PHILIP CHUN
Building Compliance

Development Application Accessibility Review

Hunter Sports High School

2 Pacific Highway Gateshead NSW 2290

Report Prepared for: EJE Architecture
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ACCESS CONSULTING

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DOCUMENT ACCEPTANCE

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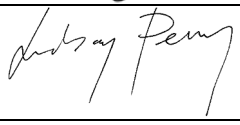
Reviewed by	Lindsay Perry *ACAA Accreditation No. 136*		14 January 2016

REVISION HISTORY

Revision No.	Prepared by	Description	Date
00	Lee-May Whong	DRAFT for comment	14 January 2016
01	Lee-May Whong	Issue for DA	28 January 2016

This report has been prepared based on the available time allocated to conduct the review, and all reasonable attempts have been made to identify key compliance matters pursuant to the BCA and additional issues which have been deemed an impediment to access provision and may increase Client risk of attracting a complaint under the DDA.

The information provided within this report is relevant to this project and the documentation referenced. As such the information provided may not be transferred to other projects. This report must not be issued for public comment or be used for any other purpose without prior permission from Philip Chun Access.

Philip Chun Access accepts no responsibility for any loss suffered as a result of any reliance upon such assessment or report other than providing guidance to alleviate access barriers in the built environment and reduce Client risk of attracting a complaint under the DDA.

1. INTRODUCTION

This report documents a comprehensive 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 by Philip Chun Access with the aim of providing reasonable recommendations in regards to access to premises. Philip Chun Access has endeavoured to clearly identify each issue of concern with respect to the building element and with reference to relevant legislation and guidelines.

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

1.1 Site and Contexts

The site is located at Pacific Highway, Gateshead. Site gradient slopes away from Pacific Highway on the eastern boundary towards Johnsons Creek along the western and southern boundaries. Vehicular and pedestrian entrances to the site are from Pacific Highway.

The project consists of the redevelopment and upgrading of an existing sports high school. The development is proposed over two stages.

1.2 Reviewed Documentation

This report is based upon the following design documents produced by EJE Architects for Philip Chun Access review.

Document No	Title	Revision
11029 – SK A005	Overall and Part Site Plans	H
11029 – SK A010	Detail Site Plan	I
11029 – SK A021	Milestone 1	C
11029 – SK A024	Milestone 4	C
11029 – SK A025	Milestone 5	C
11029 – SK A027	Milestone 7	C
11029 – SK A028	Milestone 8	B
11029 – SK A100	Ground Floor Plan	O
11029 – SK A200	First Floor Plan	P
11029 – SK A300	Second Floor Plan	L
11029 – SK A500	Elevation pg 1 of 2	F
11029 – SK A501	Elevation pg 2 of 2	F
11029 – SK A600	Sections pg 1 of 2	B
11029 – SK A601	Sections pg 2 of 2	A
11029 – SK A900	Renders pg 1 of 2	A
11029 – SK A901	Renders pg 2 of 2	A

1.3 Methodology

Philip Chun Access aims to provide achievable recommendations related to the provision of access to premises based on current legislation and best practice options, enabling independent, equitable and functional access for all.

Accessibility is paramount in providing an inclusive environment for all users. Phillip Chun Access looks beyond basic compliance issues to ensure that all users are offered the opportunity to participate in society. We incorporate the principles of Universal Design into all of our work, taking a holistic approach in the provision of access for people with disabilities.

This report should be read in conjunction with the attached marked plans, included as Appendix A. which should be read in conjunction with the subsequent sections of this report.
With regards to notations included within Appendix A, please note:

- All items notated in **red** relate to mandatory requirements under the BCA, and Premises Standards;

- All items notated in **blue** relate to additional, enhanced recommendations provided in accordance with the spirit and intent of the DDA. These items are provided for Client consideration.

The following key has been implemented to identify areas requiring attention by the design team and/or further discussion to ensure an independent, equitable and functional access for all:

Identification of accessible areas, including accessible car parking.
- Accessible car parking spaces designed per AS/NZS 2890.6 (2009).

Identifies locations where a change in level appears to exist and/or requires clarification, such as:
- Ramps (proposed gradients); and
- Stairways (other than fire-isolated) used for public/staff communication.
- All ramps must be designed per AS 1428.1 (2009);
- All stairways must be designed per AS 1428.1 (2009).

Denotes accessible sanitary facilities, including:
- Designated accessible sanitary facilities; and
- Locations where sanitary compartments for people with ambulant disabilities must be provided to meet the BCA / Premises Standards.
- Circulation space and fixture placement per AS 1428.1 (2009) must be accommodated.

Identifies elements where joinery documentation is required for review, including:
- Servery counters;
- Consider incorporating access for people with disabilities, such as a lower section of counter with appropriate knee and foot clearance.

Identification of doorways which appear to lack appropriate circulation to permit independent access by people with disabilities.
- Further review required to ensure all doors to areas required to be accessible possess sufficient circulation space.

2. LEGISLATION

2.1 Building Code of Australia

The primary classification for the proposed buildings pursuant to the BCA is a Class 9b, being a secondary school.

Level	Proposed Use	Building Classification
Ground, First and Second Floor	High School	Class 9b

Part D3 of the BCA and Premises Standards prescribes the minimum requirement for access to a building. Access for people with disabilities is required through the principal pedestrian entrance and throughout the building in accordance with Table D3.1.The following table outlines the general building access requirements for this project:

Class of building	Access requirements
Class 9b	
Schools and *early childhood centres*	To and within all areas normally used by the occupants

2.2 Disability Discrimination Act 1992 (Cth) (DDA)

The accessibility assessment process covers all aspects of the infrastructure (premises), to the extent required to meet the objectives of the Disability Discrimination Act 1992 (Cth), including, however not limited to, Section 23 which relates to access to premises and facilities which the public may enter or use.

The Act is enforced primarily through a complaints mechanism, which allows individuals who have directly or indirectly experienced unlawful discrimination to seek a conciliated outcome through the Australian Human Rights Commission and, in the instance of unsuccessful conciliation, to bring an action in the Federal Magistrates Court or the Federal Court of Australia.

2.3 Access to Premises Standards – General

In contrast to building regulations, the DDA is not prescriptive. The implementation of the Premises Standards in 2010, and corresponding changes to the BCA, is a significant step towards achieving equal access to premises and is crucial to justice and social inclusion for people with disabilities.

It is noted that the Premises Standards are limited in scope, covering aspects of building compliance applicable under the BCA. It is acknowledged that the Premises Standards could address a broader range of accessibility issues including considerations to accessibility of parkland, playgrounds, transport vehicles, interior fit-out of buildings, and 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.

2.4 Access to Premises Standards – New Work

Where new work that requires building or construction approval is undertaken on an existing building, such as an extension or refurbishment, there is a requirement to ensure the new or modified part of the building complies with the Premises Standards.

2.5 Access to Premises Standards – Affected Part

In addition to the new work requirement, there is a requirement to provide an accessible path of travel from the principal public entrance, to the new or modified part of an existing building. This is referred to as the 'affected part' of a building (Subsection 2.1(5) of the Premises Standards).

Areas outside of the new work and the affected part work do not have any access requirements imposed by the Premises Standards but these areas will continue to be subject to the general complaints framework of the DDA

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2.6 Access to Premises Standards – Lessee Concession

Section 4.3 provides a limited concession for applications by some lessees from upgrading affected part paths of travel to the new work that are outside of the lease.

Where the building is occupied by a number of lessees (2 or more), and an application for approval is made by one of the lessees for work on the area of the building that they lease, there is no requirement for the lessee (or any other person) to provide a continuous accessible path of travel to the area of new work which the person leases outside of their leased area.

The concession recognises that the lessee generally has limited control over those parts of a building which they do not lease, such as the common areas of the building. If the building is leased by a single lessee, there is a requirement for the lessee to ensure the necessary modifications are undertaken to the 'affected part'. If the application for approval is made by the owner of the building, regardless of the number of lessee within the building, there is a requirement to upgrade the 'affected part'.

2.7 Access to Premises Standards – Lift Concession

Under Section 4.4 of the Premises Standards, there is a concession from the requirements of Table E3.6 (b), which do not apply to an existing passenger lift that is in a new part, or an affected part of a building if the lift:

- Travels more than 12m; and
- Has a lift floor of not less than 1100mm (width) x 1400mm (depth)

All other access features within the lift, including however not limited to the control panel, audible information, lift landing controls and handrail, must be provided and are not subject to the concession.

2.8 Access to Premises Standards – Toilet Concession

Section 4.5 of the Premises Standards includes a concession for existing accessible sanitary facilities, stating that certain existing accessible sanitary facilities located within a 'new or modified part' or an 'affected part' are not subject to upgrade if, the existing facility complies with the circulation and fit-out requirements of AS 1428.1 (2001).

