm depth. Where handrails are continuous to both sides of landings, TGSIs are not required.

### 3.9 Stairways

3.9.1 All stairways shall be designed to comply with AS1428.1(2009) Clause 11. They must be setback appropriately from intersecting paths of travel at landings so handrail extensions do no project into transverse pathways or general circulation spaces (AS1428.1(2009) Clause 11.1(b); Figure 26(B)).
3.9.2 Stair risers must be opaque (i.e. not open) (AS1428.1(2009) Clause 11.1(c)). Stair tread and riser dimensions must be provided in accordance with BCA Specification D2.13. Tread widths of $275 \mathrm{~mm}-$ 300 mm and riser heights of $150 \mathrm{~mm}-165 \mathrm{~mm}$ are preferred.
3.9.3 Nosing profile to comply with AS1428.1(2009) Figure $27(A) /(B)$, whereby stair nosings are not to project beyond the vertical face of the riser. The riser may be vertical or have a backwards splay of maximum 25mm (AS1428.1(2009) Clause 11.1(d)).
3.9.4 Provide a contrasting strip of $50-75 \mathrm{~mm}$ depth to tread nosings, with a minimum luminance contrast of $30 \%$ to the background (AS1428.1(2009) Clauses 11.1(f) \& (g)). The strip is to achieve a minimum slip resistance per Item 3.10.2.

NB - Where surface-mounted contrasting strips are proposed, ensure its profile (strip thickness) does not affect the maximum riser height dimension required under BCA Specification D2.13.
3.9.5 Provide a handrail to both sides of stairways as per the following:
a) Handrail to be continuous throughout and be at a consistent height of $865 \mathrm{~mm}-1000 \mathrm{~mm}$ above the nosing of the treads and landings;
b) The cross-section of handrails shall be circular and have a diameter of not less than 30mm 50 mm for not less than $270^{\circ}$ around the uppermost surface;
c) Minimum 50 mm clearance is required to adjacent surfaces / obstructions, with minimum 600 mm vertical clearance required above the top of the handrails;
d) At landings, handrails are to achieve the following extensions:
i) Transition to horizontal immediately past the top riser and extend for minimum 300 mm ; and
ii) Extend one tread width past the bottom riser parallel to the line of nosings, then transition to horizontal to extend for minimum 300 mm .
e) Handrails are to then terminate via turning down through an angle of $180^{\circ}$ for a minimum of 100 mm or be returned fully to the end post or wall face.

Stairways serving the stage and tiered seating where a singular handrail to stairs is proposed in lieu of handrails to either side of stairs will require a performance solution. This performance solution will be further developed as the design progresses.
3.9.6 Warning TGSIs to be placed at the top and bottom landings of the stairway, of 600 mm depth across the clear width of the stairway and set 300 mm back from the top and bottom riser. Where landings are less than 3000 mm in length, depth of TSGIs may be reduced to 300 mm depth.
3.9.7 Where the stairway is open below and head height clearance is less than 2 m , one of the following means of protection must be provided:
a) Enclose the area;
b) Compliant kerb or kerb rail and handrail to be provided; or
c) Warning tactile ground surface indicators set back 300 mm from the hazard and extending to all sides of the hazard zone.

### 3.10 Internal Finishes

3.10.1 The following requirements apply to internal floor finishes in areas required to be accessible:
a) Where carpet or any soft flexible materials are used as flooring material, the pile height or pile thickness is to be maximum 11 mm and the carpet backing to be maximum 4 mm thick.
b) Matting recessed within a continuous accessible path of travel to have a surface level difference to surrounding materials of maximum 3 mm for vertical and 5 mm for rounded or bevelled edges.
c) Grates to have openings of maximum 13 mm diameter and any slotted openings to be maximum 13 mm wide and orientated perpendicular to the dominant direction of travel.
3.10.2 Provide flooring materials details for review when available, including slip resistance ratings. In particular, note that ramp and stairs require the following minimum slip resistance ratings as per BCA Table D2.14:

| Application | Dry | Wet |
| :--- | :--- | :--- |
| Ramp steeper than 1:14 | P4 or R11 | P5 or R12 |
| Ramp steeper than 1:20 but not steeper than 1:20 | P3 or R10 | P4 or R11 |
| Tread or landing surface | P3 or R10 | P4 or R11 |
| Nosing or landing edge strip | P3 | P4 |

3.10.3 Doorways, specifically the door leaf, door frame and/or door jamb, must possess minimum 30\% luminance with the adjacent wall surface, for a minimum width of 50 mm .
3.10.4 A solid and non-transparent contrasting strip compliant with AS1428.1(2009) Clause 6.6 is required to be installed across the width of all frameless or fully glazed doors, sidelights and any glazing that are capable of being mistaken for a doorway or opening.
3.10.5 All switches/controls on accessways are to be at $900 \mathrm{~mm}-1100 \mathrm{~mm}$ AFFL and minimum 500 mm from internal corners, except where on the architrave on the latch-side.