3. COMPLIANCE SUMMARY

We have assessed the architectural documentation available to date and have reviewed the proposed building works with respect to the Building Code of Australia 2015 and Premises Standards. The design is at a point where the inherent BCA philosophies have been checked and Development Consent can be sought. The finer details with respect to BCA 2015 compliance can be finalised prior to the issue of a Construction Certificate.

Item	Description	Compliant			Comments
		Yes	No	TBC	
Access and Approach					
4.1	Approach from Allotment Boundary	•			Subject to recommendations included within this report being implemented during construction.
4.2	Approach from Accessible Carparking				N/A
4.3	Approach Between Buildings	•			Subject to recommendations included within this report being implemented during construction.
4.4	Accessible Car Parking			•	Car parking as existing. No existing accessible car park on site indicated.
4.5	Building Entrance	•			Subject to recommendations included within this report being implemented during construction.
Accessibility Provisions – Internal Areas					
5.1	Internal Paths of Travel	•			Subject to recommendations included within this report being implemented during construction.
5.2	Floor Finishes			•	
5.3	Internal Doors			•	
5.4	Exemptions			•	
5.5	Signage			•	
5.6	Hearing Augmentation			•	
5.7	Tactile Indicators			•	
5.8	Wheelchair Seating			•	
5.9	Glazing on an Accessway			•	
5.10	Slip Resistance			•	
5.11	Thresholds			•	
Vertical Circulation					
6.1	Passenger Lifts	•			Subject to recommendations included within this report being implemented during construction.
6.2	Accessible Ramps	•			Subject to recommendations included within this report being implemented during construction.
6.3	Stairs	•			Subject to recommendations included within this report being implemented during construction.
6.4	Fire Isolated Stairs				N/A. None provided
Sanitary Facilities					
7.1	Unisex Accessible Toilet	•			Subject to recommendations included within this report being implemented during construction.
7.2	Unisex Accessible Shower	•			Subject to recommendations included within this report being implemented during construction.
7.3	PAD Cubicles			•	We recommend this be addressed during subsequent design stages.
Additional Accessibility					
8	Additional Accessibility Considerations				Not mandatory but highly recommended.

4. ACCESS AND APPROACH - EXTERNAL AREAS

There are two existing carparking areas. The entry to the carpark adjacent to the Forecourt remains as existing. The entry to the second car park and existing service road incorporates a new drop off zone and new vehicle entrance. Pedestrian paths with ramps and stairs incorporated have been provided throughout the development. Both vehicular and pedestrian entrances are accessed from Pacific Highway.

4.1 Approach from the Allotment Boundary (BCA Part D3.2)

The BCA requires that a continuous accessible path of travel within the meaning of AS1428 .1 (2009) be provided from the allotment boundary at the main points of pedestrian entry to the main entrance.

Approach from the allotment boundary has been provided for. Drawings indicate that a formed footpath with areas conducive to an accessible path of travel has been provided from the allotment boundary to the building entrance. Refer to Appendix B for compliance requirements regarding pathways, ramps and walkways.

4.2 Approach from the Accessible Carparking (BCA Part D3.2)

The BCA requires that a continuous accessible path of travel within the meaning of AS1428.1 (2009) be provided from the accessible carparking areas to the main entrance.

Car parking provisions remains as existing, no accessible carparks has been identified. Drawings indicate that a formed footpath with areas conducive to an accessible path of travel has been provided from the carparking area (adjacent to the entry court) to the building entrance. Refer to Appendix B for compliance details.

4.3 Approach between Buildings on Site (BCA Part D3.2)

The BCA requires that a continuous accessible path of travel within the meaning of AS1428.1 (2009) be provided between associated accessible buildings.

Approach between buildings has been provided for. Drawings indicate that a formed footpath with areas conducive to an accessible path of travel has been provided between accessible buildings on the site. Refer to Appendix B for compliance details.

4.4 Accessible Carparking (BCA Part D3.5)

Accessible carparking, designed and constructed in accordance with AS 2890.6 (2009), is required to be provided as per the below ratio:

Class of building to which the Class 7a building or carparking area is associated	Number of accessible carparking spaces required
Class 9b	
(a) School	1 space for every 100 carparking spaces or part thereof.

There are a total of 51 existing carparking spaces provided on site, car parking spaces remains as existing, no accessible car parking spaces have been identified in both carparking areas. There are no requirements for the provisions of accessible parking as the parking areas fall outside of the new work and do not have any access requirements imposed by the Premises Standards. However these areas continue to be subjected to the general complaints framework of the DDA. We recommend the provision of accessible parking where possible. Refer to Appendix B for compliance requirements.

4.5 Building Entrance (BCA Part D3.2)

A continuous, accessible path of travel must be provided through the principal pedestrian entrance and not less than 50% of all pedestrian entrances / exits.

Where the total floor area of the building exceeds 500m2, therefore the distance of travel between accessible and inaccessible entrances must not exceed 50m.

Where a door required to be accessible has more than one door leaf, one of the leaves must have a clear opening of 850mm.

A continuous path of travel has been provided to the entrances of each of the buildings. At the development application stage, door sizes and door circulation areas have not been indicated on the drawings. We recommend that the abovementioned items be addressed during subsequent design stages.

5. ACCESSIBILITY PROVISIONS – INTERNALS AREAS

For the purposes of this report, the internal areas of the new building works have been reviewed. Fit-out of the existing buildings within the development does not form a part of this access report.

5.1 Internal Paths of Travel Generally (BCA Part D3.3)

BCA Part D3.3 requires that accessways complying with AS 1428.1 (2009) must be provided to and throughout areas of buildings required to be made accessible, including:

- Minimum corridor widths of not less than 1000mm;
- Passing spaces with a minimum width of 1800mm and minimum length of 2000mm to be provided in corridors at maximum 20m intervals where a direct line of sight is not available; and
- Turning spaces of minimum 1540mm width and minimum 2070mm length to be provided within 2m of the end of corridors and at maximum 20m intervals.

Note: a passing space may serve as a turning space.

Increased landings are required at changes of direction, including 1500mm x 1500mm turning spaces to facilitate a 60-90 degree turn.

Drawings indicate that sufficient areas are provided for circulation purposes and appear capable of offering compliance.

5.2 Floor Finishes / Surfaces (BCA Part D3.3)

The following applies to interior finished and surface materials, in keeping with AS1428.1 (2009):

- Where carpet or any soft flexible materials are used as flooring material, the pile height or pile thickness is to be no greater than 11mm and the carpet backing to be not more than 4mm thick.
- Matting recessed within a continuous accessible path of travel to have a surface level difference to surrounding materials not more than 3mm for vertical and 5mm for rounded or bevelled edges.
- Grates are to have openings no greater than 13mm in diameter and any slotted openings to be no more than 13mm wide and orientated perpendicular to the dominant direction of travel.

At the development application stage, floor finishes have not been indicated on the drawings. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

5.3 Internal Doors

Doors and doorways to be provided with the following circulation clearances as per AS 1428.1 (2009):

Table 5.3(a) – Hinged Door Requirements

Door Approach	Door opening direction	Clearances (mm)		
		Latch side	Hinge side	Depth in front of door
Front	Towards occupant	530	110	1450
	Away from occupant	510	-	1450
Latch Side	Towards occupant	900	110	1670
	Away from occupant	660	240	1240
Hinge Side	Towards occupant	900	660	1670
	Away from occupant	340	560	1220
Either Side	Towards occupant	900	660	1670
	Away from occupant	660	560	1240

Table 5.3(b) – Sliding Door Requirements

Door Approach	Clearances (mm)		
	Latch side	Slide side	Depth in front of door
Front	530	-	1450
Slide Side	395	660	1280
Latch Side	660	185	1230
Either Side	660	660	1280

Note: the above clearances are based upon an unobstructed door opening of 850mm, which is the minimum required clearance. Unobstructed door openings greater than 850mm will have different requirements. This will be reviewed upon provision of a door schedule and detailed architectural drawings.

Where a door required to be accessible has more than one door leaf, one of the leaves must have a clear opening of 850mm.

The distance between successive doors within airlocks, vestibules and the like require a minimum 1450mm depth between swing doors, 900mm for the path of travel to ambulant toilet cubicles.

At the development application stage, door sizes and door circulation areas have not been indicated on the drawings. We recommend that the abovementioned items be addressed during subsequent design stages.

5.4 Exemptions (BCA Part D3.4)

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).

Please advise if exemptions are to be sought from relevant Building Certifier.

5.5 Signage (BCA Part D3.6)

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:

- Each sanitary facility
- Any space with a hearing augmentation system
- Accessible unisex facilities and indicate whether the facility is suitable for left or right handed use
- Ambulant accessible sanitary facilities on the door of the cubicle
- Where an entrance is not accessible, directional signage to identify nearest accessible entrance
- Where a bank of sanitary facilities is not provided with an accessible sanitary facility, directional signage to identify nearest accessible sanitary facility.
- Each door required by Part E4.5 to be provided with an exit sign and state “Exit” and “Level” followed by either the floor level number, the floor descriptor or combination of these.

At the development application stage, signage details have not been indicated on the drawings. We recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

5.6 Hearing augmentation (BCA Part D3.7)

A hearing augmentation system must be provided where an inbuilt amplification system is provided, other than one used for emergency purposes only as required by BCA Part D3.7.

Further, for buildings that are required to be accessible, the BCA (Part D3.7) requires hearing augmentation systems at service counters **where the user is screened from the service provider.**

Note: Consideration to the design specifications of AS 1428.5 (2010) is recommended, however is not mandatory to meet the Premises Standards.

If required by the BCA, we recommend that hearing augmentation be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

5.7 Tactile indicators (BCA Part D3.8)

Where a building is required to be made accessible, BCA Part D3.8 requires that tactile indicators must be provided, in accordance with AS1428.4.1 (2009) to:

- A stairway
- A ramp, other than kerb ramp
- Any overhead obstruction less than 2m above the FFL, other than a doorway, where a suitable barrier has not been provided
- Where an accessway meets a vehicular way in the absence of a kerb or kerb ramp

Tactile indicators will be required at the top and bottom of accessible ramps (external areas of the building); at the top and bottom of communication stairs; at carpark entrances and where the pedestrian accessways meet the vehicular way.

At the development application stage, tactile indicators have not been indicated on the drawings. We recommend that this item be addressed during subsequent design stages.

5.8 Wheelchair seating spaces in Class 9b assembly buildings (BCA Part D3.9)

Wheelchair seating areas are required to be provided within Class 9b assembly buildings as per BCA Part D3.9 and in accordance with AS1428.1 (2009).

Number of fixed seats in a 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 each additional 50 Seats or part thereof in excess of 150 seats	not less than 1 single space; and not less than 1 group of 2 spaces; and not more than 5 spaces in any other group
801 to 10 000	16 spaces plus 1 additional space for each additional 100 seats or part thereof in excess of 800 seats	not less than 2 single spaces; and not less than 2 groups of 2 spaces; and not more than 5 spaces in any other group; and the location of spaces is to be representative of the range of seating provided
More than 10 000	108 spaces plus 1 additional space for each additional 200 seats or part thereof in excess of 10 000 seats	not less than 5 single spaces; and not less than 5 groups of 2 spaces; and not more than 10 spaces in any other group; and the location of spaces is to be representative of the range of seating provided

Details of wheelchair seating spaces have not been provided at this stage of the design process. We recommend that this item be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

5.9 Glazing on an accessway (BCA Part D3.12)

BCA Part D3.12 requires that where full height glazing that can be mistaken for an unobstructed opening is provided along an accessway, the glazing must be provided with visual identification as per AS 1428.1 (2009).

At the development application stage, glazing details have not been indicated on the drawings. We recommend that this item be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

5.10 Slip Resistance (BCA Part D2.14)

Landings in a stairway must have:

(a) a surface with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586; or
(b) a strip at the edge of the landing with a slip-resistance classification not less than that listed in Table D2.14 when tested in accordance with AS 4586, where the edge leads to a *flight* below

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

At the development application stage, slip resistance requirements have not been addressed. We recommend that this item be addressed during subsequent design stages.

5.11 Thresholds (BCA Part D2.15)

The threshold of a doorway must not incorporate a step or ramp at any point closer to the doorway than the width of the door leaf unless:

(a) in patient care areas in a Class 9a health-care building, the door sill is not more than 25 mm above the finished floor level to which the doorway opens; or
(b) in a Class 9c aged care building, a ramp is provided with a maximum gradient of 1:8 for a maximum height of 25 mm over the threshold; or

NSW D2.15 (d) and (e):

(c) in a building required to be accessible by Part D3, the doorway
  (i) opens to a road or open space; and
  (ii) is provided with a threshold ramp or step ramp in accordance with AS 1428.1 (2009); or

(d) in other cases
  (i) the doorway opens to a road or open space, external stair landing or external balcony; and
  (ii) the door sill is not more than 190 mm above the finished surface of the ground, balcony, or the like, to which the doorway opens.

At the development application stage, threshold details have not been indicated on the drawings. We recommend that this item be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

6. VERTICAL CIRCULATION

Lifts and stairs provide the main access between levels of the building.

6.1 Passenger Lifts (BCA Part E3)

Every passenger lift in an accessible building must be suitable for use by people with a disability and offer compliance with AS1725.12. Typically, the following dimensions are required to be provided:

Lift dimensions

- Lift floor dimensions of not less than 1100 x 1400mm for lifts which travel not more than 12m.
- Lift floor dimensions of not less than 1400 x 1600mm for lifts which travel more than 12m.

Lifts are provided for in two locations for access to the upper levels. The area proposed for the lifts offers a floor area conducive to compliance. We recommend that further lift details be addressed during subsequent design stages. Refer to Appendix B for further compliance requirements.

6.2 Accessible Ramps (BCA Part D3.3 & D3.11)

All accessible ramps must be designed and constructed in accordance with AS 1428.1 (2009) Clause 10 and include the provision of handrails, handrail extensions and tactile indicators. The maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient).

On an accessway:

a) a series of connected ramps must not have a combined vertical rise of more than 3.6m, and
b) a landing for a step ramp must not overlap a landing for another step ramp or ramp.

Ramps are provided for external to the building. The proposed configuration of the ramps appears to be conducive to compliance. At the development application stage, ramp details have not been indicated on the drawings. We recommend that details be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

6.3 Stairs (BCA Part D3.3)

All stairways, excluding fire-isolated stairs, must be designed and constructed in accordance with AS 1428.1 (2009) Clause 11 and include the provision of handrails, handrail extensions, opaque risers, contrasting nosing strips and tactile indicators.

Further to this, it is recommended that fire-isolated stairways proposed to be used as a means of general communication between floors should meet these enhanced requirements for the safety of all occupants.

Stairs have been provided for access adjacent to the lifts. Stair details have not been indicated at this stage of the design process. We recommend that this be addressed during subsequent design stages. Refer to Appendix B for further compliance requirements.

6.4 Fire Isolated Stairs (BCA Part D3.3)

All fire-isolated stairways must possess luminance contrast to the stair nosing as per AS 1428.1 (2009) Clause 11.1(f) and (g).

Fire isolated stairs have not been provided. If required, we recommend that the abovementioned items be addressed during subsequent design stages. Refer to Appendix B for compliance requirements.

7. SANITARY AND OTHER FACILITIES

7.1 Unisex Accessible Toilets (BCA Part F2)

Accessible unisex sanitary compartments must be provided in accessible parts of the building in accordance with Table F2.4 (a). That is:

Class of building	Minimum accessible unisex sanitary compartments to be provided
Class 5, 6, 7, 8 and 9 — except for within a ward area of a Class 9a *health-care building*	Where Part F2.3 of the *BCA* requires closet pans: (a) 1 on every *storey* containing *sanitary compartments*; and (b) where a *storey* has more than 1 bank of *sanitary compartments* containing male and female *sanitary compartments* at not less than 50% of those banks

Design

- An accessible unisex sanitary compartment must contain a closet pan, washbasin, shelf or bench top and adequate means of disposal of sanitary towels.
- The circulation spaces, fixtures and fittings of all accessible sanitary facilities must comply with the requirements of AS1428.1.
- Where two or more of each type of accessible unisex sanitary facility are provided, the number of left and right handed mirror image facilities must be provided as evenly as possible.
- The door to a fully enclosed sanitary compartment must:
  (i) Open outwards; or
  (ii) Slide; or
  (iii) Be readily removable from the outside of the sanitary compartment.

  Unless there is a clear space of at least 1.2m measured in accordance with Figure F2.5, between the closet pan with the sanitary compartment and the doorway.

Location

- An accessible sanitary facility must be located so that it can be entered without crossing an area reserved for one sex only.
- Where male sanitary facilities are provided in a separate location to female sanitary facilities, accessible unisex sanitary facilities are only required at one of these locations.

Accessible unisex sanitary facilities are required. The following unisex accessible sanitary facilities have been provided:

- *On the ground floor: an Access WC/Shower adjacent to the Gymnasium; accessible sanitary facility adjacent to the Girls and Boys toilets in Food Tech; and an accessible sanitary facility adjacent to Stage Two General Learning space.*
- *On the first floor: an Access Shower/WC in the Admin building; an Accessible Shower/WC and Accessible Shower/Change adjacent to the Multipurpose Space; and two Accessible Sanitary facilities have been provided in the Library.*
- *On the second floor: an Access WC is provided adjacent to the Staff Study Area.*

General arrangements of fixtures have not been indicated on the drawings at this development application stage. We recommend that this be addressed during subsequent design stage. Refer to Appendix B for compliance requirements.