Additionally, light switches within accessible sanitary facilities are to be rocker-action or toggle switch type, with a minimum $30 \mathrm{~mm} \times 30 \mathrm{~mm}$ dimension. Push pad switches are to have minimum 25 mm diameter.
3.10.6 Where required - integrated, discrete, and composite type TGSIs must achieve 30\%, 45\% and 60\% luminance contrast, respectively, against the background surface.

### 3.11 Unisex Accessible Sanitary Facilities

3.11.1 Accessible sanitary facilities must be provided in accordance with BCA Tables F2.4(a)\& F2.4(b) based on the class of building to which the sanitary facilities are associated with:

| Building Class | Minimum accessible unisex toilets to be <br> provided | Minimum accessible unisex <br> showers to be provided |
| :--- | :--- | :--- |
| Class 5 and 9- | Where clause F2.3 of the BCA requires <br> closet pans: <br> (a) 1 on every storey containing sanitary <br> compartments; and | Where clause F2.3 of the BCA <br> requires 1 or more showers, not |
| less than 1 for every 10 showers or |  |  |
| part thereof. |  |  |

It appears that a unisex accessible sanitary facility will be provided to each bank of toilet on all storeys of the building, this will meet the BCA requirements.
3.11.2 Ensure an even number of right- and left-handed facilities is achieved (BCA Clause F2.4(g)) where there is more than one unisex accessible sanitary facility provided.
3.11.3 Unisex accessible sanitary facilities must comply with AS1428.1(2009) Clause 15, and be of appropriate size and layout to achieve required circulation spaces for the doorway, WC pan, shower, and basin.
a) Ensure toilet pan achieves minimum $1900 \mathrm{~mm} \times 2300 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L}$ ) circulation space with a maximum 100 mm washbasin encroachment permitted (except if the washbasin is located on the side wall opposite the WC pan, where no encroachment is allowed).
b) Door circulation spaces shall be compliant with AS1428.1(2009) Figures 31 \& 32.
c) Ensure some allowance for construction tolerance and wall finishes.

For sanitary facilities containing a unisex accessible shower facility:
d) For the shower facility, a clear space of minimum $1600 \mathrm{~mm} \times 2350 \mathrm{~mm}(\mathrm{~W} \times \mathrm{L})$ is required - clear of toilet pan and washbasin fixtures and fittings. Where a fixture or wall is located within 1160 mm -1600 mm from the shower corner along the width, the circulation space must be increased in length to 2500 mm .
e) The grade of the floor within the shower area shall be 1:60-1:80 towards the floor waste; while the remainder of the floor within the facility is to be 1:80-1:100. Floor waste to be located 580 mm $\pm 25 \mathrm{~mm}$ from side wall, and $550 \mathrm{~mm} \pm 25 \mathrm{~mm}$ from rear wall.
3.11.4 All accessible facilities to be designed and constructed with appropriate selection and placement of fixtures and fittings which enable access by all users and meet the compliance requirements of AS1428.1(2009) Clause 15, including but not limited to the following:
a) WC pan to be provided with its centreline at $450 \mathrm{~mm}-460 \mathrm{~mm}$ from the side wall, and front edge of the pan at $800 \mathrm{~mm} \pm 10 \mathrm{~mm}$ from the rear wall;
b) WC pan seat to be at $460 \mathrm{~mm}-480 \mathrm{~mm}$ height and achieve minimum $30 \%$ luminance contrast to the pan, wall or floor;
c) Grabrails in accordance with AS1428.1(2009) Figure 42;
d) Toilet paper dispenser as per AS1428.1(2009) Figure 41;
e) Flushing control located as per AS1428.1(2009) Figure 40;
f) Backrest in accordance with Clause 15.2.4 of AS1428.1(2009);
g) Washbasin to be provided with appropriate knee / toe clearance and be located so that the top of the washbasin is $800 \mathrm{~mm}-830 \mathrm{~mm}$ AFFL;
h) A mirror to be located above or adjacent to the washbasin, extending from a height of maximum 900 mm , to minimum 1850 mm AFFL. Minimum width of mirror to be 350 mm ;
i) A shelf that is integrated with the basin as vanity top to be minimum 120 mm width by 300 mm 400 mm depth;
j) A coat hook is to be provided at $1200 \mathrm{~mm}-1350 \mathrm{~mm}$ AFFL, and minimum 500 mm from internal corners;
k) Operable component of soap dispenser, hand dryer etc. are to be located $900 \mathrm{~mm}-1100 \mathrm{~mm}$ AFFL and minimum 500 mm from an internal corner;
I) Baby change table to achieve minimum 720 mm clearance under table, while top of table in the open position is at maximum 820 mm AFFL. It must not encroach into any required circulation spaces in the closed position. Note that this must be achieved within B01 Consular unisex accessible toilet.
3.11.5 Accessible showers are to be provided with the following (but not limited to):
a) Height of shower seat to be $470 \mathrm{~mm}-480 \mathrm{~mm}$ AFFL;
b) Grabrails, shower head, wall outlet, lever tap and soap holder in accordance with AS1428.1(2009) Figures 47 \& 48;
c) Two (2) coat hooks are to be provided adjacent the folding shower seat, located 400 mm and 600 mm away from the edge of the shower seat, and at $1200 \mathrm{~mm}-1350 \mathrm{~mm}$ AFFL.