7.2 Unisex Accessible Showers (BCA Part F2)

Accessible unisex showers must be provided in accordance with Table F2.4 (b). That is:

Class of building	Minimum accessible unisex showers to be provided
Class 5, 6, 7, 8 and 9 — except for within a ward area of a Class 9a *health-care building*	Where Part F2.3 of the *BCA* requires 1 or more showers, not less than 1 for every 10 showers or part thereof.

Where showers are provided within the development, a unisex accessible shower is required. The following accessible showers have been provided:

- *On the ground floor: an Access WC/Shower adjacent to the Gymnasium; accessible sanitary facility adjacent to the Girls and Boys toilets in Food Tech; and an accessible sanitary facility in Stage Two General Learning.*
- *On the first floor: an Access Shower/WC in the Admin building; and an Accessible Shower/WC and Accessible Shower/Change adjacent to the Multipurpose Space.*

General arrangements of fixtures and sizes have not been indicated on the drawings at this development application stage. We recommend that this be addressed during subsequent design stage. Refer to Appendix B for compliance requirements.

7.3 Sanitary compartments for people with an ambulant disability (BCA Part F2)

At each bank of toilets where there are one or more toilets are provided in addition to an accessible unisex sanitary compartment at that bank of toilets, a sanitary compartment suitable for people with an ambulant disability (PAD) must be provided for use by males and females.

Design of the cubicles is to include the following:

- PAD cubicles within male and female toilets to be in compliance with AS1428.1 (2009).
- Width of PAD cubicles is to be 900–920mm.
- Provide grabrails to PAD cubicles.
- Provide 900 x 900mm circulation space in front of pan and each side of doors on path to the toilet. Doors are not to swing into circulation spaces.

PAD cubicles are required at each bank of toilets in addition to an accessible unisex sanitary compartment. The following PAD cubicles are required:

- *On the ground floor: PAD cubicles are required at the bank of toilets adjacent to the Gymnasium and has been provided for (Ambulant WC); PAD cubicles are required to the Girls and Boys toilets in Food Tech; and also to the Stage Two Male and Female toilets adjacent to Stage Two General Learning space.*
- *On the first floor: PAD cubicles are required in the Girls and Boys Toilets in the Library.*
- *On the second floor: PAD cubicles are required adjacent to the Staff Study Area.*

We recommend that PAD cubicle requirements be addressed during further design stages. Refer to Appendix A Marked Plans for details and Appendix B for compliance requirements.

8. ADDITIONAL ACCESSIBILITY CONSIDERATIONS

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

Philip Chun Access provides the following as a summary of additional accessibility issues that can be addressed in order to reduce Client risk of attracting a discrimination complaint. Refer to Appendix C for specific requirements

- Fire Egress for People with Disabilities
- Accessible Reception/Service Counters
- Seating in Public Areas
- Signage and Wayfinding
- Depth of Door Recess
- Workstations
- Kitchen / kitchenette facilities
- Luminance Contrast
- Lockers
- Furniture Hardware
- Lighting and Glare

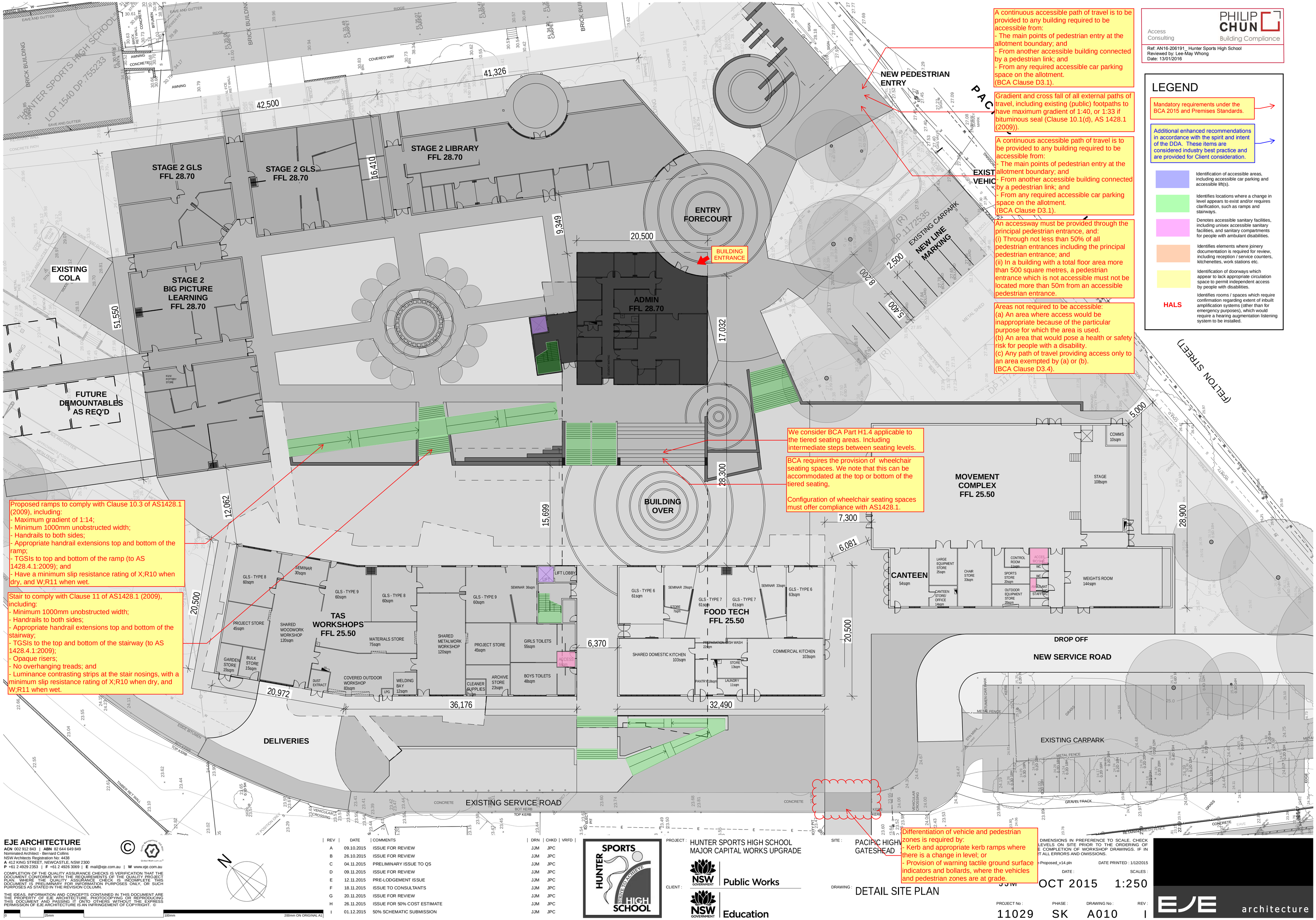
9. CONCLUSION

We have assessed the architectural documentation available to date and have reviewed the proposed building works with respect to the Building Code of Australia 2015 and Premises Standards. The design is at a point where the inherent BCA philosophies have been checked and development consent can be sought. The finer details with respect to BCA 2015 compliance can be finalised prior to the issue of a Construction Certificate.

The proposed development is capable of achieving a high level of access for people with disabilities and meeting all the relevant standards. The design documentation is considered to be compliant once constructed if our recommendations within this report are incorporated.

APPENDIX A

MARKED PLANS



A continuous accessible path of travel is to be provided to any building required to be accessible from:
- The main points of pedestrian entry at the allotment boundary; and
- From another accessible building connected by a pedestrian link; and
- From any required accessible car parking space on the allotment.
(BCA Clause D3.1).

Gradient and cross fall of all external paths of travel, including existing (public) footpaths to have maximum gradient of 1:40, or 1:33 if bituminous seal (Clause 10.1(d), AS 1428.1 (2009)).

A continuous accessible path of travel is to be provided to any building required to be accessible from:
- The main points of pedestrian entry at the allotment boundary; and
- From another accessible building connected by a pedestrian link; and
- From any required accessible car parking space on the allotment.
(BCA Clause D3.1).

An accessway must be provided through the principal pedestrian entrance, and:
(i) Through not less than 50% of all pedestrian entrances including the principal pedestrian entrance; and
(ii) In a building with a total floor area more than 500 square metres, a pedestrian entrance which is not accessible must not be located more than 50m from an accessible pedestrian entrance.

Areas 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).
(BCA Clause D3.4).

We consider BCA Part H1.4 applicable to the tiered seating areas. Including intermediate steps between seating levels.

BCA requires the provision of wheelchair seating spaces. We note that this can be accommodated at the top or bottom of the tiered seating,

Configuration of wheelchair seating spaces must offer compliance with AS1428.1.

Proposed ramps to comply with Clause 10.3 of AS1428.1 (2009), including:
- Maximum gradient of 1:14;
- Minimum 1000mm unobstructed width;
- Handrails to both sides;
- Appropriate handrail extensions top and bottom of the ramp;
- TGSIs to top and bottom of the ramp (to AS 1428.4.1:2009); and
- Have a minimum slip resistance rating of X;R10 when dry, and W;R11 when wet.

Stair to comply with Clause 11 of AS1428.1 (2009), including:
- Minimum 1000mm unobstructed width;
- Handrails to both sides;
- Appropriate handrail extensions top and bottom of the stairway;
- TGSIs to the top and bottom of the stairway (to AS 1428.4.1:2009);
- Opaque risers;
- No overhanging treads; and
- Luminance contrasting strips at the stair nosings, with a minimum slip resistance rating of X;R10 when dry, and W;R11 when wet.

Differentiation of vehicle and pedestrian zones is required by:
- Kerb and appropriate kerb ramps where there is a change in level; or
- Provision of warning tactile ground surface indicators and bollards, where the vehicles and pedestrian zones are at grade.

Access Consulting — PHILIP CHUN Building Compliance

Ref: AN16-206191_ Hunter Sports High School
Reviewed by: Lee-May Whong
Date: 13/01/2016

LEGEND

Mandatory requirements under the BCA 2015 and Premises Standards.

Additional enhanced recommendations in accordance with the spirit and intent of the DDA. These items are considered industry best practice and are provided for Client consideration.

- Identification of accessible areas, including accessible car parking and accessible lift(s).
- Identifies locations where a change in level appears to exist and/or requires clarification, such as ramps and stairways.
- Denotes accessible sanitary facilities, including unisex accessible sanitary facilities, and sanitary compartments for people with ambulant disabilities.
- Identifies elements where joinery documentation is required for review, including reception / service counters, kitchenettes, work stations etc.
- Identification of doorways which appear to lack appropriate circulation space to permit independent access by people with disabilities.
- HALS — Identifies rooms / spaces which require confirmation regarding extent of inbuilt amplification systems (other than for emergency purposes), which would require a hearing augmentation listening system to be installed.

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REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	09.10.2015	ISSUE FOR REVIEW	JJM	JPC	
B	26.10.2015	ISSUE FOR REVIEW	JJM	JPC	
C	04.11.2015	PRELIMINARY ISSUE TO QS	JJM	JPC	
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F	18.11.2015	ISSUE TO CONSULTANTS	JJM	JPC	
G	20.11.2015	ISSUE FOR REVIEW	JJM	JPC	
H	26.11.2015	ISSUE FOR 50% COST ESTIMATE	JJM	JPC	
I	01.12.2015	50% SCHEMATIC SUBMISSION	JJM	JPC	

0 25mm 100mm 200mm ON ORIGINAL A1

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works / NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD

DRAWING : DETAIL SITE PLAN

DIMENSIONS IN PREFERENCE TO SCALE. CHECK LEVELS ON SITE PRIOR TO THE ORDERING OF E COMPLETION OF WORKSHOP DRAWINGS. IF IN T ALL ERRORS AND OMISSIONS.

-Proposed_v14.pln — DATE PRINTED : 1/12/2015
DATE : OCT 2015 — SCALES : 1:250
JJM

PROJECT No : 11029 | PHASE : SK | DRAWING No : A010 | REV : I

EJE architecture

OVERALL GROUND FLOOR PLAN

SCALE 1:250

0 1 2 5 10 25 m

Doors to have a minimum clear opening width of 850mm (i.e. 920mm door leaf). Where double doors are used, 850mm clear opening shall apply to the active leaf.

Doors to have clear circulation spaces as per Clause 13.3 of AS 1428.1 (2009).

Ensure a smooth transition between abutting surfaces. A construction tolerance of 3mm for vertical differences is allowable, or 5mm where edges are rounded or bevelled.

Grates and manhole covers are to be installed flush with the adjacent surface with perforations of no greater than:
- 13mm in diameter where perforations are circular;
- 8 to 13mm width with length of no greater than 150mm; or
- 8mm in width with no limited on length.
(Clause 7.5, AS 1428.1:2009)

PHILIP CHUN Access Consulting Building Compliance

Ref: AN16-206191_ Hunter Sports High School
Reviewed by: Lee-May Whong
Date: 13/01/2016

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0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
F	09.11.15	PRELIMINARY ISSUE	GG	GS	
G	18.11.15	PRELIMINARY ISSUE	GG	GS	
H	19.11.15	PRELIMINARY ISSUE	GG	GS	
I	20.11.15	PRELIMINARY ISSUE	GG	GS	
J	23.11.15	PRELIMINARY ISSUE	GG	GS	
K	26.11.15	PRELIMINARY ISSUE	GG	GS	
L	26.11.15	PRELIMINARY ISSUE	GG	GS	
M	30.11.15	PRELIMINARY ISSUE	GG	GS	
N	01.12.15	50% SCHEMATIC SUBMISSION	GG	GS	
O	07.12.15	REVISED 50% SCHEMATIC SUBMISSION	GG	GS	

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works / NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD 2290

DRAWING : GROUND FLOOR PLAN

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

DRAWN :	DATE :	SCALES :
GG	OCT 2015	1:250@A1

PROJECT No :	PHASE :	DRAWING No :	REV :
11029	SK	A100	O

EJE architecture

OVERALL FIRST FLOOR PLAN

SCALE 1:250

0 1 2 5 10 25 m

LEGEND

- GENERAL LEARNING UNIT
- SENIOR LEARNING UNIT
- LIBRARY
- STAFF
- PERFORMING ARTS
- SPECIAL EDUCATION
- STUDENT TOILETS
- COLA'S
- SCIENCE
- VISUAL ARTS
- TAS
- MOVEMENT COMPLEX
- ADMINISTRATION
- INTERNAL CIRCULATION AREAS
- GENERAL STORAGE

PHILIP CHUN Access Consulting Building Compliance

Ref: AN16-206191_ Hunter Sports High School
Reviewed by: Lee-May Whong
Date: 13/01/2016

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0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
G	04.11.15	PRELIMINARY ISSUE TO QS	GG	GS	
H	09.11.15	PRELIMINARY ISSUE	GG	GS	
I	10.11.15	PRELIMINARY ISSUE	GG	GS	
J	19.11.15	PRELIMINARY ISSUE	GG	GS	
K	26.11.15	PRELIMINARY ISSUE	GG	GS	
L	26.11.15	PRELIMINARY ISSUE	GG	GS	
M	29.11.15	PRELIMINARY ISSUE	GG	GS	
N	30.11.15	PRELIMINARY ISSUE	GG	GS	
O	01.12.15	50% SCHEMATIC SUBMISSION	GG	GS	
P	07.12.15	REVISED 50% SCHEMATIC SUBMISSION	GG	GS	

HUNTER SPORTS HIGH SCHOOL STRIVE TO ACHIEVE

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works / NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD 2290

DRAWING : FIRST FLOOR PLAN

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

DRAWN :	DATE :	SCALES :
GG	OCT 2015	1:250@A1

PROJECT No :	PHASE :	DRAWING No :	REV :
11029	SK	A200	P

EJE architecture

Ambulant WCs are required at each bank of toilets per BCA Clause F2.4(c) requirements.

OVERALL SECOND FLOOR PLAN

SCALE 1:250

0 1 2 5 10 25 m

LEGEND

- GENERAL LEARNING UNIT
- SENIOR LEARNING UNIT
- LIBRARY
- STAFF
- PERFORMING ARTS
- SPECIAL EDUCATION
- STUDENT TOILETS
- COLA'S
- SCIENCE
- VISUAL ARTS
- TAS
- MOVEMENT COMPLEX
- ADMINISTRATION
- INTERNAL CIRCULATION AREAS
- GENERAL STORAGE

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0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
C	20.10.15	PRELIMINARY ISSUE	GG	GS	
D	27.10.15	PRELIMINARY ISSUE	GG	GS	
E	02.11.15	PRELIMINARY ISSUE	GG	GS	
F	04.11.15	PRELIMINARY ISSUE TO QS	GG	GS	
G	09.11.15	PRELIMINARY ISSUE	GG	GS	
H	19.11.15	PRELIMINARY ISSUE	GG	GS	
I	26.11.15	PRELIMINARY ISSUE	GG	GS	
J	30.11.15	PRELIMINARY ISSUE	GG	GS	
K	01.12.15	50% SCHEMATIC SUBMISSION	GG	GS	
L	07.12.15	REVISED 50% SCHEMATIC SUBMISSION	GG	GS	

HUNTER SPORTS HIGH SCHOOL — STRIVE TO ACHIEVE

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works
NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD 2290