### 3.12 Sanitary Facilities for People with Ambulant Disabilities

3.12.1 Each bank of gender sanitary facilities associated with an accessible sanitary facility require a cubicle for people with ambulant disability - one within the Female toilets and one within the Male toilets, as per BCA Clause F2.4(c).
3.12.2 Doorways on continuous accessible path of travel to facilities for people with ambulant disability, must achieve a minimum clear opening width of 700 mm and a clear space of minimum $900 \mathrm{~mm} \times 900 \mathrm{~mm}$ to both sides of the door (AS1428.1(2009) Figure 34).
3.12.3 Layout of each ambulant toilet shall comply with AS1428.1(2009) Clause 16, including:
a) Cubicle width of $900 \mathrm{~mm}-920 \mathrm{~mm}$;
b) Clear space of $900 \mathrm{~mm} \times 900 \mathrm{~mm}$ in front of the WC pan, which shall have a standard projection of $610 \mathrm{~mm}-660 \mathrm{~mm}$ from the rear wall;
c) Clear space of $900 \mathrm{~mm} \times 900 \mathrm{~mm}$ to both sides of doorways on path of travel to ambulant cubicle.
3.12.4 Ambulant toilets are to be designed and constructed with appropriate selection and placement of fixtures and fittings which enable access by all users and meet the compliance requirements of AS1428.1(2009) Clause 16, including but not limited to the following:
a) WC pan to have standard projection of $610 \mathrm{~mm}-660 \mathrm{~mm}$ from the rear wall, and have a seat height of 460 mm - 480 mm AFFL;
a) ' $L$ '-shaped grabrails to both sides of the compartment;
b) Toilet roll holder within 300 mm from the front of the WC pan seat, above the seat to maximum 700mm AFFL;
c) Coat hook located at $1350 \mathrm{~mm}-1500 \mathrm{~mm}$ AFFL.

### 3.13 Hearing Augmentation

3.13.1 A hearing augmentation system must be provided where an inbuilt amplification system, other than one used for emergency warning system only, is installed.

Locations and details of the system will be reviewed as the design develops.
A performance solution may be developed to permit omission of hearing augmentation to areas of the school covered by the public address system only. It is noted however that a hearing augmentation listening system is still required to areas with inbuilt speakers used for learning and teaching purposes.
3.13.2 The hearing augmentation system(s) is to be one of the following:
a) An induction loop provided to not less than $80 \%$ of the floor area of the room or space served by the inbuilt amplification system; or
b) A system requiring the use of receivers or the like, being available to not less than $95 \%$ of the floor area of the room or space served by the inbuilt amplification system, and the number of receivers provided must not be less than those listed in the table below.

| Population | Number of Receivers Required |
| :--- | :--- |
| Up to 500 persons | 1 receiver for every 25 persons or part thereof, or 2 receivers, whichever <br> is the greater |
| More than 500 persons <br> and up to 1000 persons | 20 receivers plus 1 receiver for every 33 persons or part thereof in excess <br> of 500 persons |

### 3.14 Wheelchair Seating Spaces

3.14.1 Where fixed seating is provided (such as in the library, hall or COLA), wheelchair seating spaces complying with AS1428.1(2009) must be provided in accordance with the table below.