DRAWING : SECOND FLOOR PLAN

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

DRAWN :	DATE :	SCALES :
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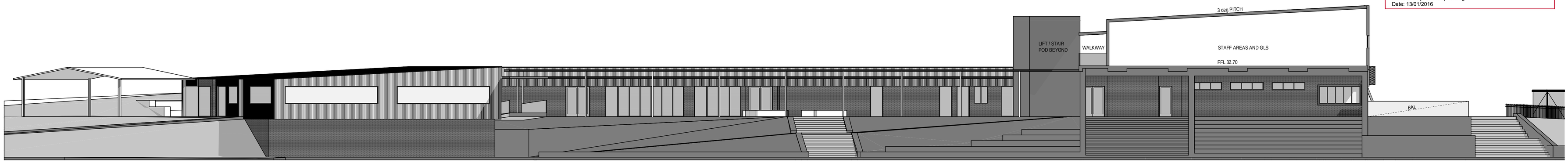
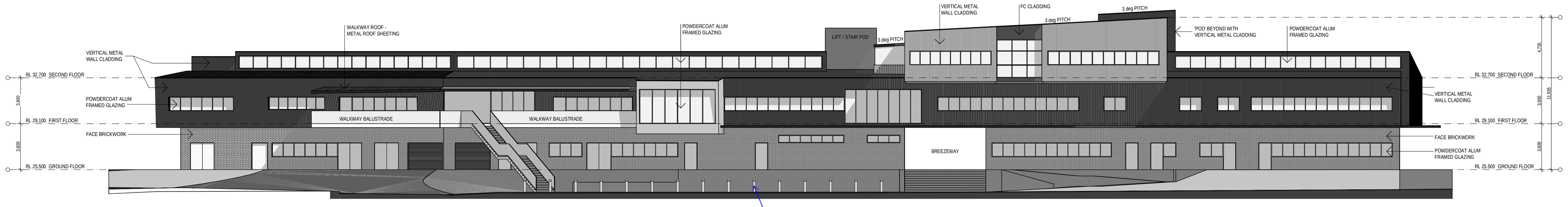
Building Compliance

Ref: AN16-206191_ Hunter Sports High School
Reviewed by: Lee-May Whong
Date: 13/01/2016

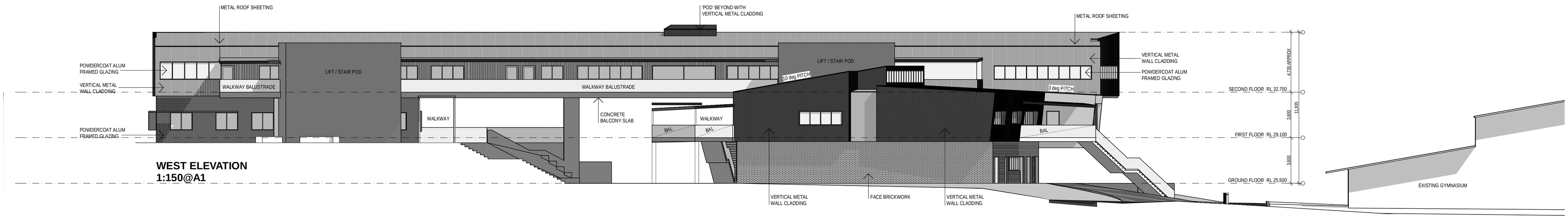


SOUTH ELEVATION 1
1:150@A1



SOUTH ELEVATION 2
1:150@A1

Consider providing a luminance contrast of not less than 30% between bollards and the ground surface.



WEST ELEVATION
1:150@A1

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0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
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C	18.11.2015	ISSUE TO CONSULTANTS	JJM	JPC	
D	26.11.2015	ISSUE FOR 50% COST ESTIMATE	JJM	JPC	
E	01.12.2015	50% SCHEMATIC SUBMISSION	JJM	JPC	
F	03.12.2015	50% SCHEMATIC SUBMISSION (COLOUR)	JJM	JPC	

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works
NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD 2290

DRAWING : ELEVATIONS pg 2 of 2

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 11029_Site-Proposed_v14.pln DATE PRINTED : 3/12/2015

DRAWN :	DATE :	SCALES :
JJM	OCT 2015	1:150

PROJECT No :	PHASE :	DRAWING No :	REV :
11029	SK	A501	F

EJE architecture

Frameless or fully glazed doorways and sidelights shall be clearly marked for their full width. Provide details of proposed visual indication for review, noting the following per Clause 6.6 of AS 1428.1(2009):
- Visual indication to be a solid, non-transparent, contrasting line;
- Minimum 75mm thick;
- Lower edge to be located between 900mm and 1000mm AFFL; and
- Provide 30% luminance contrast when viewed against the floor surface or surfaces within 2m of the glazing on the opposite side.

ADMIN APPROACH VIEW WEST

VIEW NORTH TO ADMIN & COURTYARD

VIEW SOUTH TO FOOD TECH & GLS

VIEW EAST TO ADMIN & COURTYARD

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0 25mm 100mm 200mm ON ORIGINAL A1

REV	DATE	COMMENTS	DRN	CHKD	VRFD
A	01.12.2015	50% SCHEMATIC SUBMISSION	JJM	JPC	

Access Consulting
PHILIP CHUN Building Compliance
Ref: AN16-206191_ Hunter Sports High School
Reviewed by: Lee-May Whong
Date: 13/01/2016

HUNTER SPORTS HIGH SCHOOL STRIVE TO ACHIEVE

PROJECT : HUNTER SPORTS HIGH SCHOOL
MAJOR CAPITAL WORKS UPGRADE

CLIENT : NSW GOVERNMENT Public Works
NSW GOVERNMENT Education

SITE : PACIFIC HIGHWAY
GATESHEAD 2290

DRAWING : RENDERS pg 1 of 2

WORK IN FIGURED DIMENSIONS IN PREFERENCE TO SCALE. CHECK DIMENSIONS AND LEVELS ON SITE PRIOR TO THE ORDERING OF MATERIALS OR THE COMPLETION OF WORKSHOP DRAWINGS. IF IN DOUBT ASK. REPORT ALL ERRORS AND OMISSIONS.

FILENAME : 11029_Site-Proposed_v14.pln DATE PRINTED : 1/12/2015

DRAWN :	DATE :	SCALES :
JJM	OCT 2015	1:100

PROJECT No :	PHASE :	DRAWING No :	REV :
11029	SK	A900	A

EJE architecture

APPENDIX B

MANDATORY ACCESS COMPLIANCE REQUIREMENTS

B1 ACCESSIBLE CARPARKING

Accessible carparking to be a minimum of 2400mm wide with a shared area to one side of the space 2400mm wide. Circulation space can be shared between adjacent accessible carparks. For a single space, a total width of 4800mm is required. The car space and the shared zone should be a minimum of 5400mm long.

Provide a bollard to the shared circulation space as illustrated in AS2890.6, Figure 2.2.
The maximum allowable crossfall of an accessible carparking area is to be 1:40, (1:33 for outdoor spaces). This crossfall applies both parallel and perpendicular to the angle of parking.

For covered carparking, the clear height of the accessible carparking space to be 2500mm as illustrated in AS2890.6, Figure 2.7 and approach path is to have a minimum of 2200mm.

Designated accessible carparking is to be identified using the International Symbol for Access (ISA) and line marked as specified in AS2890.6.

B2 EXTERNAL PATHWAYS AND WALKWAYS

The minimum unobstructed width of all pathways and walkways is to be 1000mm (AS1428.1 (2009) Clause 6.3). A width of 1200mm is preferred for compliance with AS1428.2 (1992).

All pathways and walkways are to be constructed with no lip or step at joints between abutting surfaces. A construction tolerance of 3mm is allowable, 5mm for bevelled edges -refer to Figure 6 of AS1428.1 (2009).

The maximum allowable crossfall of pathways and walkways is to be 1:40. The surfaces of an accessible path of travel are to be slip-resistant.

The ground abutting the sides of the pathways and walkways should follow the grade of the pathway and extend horizontally for 600mm. This is not required where there is a kerb or handrail provided to the side of the pathway (refer to AS1428.1 (2009) Clause 10.2).

Maximum allowable gradient of the walkway is 1:20 and maximum length between landings to be 15m (for 1:20 gradient). Landings to be a minimum 1200mm in length (where there is no change in direction). For changes in direction of 180º, landings to be 1540mm in length – refer to AS1428.1 (2009) Clause 10.8.

B3 KERB RAMPS

Kerb ramps to comply with AS1428.1 (2009) Amendment 1 Clause 10.7.

Maximum gradient of the kerb ramps to be 1:8 and maximum length to be 1520mm (providing a maximum height of 190mm).

Kerb ramps to have a non-slip surface as required by AS1428.

A tooled joint should be provided between parts of the kerb ramp to assist persons with a vision impairment with orientation.

B4 ACCESSIBLE RAMPS

Ramps are to comply with AS1428.1 (2009) Clause 10.3. Maximum allowable gradient of the ramp is 1:14, minimum clear width to be 1000mm and maximum length between landings to be 9m (for 1:14 gradient).

Accessible ramp are to have a maximum rise of 3.6m (BCA Part 3.11).

Externally, ramps are required to be set back a minimum 900mm from the property boundary (AS1428.1 (2009) Clause 10.3 (f)). This allows tactile indicators and handrail extensions to occur within the boundary and not protrude into the footpath area.

Internally, ramps are required to be set back a minimum 600mm from an internal corridor (AS1428.1 (2009), Clause 10.3 (f)). This allows tactile indicators and handrail extensions to be provided an not protrude into the corridor area.

Provide handrails, with extensions, to both sides of the ramp to comply with AS1428.1 (2009), Clause 12. Handrails are to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails are required on both sides of the ramp to cater for left and right handed disabilities.

Where a ramp is not enclosed, provide kerb rails in accordance with AS1428.1 (2009). The height of kerb rails is to be less than 65mm or greater than 150mm above the finished surface level. This is to ensure that the foot plate of a wheelchair cannot become lodged on the kerb rail.

Provide tactile indicators at the top and bottom of the ramps to comply with BCA Part D3.8 and AS1428.4.1 (2009). Tactile indicators are to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour. Tactile indicators at the top and bottom of the ramps to be 600-800mm deep across the width of the ramp and set back 300mm from the edge of the ramp (refer AS1428.4 (2009) Figure A1).

Tactile indicators will be required at a mid-landing where the ramp is not continuous. Where the handrail is continuous along both sides of the mid-landing, tactile indicators are not required.

B5 PEDESTRIAN CROSSINGS

Where kerb ramps are to be provided at pedestrian crossings to provide an accessible path of travel for persons with a disability they are to comply with AS1428.1 (2009) Clause 10.7.

Where a pedestrian crossing is at the same level as the roadway, provide tactile indicators to both sides of the roadway to alert persons with a vision impairment of the hazard. Tactile indicators are to be 600-800mm deep across the width pedestrian crossing. Tactile indicators are to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

B6 BUILDING ENTRANCES

Entrances are to comply with AS1428.1 (2009) Clause 13 as part of the accessible path of travel.

Doors are to have a minimum clear opening width of 850mm to comply AS1428.1 (2009) Clause 13.2.

Door thresholds are to be level to provide seamless entry to the building. The maximum allowable construction tolerance is 3mm for compliance with AS1428.1 (2009), 5mm where bevelled edges are provided between surfaces – refer to Figure 6.

Door to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1 (2009) Clause 13.5)

For glass doors, provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid pattern to AS1428.1 (2009) Clause 6.6.

B7 TACTILE INDICATORS AT THE BUILDING ENTRANCE

BCA Clause 3.8 (a) (v) states that for a building that is required to be accessible, tactile ground surface indicators must be provided to warn people who are blind or have a vision impairment that they are approaching – in the absence of a suitable barrier – an accessway meeting a vehicular way adjacent to

any pedestrian entrance to a building if there is no kerb or kerb ramp at that point, except for areas exempted by D3.4.

Tactile indicators are to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators are to be 600-800mm deep across the width of the path of travel.

B8 DOORWAYS

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

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

Doorways to have minimum 30% luminance contrast as described in AS1428.1 (2009), Clause 13.1.

Doors to have hardware within the accessible height range of 900-1100mm above the finished floor level (AS1428.1 (2009), Clause 13.5) and allows for single handed operation.

B9 TACTILE INDICATORS

Installation of tactile indicators is to be in accordance with AS1428.4.1 (2009).

Tactile indicators are to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators are to be 600-800mm deep across the width of the path of travel.

B10 VISUAL INDICATION TO GLAZING

Provide decals to assist persons with a vision impairment. Decals to be solid and have a minimum 30% luminance contrast to the background colour and be not less than 75mm high located within the height range of 900-1100mm above the finished floor level. Decals are to be solid pattern to AS1428.1 (2009) Clause 6.6.

B11 SIGNAGE

The BCA has requirements for Braille and tactile signage within Specification D3.6. This provides information for the provision of statutory signage
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:

- Each sanitary facility
- Any space with a hearing augmentation system
- Accessible unisex facilities and indicate whether the facility is suitable for left or right handed use
- Ambulant accessible sanitary facilities on the door of the cubicle
- Where an entrance is not accessible, directional signage to identify nearest accessible entrance
- Where a bank of sanitary facilities is not provided with an accessible sanitary facility, directional signage to identify nearest accessible sanitary facility.
- Each door required by Part E4.5 to be provided with an exit sign and state “Exit” and “Level” followed by either the floor level number, the floor descriptor or combination of these.

In addition, AS1428.2 (1992) contains additional information as to the form of signage.

Signage should be easily comprehended by all building users. In this regard, the use of pictograms is highly recommended. The message that the sign conveys should be unambiguous.

Placement of signage should be considered at the following locations:

- Where it is clearly visible to people in bot a standing and seated position.
- At changes in direction.
- At locations where directional decisions are made.
- As required to amenities and exits.

B12 HEARING AUGMENTATION

A hearing augmentation system must be provided where an inbuilt amplification system is provided, other than one used for emergency purposes only as required by BCA Part D3.7.

Further, for buildings that are required to be accessible, the BCA (Part D3.7) requires hearing augmentation systems at service counters **where the user is screened from the service provider.**

While it is not referenced by the BCA, AS1428.5 (2010): Communication for people who are deaf or hearing impaired contains information regarding assisted listening systems and can be used to ensure equitable facilities are provided for this user group.

The standard provides information relating to design solutions and equipment for the following:

- Assisted listening systems.
- Early warning systems
- Visual display systems for intercommunication, public announcements and the like
- Telephone services and telecommunications available to the public.

B13 WHEELCHAIR SEATING

Where fixed seating is provided in an assembly building, the required wheelchair seating spaces (number per BCA) are required to be:

- Accessed via an accessible path of travel.
- Located adjacent to, and at the same level as, other seating in a row.
- Located to allow lines of sight comparable to those for general viewing areas.

The special requirement for the footprint of a single wheelchair seating space is 800 x 1250mm.

B14 PASSENGER LIFTS

Every passenger lift in an accessible building must be suitable for use by people with a disability and offer compliance with AS1725.12. Typically, the following is required to be provided:

Lift dimensions

- Lift floor dimensions of not less than 1100mm x 1400mm for lifts which travel not more than 12m.
- Lift floor dimensions of not less than 1400mm x 1600mm for lifts which travel more than 12m.
- Provision for a stretcher facility within at least one emergency lift required by E3.4, or where an emergency lift is not required, if passenger lifts are installed to serve any storey above an effective height of 12m, in at least one of those lifts to serve every floor served by lifts.

Lift Features

- Handrail complying with the provisions for a mandatory handrail in AS1735.12.
- Minimum clear door opening complying with AS1735.12.
- Passenger protection system complying with AS1735.12.
- Lift landing doors at the upper landing.
- Lift car and landing control buttons complying with AS173.5.12.
- Lighting in accordance with AS1735.12.

- 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.

All passenger lifts serving more than 2 levels must possess:

- Automatic audible information within the lift car to identify the level each time the car stops.
- Audible and visual indications at each lift landing to indicate the arrival of the lift car.
- Audible information and audible indication must be provided in a range between 20-80dB(A) at a maximum frequency of 1500Hz.

B15 STAIRS

Stair construction is to comply with AS1428.1 (2009) Clause 11.1.

Stairs are to have closed or opaque risers. Open risers cause confusion for persons with a vision impairment and may trigger conditions such as epilepsy due to light penetrating through the open risers.

Where the stair intersects with an internal corridor, the stair shall be set back in accordance with AS1429.1 (2009) Figure 26C/D to allow adequate space for handrail extensions and tactile indicators.

Provide handrails, with extensions, to both sides of the stair (AS1428.1 (2009) Clause 11.2). Handrails are to have an external diameter between 30-50mm to assist persons with a manual disability such as arthritis. Handrails should be continuous around the landings where possible. Handrails are required on both sides of the stair to cater for left and right handed disabilities. A central handrail is also an acceptable solution where adequate width is available.

Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser.

Stair nosings shall not project beyond the face of the riser.

Provide tactile indicators at the top and bottom of the stair to comply with BCA Part D3.8 and AS1428.4.1 (2009).

Tactile indicators are to be detectable, durable, non-slip and have a minimum 30% luminance contrast to the background colour.

Tactile indicators at the top and bottom of the stair to be 600-800mm deep across the width of the stair set back 300mm from the edge of the stair.

B16 FIRE ISOLATED STAIRS

Stair nosings to have minimum 30% luminance contrast strip 50-75mm wide to the top of the stair tread to assist persons with a vision impairment. The strip can be set back 15mm from the edge of the riser. Stair nosings shall not project beyond the face of the riser.