| Number of <br> fixed seats in a <br> room or space | Number of wheelchair seating spaces | Grouping and location |
| :--- | :--- | :--- |
| Up to 150 | 3 spaces | 1 single space; and 1 group of 2 spaces |
| 151 to 800 | 3 spaces plus 1 additional space for <br> each additional 50 Seats or part thereof <br> in excess of 150 seats | not less than 1 single space; and not <br> less than 1 group of 2 spaces; and not <br> more than 5 spaces in any other group |

### 3.15 Signage

3.15.1 Braille and tactile signage is required to be provided throughout any building required to be made accessible in accordance with BCA Specification D3.6 and AS1428.1(2009) and must identify:
a) Each sanitary facility;
b) Accessible unisex facilities and indicate whether the facility is suitable for left or right handed use;
c) Ambulant accessible sanitary facilities on the door of the cubicle;
d) Where an entrance is not accessible, directional signage to identify nearest accessible entrance;
e) Where a bank of sanitary facilities is not provided with an accessible sanitary facility, directional signage to identify nearest accessible sanitary facility;
f) A space with a hearing augmentation system;
g) Each door required by Clause E4.5 to be provided with an exit sign and state "Exit" and "Level" followed by the floor level number;
h) The latch operation device (i.e. manual controls to power-operated doors) not located on the door itself.

## 4. Additional Accessibility Recommendations

As detailed above, it is acknowledged that the Premises Standards are limited in scope, covering aspects of building compliance applicable under the BCA only.

The Premises Standards could address a broader range of accessibility issues including considerations to accessibility of outdoor areas, such as playgrounds, and the interior fit-out of buildings, including customer service areas, joinery, fixtures and fittings. As such, there are features which fall beyond the scope of the Standards which may be subject to the general complaints provisions of the DDA.

Jaz Building Consultants provides the following as a summary of additional accessibility issues to be addressed in order to reduce Client risk of attracting a discrimination complaint.

It is recommended that a further review be undertaken to identify the gaps in the design between the DDA and Premises Standards, including opportunities for providing accessibility features which extend beyond the scope of Premises Standards.

### 4.1 Paths of Travel

4.1.1 Consider providing a clear width of minimum 1500 mm to all main paths of travel to allow a wheelchair and ambulant person to pass ( 1800 mm preferred to allow two wheelchairs to pass). Consider providing a clear width on secondary paths of travel of minimum 1200 mm .

### 4.2 Carparking

4.2.1 Install vertical signage, incorporating the international symbol for access to indicate the extent of the accessible parking area for people with disabilities (AS/NZS2890.6(2009) Appendix A3 (b); AS 1428.2(1992) Clause 17.4 (a) Note 2).

### 4.3 Lighting

4.3.1 With consideration to AS1428.2(1992) Clause 19, consistent lighting levels should be provided throughout all areas (internal and external). Where lighting levels may be increased, this must occur gradually to enable sufficient time for a person's vision to adapt to changing lighting levels.

### 4.4 Internal Finishes

4.4.1 Consider providing $30 \%$ luminance contrast between wall and floor surfaces or introduction of 150 mm high skirting with contrast to each.
4.4.2 Consider selecting finishes to comply with HB198 Guide to the Specification and Testing of Slip Resistance of Pedestrian Surfaces.

| Area | BCA Reference | Mandatory <br> Requirement | Recommendation <br> (HB198(2014)) |
| :--- | :--- | :--- | :--- |
| External Pavements and Ramps |  |  |  |
| External ramps including sloping <br> driveways, footpaths, etc. under <br> 1:14, external sales areas (e.g. <br> markets), external carpark areas, <br> external colonnades, walkways, <br> pedestrian crossings, balconies, <br> verandas, carports, driveways, <br> courtyards and roof decks | D3.3 inter alia <br> AS1428.1: 2009 <br> Clause 7.1 | "Slip resistant <br> surface" | P4 or R11 |
| Offices, Schools | D3.3 inter alia <br> AS1428.1: 2009 <br> Clause 7.1 | "Slip resistant <br> surface" |  |
| Entries and access areas, <br> common areas of buildings, <br> internal lift lobbies <br> Wet area <br> Transitional area <br> Dry Area |  | P3 or R10 |  |

### 4.5 Reception

4.5.1 Consider providing accessible features to reception areas. The level of access would be dependent on the level of interaction intended, such as high level interaction, or minimal and verbal and visual interaction only.
Assuming a basic minimal level of interaction (verbal and visual only), consider the following:
a) Lower section of counter at a height between 830 mm - 870 mm AFFL, with a minimum width of 900 mm ;
b) Underside clearance below the accessible section of counter;
c) Surface of counter to have a matte or satin finish.