B17 UNISEX ACCESSIBLE SANITARY FACILITIES

Set-out of fixtures and fittings within the accessible sanitary facilities to offer compliance with AS 1428.1 (2009) Clause 15 are as follow:

- Crucial dimensions for the toilet are 450mm from centreline of pan to side wall, 800mm from front of pan to rear wall and a seat height of 470mm.
- A minimum clear dimension of 1400mm is required from the toilet pan to any other fixture (see figure 43).
- For the basin, a minimum dimension of 425mm is required from the centreline of the basin to the side wall and height of basin to be between 800 and 830mm.
- Grabrails are to be provided at the side and rear of the toilet in compliance with AS1428.1 at a height of 800mm.

- Taps are to have lever handles, sensor plates or similar controls. For lever taps a minimum of 50mm clearance to be provided to adjacent surfaces.
- Toilet seat shall be of the full round type, be securely fixed in position when in use and have fixings that create lateral stability. They should be load rated to 150kg, have a minimum 30% luminance contrast to the background colour (e.g. pan, wall or floor) and remain in the upright position when fully raised.
- Provide a backrest to accessible toilets to comply with AS1428.1, Clause 15.2.4.

Accessible toilet to be identified using the International Symbol for Access. Pictograms / lettering to have a minimum 30% luminance contrast to the background colour. Signage is to comply with AS1428.1, Clause 8 and include information in tactile and Braille formats (as required by the BCA).

Doorways are to have a minimum clear opening width of 850mm to comply AS1428.1 (2009) Clause 13.2 as part of the accessible path of travel. Adequate circulation area at the latch side of the doorway is required to allow independent access to the facility. For details refer to AS1428.1 (2009) Figure 31.

Door hardware are to be located within the accessible height range of 900-1100mm above the finished floor level. The use of lever handles is encouraged to assist persons with a manual disability such as arthritis.

Controls within the accessible toilet facilities, such as light switches, are to be in the accessible height range of 900-1100mm above the finished floor level to comply with AS1428.1 (2009) Clause 14. Controls should be located not less than 500mm to a corner.

B18 UNISEX ACCESSIBLE SHOWERS

Showers are to comply with AS 1428.1 Clause 15.5 and include accessible features such as grabrails, adjustable height shower rose and fixtures within an accessible height range.

The minimum dimensions of an accessible shower are to be 1160 x 1000mm. A folding seat, at a height of 470mm is to be provided. All taps to be located within the height range of 900-1100mm above the finished floor level.

Circulation space in front of the shower is to be provided as illustrated in AS1428.1 (2009) Figure 47.

B19 PEOPLE WITH AMBULANT DISABILITIES CUBICLES (PAD)

PAD cubicles within male and female toilets are to be in compliance with AS1428.1 (2009) Clause 16 as follow:

- Width of PAD cubicles is to be 900-920mm.
- Provide grabrails to PAD cubicles to comply with AS1428.1 (2009) Clause 17 and Figure 53A.
- Doors are to have a minimum opening width of 700mm and comply with AS1428.1 (2009) Figure 53B.
- Provide signage to the PAD cubicles to comply with AS1428.1 (2009) Clause 16.4.
- Provide 900 x 900mm circulation space in front of pan and each side of doors on path to the toilet. Door is not to swing into circulation spaces.

APPENDIX C

BEST PRACTICE RECOMMENDATIONS

E1 FIRE EGRESS FOR PEOPLE WITH DISABILITIES

HREOC Advisory notes on access to premises, Item 5.21 states that, in an emergency, all users should be provided with a means of egress from a premises to a place of comparative safety. This ensures people with disabilities to be provided with the same level of protection as other premises users or building occupants.

We recommend that signage displaying the International Symbol of Access (ISA) be provided to identify any places of comparative safety provided. Signage should state that the area is safe in the event of an emergency. Evacuation procedures for the building should address the provision of places of comparative safety for people with limited mobility. Signage should comply with BCA D3.6 and BCA Specification 3.6 and have braille and tactile components.

We also recommend that as a part of the emergency evacuation plan for the building, egress for persons requiring assistance be addressed. The provision of places of comparative safety within fire isolated passages would be advantageous to persons with a disability. This consists of a waiting area large enough to accommodate a wheelchair where persons can wait for assistance from emergency services. The waiting area should be identified with appropriate signage that incorporates the International Symbol for Access.

E2 RECEPTION/SERVICE COUNTERS

We recommend the provision of accessible reception/service counters designed in accordance with AS1428.2 (1992), Part 24.1. Height of the counter is to be between 750mm (±20) and 850mm (±20) above the finished floor level and have foot and knee clearance under the counter as outlines in Figure 25. The minimum width of the accessible counter and clearance below is 900mm.

The level of access to be provided may be dependent upon the level of interaction intended, such as high level interaction, minimal and verbal and visual interaction only.

E3 SEATING TO PUBLIC AREAS

Where seating is located within public areas, a proportion of accessible seating should be provided offering compliance with AS1428.2:1992 Clause 27.

E4 SIGNAGE AND WAYFINDING

Signs and symbols should be provided to inform all users. Provide a signage system which informs all users (HREOC Advisory notes on access to premises, Item 5.15).

The development of a wayfinding strategy with consideration to landmarks and visual features of the development is recommended. This would include the use of varied finished surfaces to differentiate areas of each building.

Signs including symbols, numbering and lettering shall be located where they are clearly visible to people in both a seated and standing position. That is, they should be placed within a zone at a height not less than 1400 mm and not more than 1600 mm above the plane of the finished floor. Where space in this zone is used up, the zone for placement of signs may be extended downward to not less than 1000 mm from the plane of the finished floor. This height assists people to read from either a seated or a standing position, and also assists people with low vision to read the information on the sign. Letters and symbols in relief assist people with severe visual disabilities.

Where a sign can be temporarily obscured, e.g. in a crowd, the sign should be placed at a height of not less than 2000 mm above the plane of the finished floor.

Signs to assist way-finding should be provided at changes of direction and at sites where directional decisions are made, to enable the appropriate decisions to be made before a change of direction occurs.

Where the surface of the wall surrounding the sign provides insufficient contrast (e.g. patterned wallpapers), the background area to the sign may need to be increased in size.

The message that the sign carries should be unambiguous.
Tactile floor plans or maps and prerecorded auditory instructions at the main entrance and at other useful locations can be of assistance to people with visual impairment.

E5 DEPTH OF DOOR RECESS

Where the depth of the door recess (measured to the face of the door) exceeds 300mm, the door must be automated to enhance access.

E6 STAFF WORKSTATIONS

Consideration should be given to the provision of accessible staff workstations within the building. Height adjustable workstations which can be adjusted by the user are highly recommended, with an adjustment capability between 610 and 760mm from the floor (AS 4442 (1997) Clause 2.2.2 (b)).
Where provided, fixed height workstations to be provided at a height between 700 and 720mm (AS 4442 (1997) Clause 2.2.4).

This may form part of a client management plan and associated operational procedures relating to individual facilitation of employees with temporary or permanent disabilities

E7 KITCHEN / KITCHENETTE FACILITIES

Consideration should be given to the provision of accessible kitchen /kitchenette facilities which are designed and constructed in accordance with AS 4299 (1995) Clause 4 and AS 1428.2 (1992) Clause 24.

E8 LUMINANCE CONTRAST

Luminance contrast is the light reflected from one surface or component, compared to the light reflected from another surface or component. A luminance contrast of 30% between two surfaces is generally accepted as a minimum when considering it as a navigational / wayfinding tool for people with Vision impairment.

In this regard, we recommend that the provision of a minimum 30% luminance contrast between surfaces be adopted in the following instances to assist people with vision impairment negotiate the built environment:

- Provide luminance contrast between walls and doors.
- Generally, contrasting wall and floor surfaces should be provided. At a minimum, skirting boards which provide suitable contrast to the floor surface assist people with low vision in identifying perimeters of corridors and accessible spaces.
- For joinery, Counters or benches to achieve a minimum 30% luminance contrast with the counter / bench face to which it is viewed. Additionally, Counter / bench surfaces to have a matte or low sheen finish;
- For handrails and grabrails, provide a luminance contrast between the rail and the wall colour;
- For signage, provide luminance contrast so that message can be conveyed – luminance contrast required between the information in the sign and base sign colour.

Note: Statutory requirements for luminance contrast include tactile indicators, stair nosing strips, toilet seats and door / wall identification.

E9 LOCKERS

The provision of lockers at a suitable height for people using a wheelchair is recommended. The height range for accessible lockers to be 230mm-1350mm AFFL based on the reach ranges prescribed in AS1428.2 (1992).

E10 FURNITURE HARDWARE

Generally, drawer and cupboard fronts that have recessed finger pull handles do not comply with AS 1428.1 (2009) Clause 13.5.2(b) and therefore are not recommended.

We recommend the use of D-type pull handles to furniture generally which provide a minimum 35mm clearance between the rear face of the handle and the face of the drawer.

E11 LIGHTING AND GLARE

Minimum interior lighting levels of maintenance illumination are to be in accordance with AS1680.1 (1990) and with consideration to AS1428.2 (1992) Clause 19. Consistent lighting levels should be provided throughout, without pools of light or dark areas.

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