### 4.6 Staff Workstations

4.6.1 Consider providing height adjustable workstations that can be adjusted by the user are highly recommended, with an adjustment capability between 610mm and 760mm AFFL (AS4442(1997) Clause 2.2.2 (b)).
4.6.2 Consider providing accessible features for a portion of both fixed and loose workstations, including the following:
i) Bench/desktops at $830 \mathrm{~mm}-870 \mathrm{~mm}$ height AFFL, with a minimum width of 900 mm ;
j) Underside clearance below the accessible section of counter of minimum 720 mm ;
k) Surface of counter to have a matte or satin finish.

Further review shall be undertaken when joinery/furniture details are available.

### 4.7 Kitchen/Kitchenette Facilities

4.7.1 Facilities with a sink for use by occupants of the building should be designed with accessible componentry to a portion of the facilities, including:
a) A minimum clear floor space of $1540 \mathrm{~mm} \times 2070 \mathrm{~mm}$ that allows for wheelchair access and manoeuvring shall be provided at the sink and all appliances in the facility;
b) The sink and bench should be located at a height between $850 \mathrm{~mm}-870 \mathrm{~mm}$ AFFL;
c) The design should allow knee and foot clearance of a height of 720 mm under the sink, as per washbasin clearances;
d) Depth of main sink (if more than one) to be a maximum of 150 mm from top of bench;
e) Lever action tapware or sensor plate controls should be provided;
f) Operative parts of tapware to be within 300 mm from the front edge of sink and bench throughout the arc of the movement;
g) Hot water units shall be located on the bench within 300 mm from the front of the sink to allow for ease of operation;
h) Where hot water is provided, the water should be delivered via mixer (For water temperature see AS3500.4);
i) Any exposed water pipes should be insulated.
4.7.2 Drinking fountains should be provided as follows:
a) Top of fountain to be located at $800 \mathrm{~mm}-830 \mathrm{~mm}$ AFFL;
b) Provide open knee and foot clearance of 720 mm height under the unit, as per AS1428.1(2009) washbasin clearances;
c) Controls should be located centrally on the unit, operable by one hand with a force not exceeding 20N.

### 4.8 Seating

4.8.1 Where seating is provided, consider a proportion of accessible seating to be provided, incorporating the following features:
a) Seat height of $400 \mathrm{~mm}-450 \mathrm{~mm}$, with side arms that extend a further $260 \mathrm{~mm} \pm 40 \mathrm{~mm}$ in height and a back height of $750 \mathrm{~mm}-790 \mathrm{~mm}$;
b) When located outdoors, the top surface of seats should be angled appropriately (maximum slope of $100^{\circ}$ to $105^{\circ}$ ) to enable adequate water run-off;
c) A minimum radius of 30 mm should be provided to the front edge of the seat;
d) Heel space of at least 150 mm with a minimum width of 350 mm should be provided under seats to assist in rearward adjustment of feet when rising.

### 4.9 Egress for People with Disabilities

4.9.1 Emergency evacuation for people with disabilities is of utmost importance. Evacuation routes (accessible paths of travel) through the building must be provided and require appropriately located emergency evacuation signage and appropriate evacuation plans incorporating access for people with disabilities.

## 5. Performance Solutions

At this stage, the following performance solutions are proposed within the design:

| Performance <br> Clause | Deemed-to- <br> Satisfy Clause | Performance Solution |
| :--- | :--- | :--- |
| DP1, DP2 | D3.3 | A singular handrail to stairs serving the stage and tiered <br> seating, in lieu of handrails to either side of stairs. |
| DP9 | D3.7 | Omission of hearing augmentation to areas of the school <br> covered by the public address system only (Note that hearing <br> augmentation listening system is still required to areas with <br> inbuilt speakers used for learning and teaching purposes.) |

## 6. Conclusion

We have assessed the architectural documentation available to date and have reviewed the proposed building works. The documentations of the proposed building shall be developed in line with the spirit and intent of the DDA, Building Code of Australia 2019 Amendment 1 (BCA), and Australian Standards as they relate to access for people with disabilities. Access for people with disabilities shall be provided to and within the proposed building on an independent, functional and equal basis, to the degree necessary.

APPENDIX A
Marked Plans

1. Waste Pad
2. Main Switchboard Room
3. Main Switch
4. Existing Substation
5. Pumps / Meters
6. Plant with Screen
7. Bicycle Parking
8. Playing Field
9. Main School Sign
10. Electronic School Sign
11. Shade Structure
12. Secondary Entrance
13. S.E.L.U \& Secondary Entrance











